

This article was downloaded by: [West Virginia University], [Dr Alan K. Goodboy]  
On: 28 January 2014, At: 08:04  
Publisher: Routledge  
Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered  
office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## Journal of Intercultural Communication Research

Publication details, including instructions for authors and  
subscription information:

<http://www.tandfonline.com/loi/rjic20>

### Revisiting the Relationship between Teacher Confirmation and Learning Outcomes: Examining Cultural Differences in Turkish, Chinese, and American Classrooms

Zachary W. Goldman, San Bolkan & Alan K. Goodboy

Published online: 24 Jan 2014.

To cite this article: Zachary W. Goldman, San Bolkan & Alan K. Goodboy (2014) Revisiting the Relationship between Teacher Confirmation and Learning Outcomes: Examining Cultural Differences in Turkish, Chinese, and American Classrooms, Journal of Intercultural Communication Research, 43:1, 45-63, DOI: [10.1080/17475759.2013.870087](https://doi.org/10.1080/17475759.2013.870087)

To link to this article: <http://dx.doi.org/10.1080/17475759.2013.870087>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms &

Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

# Revisiting the Relationship between Teacher Confirmation and Learning Outcomes: Examining Cultural Differences in Turkish, Chinese, and American Classrooms

Zachary W. Goldman, San Bolkan, & Alan K. Goodboy

*This study investigates the relationship between teacher confirmation behaviors (i.e., responding to questions, demonstrating interest, interactive teaching style) and student learning outcomes (i.e., affective learning, student motivation) across three cultures: Turkey, China, and the United States. Results indicate the confirmation-learning relationship was significantly stronger in the United States and China than it was in Turkey. The findings from this study suggest that teacher confirmation is an effective teaching behavior that transcends cultures, yet the magnitude of its importance on student learning appears more relevant in America, and to a lesser extent in China, than it is in Turkey.*

*Keywords: Teacher confirmation; Turkey; China; United States; Affective Learning; Student Motivation*

*(Received 27 September 2013; accepted 25 November 2013)*

A growing criticism and challenge facing instructional communication scholars is that an “overwhelming proportion of instructional communication research has been conducted by U.S. researchers representing the Anglo culture of the United States and has involved participants who were also representing the predominant

---

Zachary W. Goldman (M.A., West Virginia University, 2012) is a Ph.D. student in the Department of Communication Studies at West Virginia University. San Bolkan (Ph.D., University of Texas-Austin, 2007) is an Associate Professor in the Department of Communication Studies at CSU-Long Beach. Alan K. Goodboy (Ph.D., West Virginia University, 2007) is an Associate Professor in the Department of Communication Studies at West Virginia University. Correspondence concerning this manuscript should be addressed to Zachary W. Goldman, Department of Communication Studies, 108 Armstrong Hall, P.O. Box 6293, West Virginia University, Morgantown, WV 26506–293. Email: [zgoldman@mix.wvu.edu](mailto:zgoldman@mix.wvu.edu)

culture” (McCroskey & McCroskey, 2006, p. 42). Thus, the challenge that some instructional communication scholars have recently undertaken (e.g., Goodboy, Bolkan, Beebe, & Shultz, 2010; Goodboy, Bolkan, Myers, & Zhao, 2011; Zhang, 2007) is determining the extent to which effective teaching practices found in the United States translate to classrooms from other cultures. To date, these attempts have yielded mixed results. Early conclusions seem to suggest that some of the effective teaching behaviors studied predominately in the United States effectively transcend cultures (e.g., teacher clarity, Zhang & Huang, 2008); however, it also appears that several of the effective teaching behaviors studied in instructional communication operate differently and vary in effectiveness depending on the cultural context and expectations (e.g., instructor immediacy; Zhang, & Oetzel, 2006).

Teacher confirmation is one instructional behavior that has been shown to foster student learning and enhance student motivation in the classroom (Ellis, 2000, 2004). Waldeck, Plax, and Kearney (2010) explicitly expressed the importance of confirmation and instruction; they noted that teachers who confirm students in the classroom are likely perceived as caring and understanding, and also help to promote student engagement and learning. To date, however, the applicability and effectiveness of teacher confirmation in various cultures is unknown because investigations have been limited to classrooms and students in the United States. As McCroskey and McCroskey (2006) noted, it is highly doubtful that instructional communication is entirely effective across all cultures; however, it remains largely unclear as to which effective teaching behaviors translate across cultures and which effective teaching behaviors are culturally determined. Congruently, research has yet to determine the utility of teacher confirmation as a universally effective teaching behavior and has yet to demonstrate if confirmation operates similarly in classrooms outside of the United States. Therefore, the purpose of this study was to determine if the relationship between teacher confirmation and traditional learning outcomes is stable across cultures. Specifically, this study sought to determine if any differences exist between the effects of teacher confirmation on affective learning and student motivation in Turkish, Chinese, and American classrooms.

## Review of Literature

Teacher confirmation is “the transactional process by which teachers communicate to students that they are endorsed, recognized, and acknowledged as valuable, significant individuals” (Ellis, 2000, p. 266). The root of confirmation research originated within the interpersonal context (Laing, 1961; Sieburg, 1973). Buber (1957) argued that confirmation may be the most significant feature of human communication, suggesting that the interactional nature of the concept helps to construct and confirm our identity as human beings. Laing (1961) stated that confirmation is the process through which individuals are recognized and that it varies by “intensity and extensity, [as well as] quality and quantity” (p. 99). Watzlawick, Bavelas, and Jackson (1967) discussed confirmation as the “greatest single factor

ensuring mental development and stability” (p. 84). Cissna and Sieburg (1981) furthered the understanding of confirmation by suggesting that confirming communication allows others to feel endorsed, recognized, and acknowledged.

Building upon these early foundations, Ellis (2000) sought to determine the empirical effects of confirming behavior in the instructional context. Ellis conducted focus groups with college students with the intent of understanding what teachers do to be perceived as confirming in the classroom. Her results suggested four general dimensions of behavioral patterns through which teachers communicate confirmation: (1) responding to student questions and/or comments, (2) demonstrating interest in the student learning process and student growth, (3) interactive teaching style, and (4) absence of disconfirmation (Ellis, 2000). The fourth dimension was later dropped as it failed to cross-validate in separate samples; thus, confirmation in the instructional context has since been operationalized as a three-dimensional construct (Ellis, 2000; Goodboy & Myers, 2008).

Teacher confirmation has been shown to be a strong and significant predictor of student learning outcomes (Ellis, 2000, 2004; Goodboy & Myers, 2008). Ellis (2000) found that teacher confirmation behaviors explained unique variance in both affective and cognitive learning. Ellis (2004) advanced these findings by suggesting that the relationship between teacher confirmation and learning was mediated through students’ receiver apprehension. Receiver apprehension refers to the amount of anxiety a receiver experiences when decoding and processing information, and encompasses fears of “misinterpreting, inadequately processing, and/or not being able to adjust psychologically to messages sent by others” (Wheless, 1975, p. 263). In the classroom, Ellis (2004) found that students’ receiver apprehension had a strong inverse relationship with teacher confirmation and mediated the relationships between confirming behaviors and learning outcomes. Similarly, students’ perceived understanding (Schrodt, Turman, & Soliz, 2006) and perceptions of teacher credibility (Schrodt et al., 2009) have also been shown to mediate the relationship between teacher confirmation behaviors and student learning.

In addition to traditional learning outcomes, other positive effects have been linked with teacher confirmation. Horan, Houser, Goodboy, and Frymier (2011) indicated that these effects are noticeable as early as the first four weeks in a semester-long course. Teacher confirmation has been associated positively with classroom connectedness and in-class involvement (Sidelinger & Booth-Butterfield, 2010), pro-social teacher power usage (Turman & Schrodt, 2006), students’ perceived predicted outcome value (Horan et al., 2011), teacher evaluations (Schrodt et al., 2006), and student effort and interest (Campbell, Eichhorn, Basch, & Wolf, 2009). The benefits of teacher confirmation have also been validated within an experimental setting. Goodboy and Myers (2008) conducted an experiment by manipulating teachers’ confirming behaviors in a live lecture and concluded that when teachers were confirming, students reported communicating more for relational, functional, and participatory motives, and less for the excuse-making motive (Martin, Myers, & Mottet, 1999). Furthermore, the authors validated positive associations between teacher confirmation and student

participation, affective learning, cognitive learning, state motivation, and satisfaction (Goodboy & Myers, 2008).

In sum, the literature on confirmation has led scholars to conclude that teacher confirmation behaviors are influential on student communication and learning outcomes for three reasons (Goodboy & Myers, 2008). First, confirming messages by an instructor promote active student learning in the classroom (Ellis, 2004). Second, student perceptions of teacher confirmation contribute to a supportive classroom climate (Sidelinger & Booth-Butterfield, 2010), which in turn, help to promote student learning (Frisby & Martin, 2010; Johnson, 2009). Third, confirmation behaviors demonstrate that a teacher cares and has a desire to get to know the students, which then influences students' affect toward the instructor and the course content (Ellis, 2000). Collectively, these reasons demonstrate the positive contributions that teacher confirmation can have on student learning; yet, similar to McCroskey and McCroskey's (2006) criticism, nearly all of the studies conducted on teacher confirmation (with the exception of Hsu, 2012) have focused primarily on American students and American teachers. Thus, further research is needed to validate the relationship between confirmation and learning outcomes across cultures.

### *Learning Outcomes*

In the current study, two traditional learning outcomes (i.e., affective learning, student motivation) were assessed in relation to teacher confirmation due to their traditionally strong association with the effective teaching behavior (Ellis, 2000; Goodboy & Myers, 2008). *Affective learning* refers to students' feelings and degrees of acceptance toward the subject matter of a course (Krathwohl, Bloom, & Masia, 1964), and has been described as the process to which students internalize positive attitudes toward a particular course or instructor (Kearney, 1994). The process of affective learning can range from selective attention and emotional response, to behavioral commitment and internalization of course concepts (Chory-Assad, 2002). Numerous instructional communication scholars (e.g., Andersen, 1979; McCroskey et al., 1985; Scott & Wheelless, 1975) have argued that affective learning is multidimensional, and often consists of three dimensions: (a) affect for the course content, (b) affect toward the instructor, and (c) affect regarding the behaviors which are recommended by the course (McCroskey, 1994).

*Student motivation* refers to the internal drive that arouses and/or directs student attempts to obtain academic knowledge or skills from classroom activities (Brophy, 1987). Christophel (1990) indicated that students' trait motivation had little effect on learning outcomes; rather, it was students' state motivation toward a particular class which influenced how well they performed in the course (Christophel, 1990). Since then, instructional scholars have primarily attempted to investigate and understand the predictors and related outcomes associated with students' state motivation (e.g., Christensen & Menzel, 1998; Frymier, 1993; Gorham & Christophel, 1992).

Goodboy and Myers (2008) indicated that both affective learning and student motivation fall under a larger umbrella of student learning outcomes that are associated positively with effective teaching behaviors. The relationships between instructor behaviors, student motivation, and student learning have been extensively examined by instructional communication scholars (e.g., Christophel & Gorham, 1995; Christensen & Menzel, 1998; Comadena, Hunt, & Simonds, 2007; Gorham & Millette, 1997; Myers, 2002). Instructor behaviors such as nonverbal immediacy (Christophel, 1990), verbal immediacy (Gorham, 1988), teacher clarity (Chesebro & McCroskey, 2001), self-disclosure (Cayanus & Martin, 2008), and instructor humor (Wanzer & Frymier, 1999) have all demonstrated positive relationships with affective learning and motivation. As was previously discussed, teacher confirmation behaviors have also been related positively to students' affective learning and motivation in American classrooms (Ellis, 2000, 2004; Goodboy & Myers, 2008). In some instances, confirmation has been shown to be the strongest predictor of American students' learning outcomes, even in comparison to other effective teaching behaviors such as immediacy and clarity (Schrodt et al., 2009). What remains unclear, however, is whether or not this relationship is stable across cultures, and if the same effects exist between teacher confirmation behaviors and student learning outcomes in classrooms outside of the United States.

### *Rationale*

Previous research has provided evidence that effective instructional behaviors such as teacher confirmation may vary in effectiveness depending on culture (Goodboy et al., 2011; McCroskey, Sallinen, Fayer, Richmond, & Barraclough, 1996; Zhang & Oetzel, 2006). According to Bruner (1996), "learning and thinking are always situated in a cultural setting and always dependent upon the utilization of cultural resources" (p. 4). Similarly, Neulip (1997) argued that the cultural context in which communication occurs is arguably the characteristic that best defines human interaction. Thus, while effective instructor behaviors in the United States have been found to yield similar results in other cultures (e.g., Zhang & Huang, 2006), it is important to continue exploring these effects and to study "instructional communication from a wholly different culture's assumptions" (McCroskey & McCroskey, 2006, p. 44). For example, numerous studies conducted by instructional scholars have explored immediacy in college classrooms throughout various countries such as Australia, Finland, and Puerto Rico (McCroskey, Richmond, Sallinen, Fayer, & Barraclough, 1995, McCroskey, et al., 1996), Japan (Neulip, 1997), Kenya (Johnson & Miller, 2002), and China (Myers, Zhong, & Guan, 1998). The general conclusion from these studies is that although immediacy is beneficial in nearly all classroom contexts, the magnitude of its effects may differ and may potentially require unique operationalization depending upon the culture (Zhang & Oetzel, 2006). Although immediacy is only one effective teaching behavior, this particular line of research, and recent studies since (e.g., Goodboy et al., 2010,

2011; Goodboy, Myers, & Bolkan, 2012), have provided further justification for investigating effective teaching practices across cultures.

In the current study, the authors elected to focus on the relationship between confirmation behaviors and learning outcomes in three different countries: United States, China, and Turkey. Together, these three countries have several unique characteristics regarding their educational practices and norms that may influence how students perceive and ultimately react to teaching behaviors such as confirmation. Although it is beyond the scope of this investigation to highlight all of the behavioral and philosophical differences between the cultures involved, several characteristics are worth noting about the views, beliefs, and behaviors toward education as they may influence the perception of teacher confirmation in the classroom.

American college classrooms have been described as low-context, low power-difference, and relationally oriented (Neulip, 1997). In comparison to other countries, the instructor–student relationship in America is often characterized with open communication, relational closeness, and emotional support (Zhang, 2009). American instructors tend to display more immediacy and relationally oriented behaviors (e.g., affinity-seeking strategies) than instructors from other countries (McCroskey et al., 1995, 1996; Neulip, 1997; Roach & Byrne, 2001). Overall, American college classrooms continue to move toward a student-centered approach to education that takes into consideration the attitudes and beliefs of students when implementing teaching behaviors and curricula (Smithee, Greenblatt, & Eland, 2004)

Chinese college classrooms have been described as high-context learning environments (Zhang, 2005), collaborative and collectivistic in nature (Biggs & Tang, 1996), and hierarchically structured with a high power distance between teacher and student (Hofstede, 1980). In China, the instructor–student relationship is characterized by student respect and admiration (Huang & Brown, 2009; Myers et al., 1998). Chinese instructors typically take a transactional (versus interactional) approach toward teaching (Wang & Farmer, 2008), and are often viewed as mentors and role models both inside and outside of the classroom (Goodboy et al., 2010). Additional terms that have been used to describe Chinese educational practices and values include “integration, human-heartedness, moderation, and Confucian work dynamism” (Warden, Chen, & Caskey, 2005, p. 225).

Turkish classrooms have been referred to as transactional, cooperative, and evolving (Girgin & Stevens, 2005). Over the last several decades, the Turkish educational system has been strongly influenced by a traditional philosophy toward education (Aksu, Demir, Daloglu, Yildirim, & Kiraz, 2010). The primary goal of this philosophy has been to provide essential skills and knowledge through a transactional approach to teaching (Güncer, 1998). However, in 2005, the country began undergoing revisions to its core curricula, including at the primary, secondary, and collegiate levels; these revisions were conducted in an attempt to adopt constructivism into the country’s basic educational philosophy (Asku et al., 2010). Since this time, a growing effort by Turkish scholars and educators has centered



on developing educational practices that incorporate in-class participation and active learning (Girgin & Stevens, 2005).

To date, there are no known studies examining the differences in teacher confirmation behaviors between these three cultures, or across other cultures outside of the United States. The closest in comparison is a study conducted by Hsu (2012), who compared nonnative speaking English instructors to native speaking English instructors to see if they varied in their use of confirmation behaviors at an American university. She found that nonnative English-speaking teachers used confirmation behaviors in a similar fashion to their native English-speaking counterparts. However, the relationship between confirmation behaviors and student outcomes were significantly different (i.e., less effective) for nonnative speaking instructors than for native speaking instructors (Hsu, 2012).

The use of confirmation behaviors in the college classroom may reflect an American teaching practice that is valued more in the United States than other countries because a growing number of American college students demand individualized attention and personalized requests from their instructors (Chowning & Campbell, 2009; Kopp, Zinn, Finney & Jurich, 2011). Confirmation may be expected in American classrooms because by recognizing and valuing American students (Ellis, 2000), instructors are meeting and satisfying their individual academic needs. This idea is reflective of the overall influence of individualism on the American education system. Furthermore, such a relationship would be similar to the findings from cross-cultural investigations on immediacy (e.g., McCroskey et al., 1995, 1996; Myers et al., 1998), which have demonstrated that immediacy is an effective teaching behavior across cultures, but most strongly relates to learning in American classrooms. However, because no cross-cultural studies exist regarding teacher confirmation and learning outcomes, these claims are merely speculative. Thus, to address the generalizability of the confirmation-learning relationship across cultures and to determine the extent to which this relationship may vary in magnitude, the following hypothesis and research question were offered:

H: Teacher confirmation will be related positively to students' affective learning and motivation across Turkish, Chinese, and American college classrooms.

RQ: To what extent do the relationships between teacher confirmation and student learning outcomes (i.e., affective learning, student motivation) vary in magnitude between Turkish, Chinese, and American classrooms?

## **Method**

Participants completed anonymous surveys at mid-sized universities in Turkey, mainland China, and the United States. The measures used in China were translated into Mandarin Chinese, and no problems were observed during the translation or back translation process. The measures used in Turkey were translated into Turkish and back translated, also without any complications. Participants were solicited at the end of the semester and were asked to report on

the instructor they had immediately prior to their current class (Plax, Kearney, McCroskey, & Richmond, 1986). For this study, participants completed the Teacher Confirmation Scale (Ellis, 2000), Affective Learning Scale (McCroskey et al., 1985), and the Student Motivation Scale (Richmond, 1990).

### Participants

Participants for the current study included 645 undergraduate students from universities in Turkey ( $n = 199$ ; 106 males, 87 females, 6 failed to identify sex), China ( $n = 180$ ; 46 males, 103 females, 31 failed to identify sex), and the United States ( $n = 265$ ; 93 males, 166 females, 6 failed to identify sex). Turkish students ranged in age from 20 to 37 years ( $M = 23.41$ ,  $SD = 2.32$ ), Chinese students ranged in age from 18 to 25 years ( $M = 19.27$ ,  $SD = .96$ ), and American students ranged in age from 18 to 25 years ( $M = 19.62$ ,  $SD = 1.91$ ). Turkish students reported on 133 male instructors and 60 female instructors (6 failed to identify), Chinese students reported on 68 male instructors and 101 female instructors (11 failed to identify), and American students reported on 93 male instructors and 166 female instructors (6 failed to identify).

### Instrumentation

The *Teacher Confirmation Scale* (TCS; Ellis, 2000) is a 16-item measure designed to assess student perceptions of their instructors confirming behaviors in the classroom across three dimensions: responding to questions, demonstrating interest, and teaching style. Responses are solicited using a 5-point Likert-scale ranging from (0) *strongly disagree* to (4) *strongly agree*. Previous reliability coefficients for the three subscales have ranged from .81 to .87 (Ellis, 2004, Schrodtt et al., 2006; Turman & Schrodtt, 2006). The current study produced Cronbach alphas of .84 (responding to questions), .78 (demonstrating interest), and .81 (teaching style) across the three cultures. Means, standard deviations and reliability coefficients for each culture can be found in Table 1.

The *Affective Learning Scale* (McCroskey et al., 1985) is a 12-item measure that asks participants to report on their level of affect toward the course content, course instructor, and the behaviors recommended in a specific course. Responses are solicited using three 7-point bipolar adjective scales that can be assessed separately or collapsed as a summed scale. Previous reliability coefficients for the summed scale have ranged from .94 to .96 (Ellis, 2000, 2004; Goodboy & Myers, 2008). The current study produced a Cronbach alpha of .95 ( $M = 61.69$ ,  $SD = 16.81$ ) for the summed scale across the three cultures.

The five-item *Student Motivation Scale* (Richmond, 1990) asks participants to report on their levels of state motivation toward a specific class and instructor. Responses are solicited via a 7-point bipolar adjective scale (e.g., motivated-unmotivated). Previous reliability coefficients for this scale have ranged from .89

**Table 1.** Means, Standard Deviations, Reliability Coefficients, and Correlations by Culture.

Culture	Variable	<i>M</i>	<i>SD</i>	$\alpha$	1	2	3	4	5
<i>Pan-Cultural</i>	1. Responding Q's	15.48	3.93	.84	–				
	2. Interest	17.77	4.78	.78	.74 <sup>^</sup>	–			
	3. Teaching Style	14.06	4.57	.81	.66 <sup>^</sup>	.72 <sup>^</sup>	–		
	4. Affective Learning	61.69	16.81	.95	.43 <sup>^</sup>	.43 <sup>^</sup>	.40 <sup>^</sup>	–	
	5. Motivation	23.57	7.60	.89	.35 <sup>^</sup>	.39 <sup>^</sup>	.41 <sup>^</sup>	.73 <sup>^</sup>	–
<i>Turkey</i>	1. Responding Q's	15.11	4.02	.84	–				
	2. Interest	18.01	5.26	.70	.68 <sup>^</sup>	–			
	3. Teaching Style	14.17	4.50	.85	.65 <sup>^</sup>	.66 <sup>^</sup>	–		
	4. Affective Learning	58.21	17.20	.94	.19 <sup>**</sup>	.20 <sup>**</sup>	.15	–	
	5. Motivation	23.58	6.61	.81	.09	.14	.19 <sup>**</sup>	.72 <sup>^</sup>	–
<i>China</i>	1. Responding Q's	14.37	3.33	.76	–				
	2. Interest	16.61	3.98	.77	.69 <sup>^</sup>	–			
	3. Teaching Style	13.80	3.99	.70	.60 <sup>^</sup>	.68 <sup>^</sup>	–		
	4. Affective Learning	63.02	14.62	.94	.40 <sup>^</sup>	.45 <sup>^</sup>	.41 <sup>^</sup>	–	
	5. Motivation	23.51	7.20	.90	.35 <sup>^</sup>	.42 <sup>^</sup>	.39 <sup>^</sup>	.73 <sup>^</sup>	–
<i>United States</i>	1. Responding Q's	16.52	4.01	.88	–				
	2. Interest	18.38	4.80	.86	.80 <sup>^</sup>	–			
	3. Teaching Style	14.13	4.98	.86	.72 <sup>^</sup>	.80 <sup>^</sup>	–		
	4. Affective Learning	63.20	17.63	.96	.61 <sup>^</sup>	.61 <sup>^</sup>	.57 <sup>^</sup>	–	
	5. Motivation	23.63	8.50	.92	.51 <sup>^</sup>	.55 <sup>^</sup>	.53 <sup>^</sup>	.76 <sup>^</sup>	–

Note. \*\* $p < .01$ . <sup>^</sup> $p < .001$ .

to .93 (Goodboy & Myers, 2008; Myers & Zhong, 2004; Richmond, 1990). The current study produced a Cronbach alpha of .89 ( $M = 23.57$ ,  $SD = 7.60$ ).

### Data Analysis

Before assessing the hypothesis and research question confirmatory factor analyses (CFA) were conducted to examine the factor structure of the teacher confirmation scale for all three cultures. The CFAs were conducted with confirmation being predicted by each of its three hypothesized components and their respective measurement items. After allowing two theoretically appropriate correlations (responding to questions 1 and 2 that share the theme of listening to students' inquiries and demonstrating interest), our results demonstrated that the data fit the model relatively well for the American sample ( $\chi^2 = 296.37$ ,  $df = 99$ ,  $p < .01$ ,  $RMSEA = .09$ ,  $CFI = .98$ ,  $SRMR = .05$ ). Moreover, each of the measurement items loaded significantly ( $p < .01$ ) on their respective factors with loadings ranging from .63 - .83. Our results also showed that the data for the Chinese sample fit the model relatively well ( $\chi^2 = 249.98$ ,  $df = 99$ ,  $p < .01$ ,  $RMSEA = .09$ ,  $CFI = .95$ ,  $SRMR = .07$ ). The measurement items for the Chinese sample also loaded significantly ( $p < .01$ ) on their respective factors ranging from .52 to .76. Finally, the data fit the same

model relatively well for the Turkish sample ( $\chi^2=220.57$ ,  $df = 99$ ,  $p < .01$ ,  $RMSEA = .08$ ,  $CFI = .98$ ,  $SRMR = .05$ ) with measurement items loading significantly ( $p < .01$ ) on their respective factors ranging from .51 to .80. Thus, it appeared that the underlying factor structure behind teacher confirmation effectively transcended the three cultures.

To address the hypothesis and research question in this study, several stages of analyses were followed. First, the data were split based on culture so that each country could be analyzed separately. Second, descriptive statistics and a series of Pearson correlations were calculated to determine the initial relationships between the variables involved. Third, a series of Fisher's  $z$  transformation analyses (Fisher, 1921) were calculated by the authors to determine if significant differences existed between the correlation coefficients found in each country (Cohen, Cohen, West, & Aiken, 2003). Finally, due to the relatively high number of correlations and Fisher  $z$  transformation analyses conducted, we selected  $p < .01$  as our significance level; this criterion was designed to address the probability of Type I error without become too stringent and inducing Type II error (Smith, Levine, Lachlan, & Fediuk, 2002).

## Results

Correlation matrices featuring the relationships between measured variables for each culture are reported in Table 1. Overall, teacher confirmation (i.e., responding to questions, demonstrating interest, teaching style) was correlated positively with students' affective learning and motivation across the three cultures, which is consistent with the hypothesis of this study as well as previous research (Ellis, 2000, 2004; Goodboy & Myers, 2008). However, these effects were significantly weaker in the Turkish sample (and for some dimensions even non-significant), creating greater interest in the research question. Furthermore, it deserves to be noted that the mean scores for affective learning and student motivation were similar across all three cultures.

Our research question sought to determine if the relationship between teacher confirmation and student learning outcomes differed in magnitude based upon culture. Examination of the Fisher  $z$ -values (see Table 2) revealed that the magnitude of the correlations between confirmation behaviors and learning outcomes (i.e., affective learning, motivation) were significantly different based upon culture, with stronger effects found in American and Chinese classrooms, and weaker effects found in Turkish classrooms.

The largest difference in relationship magnitude was found between the United States and Turkey, with  $z$ -values ranging from 4.12 to 5.43 ( $p < .001$ ) for all three confirmation behaviors and the two learning outcomes. Teacher confirmation also had significantly stronger effects on learning outcomes in China than it did in Turkey (i.e.,  $z$ -values ranging from 2.59 to 2.89), with significant differences again occurring for many of the three dimensions of confirmation and the two learning outcomes (see Table 2). The United States and China also demonstrated one

**Table 2.** Fisher's z-values Representing Differences in the Magnitude of Correlations across Cultures.

Cultural Comparison	Variables	Affective Learning			Motivation		
		$r_a$	$r_b$	$z$ -value	$r_a$	$r_b$	$z$ -value
<i>United States<sub>a</sub>/China<sub>b</sub></i>	1. Responding Q's	.62	.40	3.06**	.51	.35	2.02
	2. Interest	.61	.45	2.28	.55	.42	1.74
	3. Teaching Style	.57	.41	2.15	.53	.39	1.82
<i>United States<sub>a</sub>/Turkey<sub>b</sub></i>	1. Responding Q's	.62	.19	5.43 <sup>^</sup>	.51	.09	4.88 <sup>^</sup>
	2. Interest	.61	.20	5.16 <sup>^</sup>	.55	.14	4.93 <sup>^</sup>
	3. Teaching Style	.57	.15	5.08 <sup>^</sup>	.53	.19	4.12 <sup>^</sup>
<i>China<sub>a</sub>/Turkey<sub>b</sub></i>	1. Responding Q's	.40	.19	2.15	.35	.09	2.59**
	2. Interest	.45	.20	2.62**	.42	.14	2.89**
	3. Teaching Style	.41	.15	2.65**	.39	.19	2.07

Note. \*\*  $p < .01$ . <sup>^</sup> $p < .001$ . All z-values are two-tailed.

significant difference, as responding to questions was correlated significantly higher with affective learning (i.e.,  $z$ -value = 3.06) in American classrooms than Chinese classrooms. Otherwise, the correlation coefficients found between confirmation and learning outcomes in American and Chinese classrooms were not significantly different from each other.

## Discussion

The purpose of this study was to examine the generalizability of the relationship between teacher confirmation and student learning outcomes across three cultures (i.e., Turkey, China, United States). Two notable findings emerged from the data. First, teacher confirmation was generally related positively to students' affective learning and motivation across all three cultures. Second, the magnitude of the confirmation-learning relationship was significantly stronger in the United States and China than it was in Turkey. Collectively, these results provide preliminary support for teacher confirmation as a universally effective teaching behavior, while also demonstrating that its strongest effects on learning appear to be found within American classrooms.

Similar to the conclusions from numerous studies that have examined instructor immediacy across cultures (e.g., Johnson & Miller, 2002; Neulip, 1997), teacher confirmation had positive effects on nearly all student learning outcomes across cultures, with the exception of some Turkish learning outcomes. It appears, then, by responding to students' questions, demonstrating interest in students' learning and growth, and employing an interactive teaching style, instructors across various cultures are likely to increase their students' learning outcomes (Ellis, 2000, 2004). Therefore, instructors from these cultures who desire to increase the affective learning and motivation of their students are encouraged to incorporate

confirmation (e.g., acknowledging students' contributions) into their lecture and/or presentation style. Although the effects may range depending upon the culture, students appear to report higher levels of affective learning and motivation when their instructor is confirming in the classroom (Goodboy & Myers, 2008).

Although the positive effects of teacher confirmation were expected and revealed across the three cultures, it appears that instructors' confirmation behaviors are more beneficial for American and Chinese students than they are for Turkish students. Additionally, to a lesser extent, confirmation behaviors (i.e., responding to questions) have a stronger relationship on students' affective learning in the United States than China. Collectively, these results are again similar to findings pertaining to instructor immediacy across cultures (cf. McCroskey et al., 1995, 1996; Myers et al., 1998). Neulip (1995) suggested that in American classrooms, teacher relational behaviors (e.g., immediacy) have become normative at the collegiate level, to the point where they are expected by American students. Building his arguments from Burgoon's (1978) expectancy theory, Neulip (1995) suggested that culturally driven student expectations of immediate and caring instructors influence the relationship between relational teaching behaviors and student learning outcomes in America. It has also been noted, that unlike America, where the burden of learning often resides on the instructor (Neulip, 1997), in many high-context cultures like Turkey, students are expected to shoulder the majority of the responsibility (Hall, 1976; Hofstede, 1980). Thus, as several scholars have pointed out, instructors' relational behaviors may not be as important (i.e., with regards to learning outcomes) in high-context cultures as they are in low-context cultures (McCroskey et al., 1995; Neulip, 1997).

Furthermore, the differences found in this study may also be informed by examining the nature of the teacher-student relationship across the three countries involved. Confirmation behaviors, as they have traditionally been examined in the instructional literature (Ellis, 2000, 2004), are rooted within the interpersonal context (Laing, 1961; Sieburg, 1973). Similarly, several scholars have insisted that in the United States, the teacher-student relationship itself, is an interpersonal relationship (Frymier & Houser, 2000; Nussbaum & Scott, 1980). However, this argument is not necessarily as applicable in other cultures (Myers et al., 1998). The student-teacher relationship in both China and Turkey has been described as having a higher-power difference that coincides with the transactional approach to teaching favored in the two countries (Abudaker, 2008; Girgin & Stevens, 2005). Thus, in its current operationalization as an interpersonally rooted teaching behavior, it appears that one reason why teacher confirmation has the strongest influence on learning in the United States is because the relational component of the teacher-student dyad is more closely linked to learning outcomes than in other countries (Mottet, Frymier, & Beebe, 2006).

It also deserves to be noted that while the relationship found between confirmation behaviors and student learning outcomes varied in terms of magnitude across the three cultures, the average reported levels of affective learning and motivation were extremely similar across all three countries. Thus, we contend that while

confirmation appears to play a stronger role in American education and similarly in Chinese education, it does not inherently increase the quality of American and Chinese education over Turkish education. In fact, on average, Turkish Chinese, and American students reported very similar levels of motivation and affective learning, suggesting that they like their instructors just as much and are just as motivated for their classes. Ultimately, our data suggest that confirmation is generally perceived as a valuable teaching tool across these three cultures, but other teaching tools (e.g., clarity; Zhang & Huang, 2008) may be valued more in cultures such as Turkey where the relationship between confirmation and learning outcomes is considerably smaller. Future research should continue exploring this notion as communication scholars continue to study effective teaching practices across cultures.

Further attention should also be devoted to the difference found in the confirming behavior of responding to questions and affective learning, which was significantly stronger in the United States than both China and Turkey. One explanation could be because American students' self-esteem is promoted at an early age in their education and is sometimes valued over actual learning (Sykes, 1995), and given the importance of individualism in the American classroom, it is unsurprising that American college students seemingly need to be confirmed more than students from other countries to report higher levels of affective learning. As Twenge and Campbell (2009) pointed out, "Americans are being persuaded that becoming more vain, materialistic, and self-centered is actually a good thing," and that American educational "practices often produce self-centered, narcissistic young people" (Twenge & Campbell, 2009, p. 38). Both Turkey and China are generally perceived as collectivistic cultures that value group goals over individual goals. Subsequently, collectivistic students may not need their instructors to be confirming as much to enjoy the content and instructor of the class.

#### *Limitations and Future Research*

This study was not without limitations. First, although careful consideration was taken in the translation process, it is possible that students in the Chinese and Turkish samples misinterpreted or perceived unintended meanings through the translation of the utilized scales. Zhang and Oetzel (2006) demonstrated the utility of operationalizing scales that are specific to an individual culture so that items are reflective of participants' everyday experiences. As previously mentioned, the current operationalization of confirmation appears to be strongly grounded within the American classroom; thus, future research could explore variations of confirmation scales that are culturally specific to other countries. However, for the purpose of comparison, it is important to operationalize variables in a consistent fashion (Goodboy et al., 2010).

Second, this study was largely atheoretical. This limitation was accepted by the researchers for two reasons: (1) the authors used previous literature to justify the importance of the topic and the purpose of the study, but sought to determine if

any differences existed among the cultures empirically; and (2) the selection of a theoretical framework, unless designed through pancultural practices, would have inherently biased the direction of the manuscript. Ngwainmbi (2004) argued that due to many extensive and ingrained cultural differences, it is likely that “Western communication theories are not appropriate in analyzing learning situations in Asian cultures” (p. 64). Thus, the authors elected to use relevant preexisting research to inform the rationale of the current study. However, future research should continue to test learning models and theories across cultures to determine their applicability in various college classrooms. From this study, it is possible that cultural values of power difference and individualistic/collectivistic orientations influence the appropriateness of such models and their applicability in multiple cultures. Thus, future research should consider integrating these concepts into cross-cultural model examinations.

## Conclusion

Communication scholars have suggested that conducting multicultural studies which evaluate the effectiveness of teaching behaviors across cultures may be the only way to “develop theory which will account for systematic differences which may be introduced when teachers and/or students are not from the same culture or are from a culture other than the dominant U.S. culture” (McCroskey et al., 1996, p. 298). Instructional communication scholars continue to try and answer this challenge by exploring the similarities and differences of teaching practices in various cultures. This study contributed to this line of research by demonstrating that the effects of confirmation are noticeably stronger in American and Chinese classrooms than they are in Turkish classes. Confirmation remains an effective teaching behavior that contributes to overall positive student outcomes (Ellis, 2000, 2004); however, this study highlights the extent to which the effects of instructor confirmation differ across cultures and provides further justification for why effective teaching behaviors studied exclusively in the United States should continue to be examined in additional countries.

## References

- Abudaker, A. (2008). The influence of Chinese core cultural values on the communication behavior of overseas Chinese students learning English. *Annual Review of Education, Communication & Language Sciences*, 5, 105–135.
- Aksu, M., Demir, C. E., Daloglu, A., Yildirim, S., & Kiraz, E. (2010). Who are the future teachers in Turkey? characteristics of entering student teachers. *International Journal of Educational Development*, 30, 91–101. doi:10.1016/j.ijedudev.2009.06.005
- Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. In D. Nimmo (Ed.), *Communication yearbook 3* (pp. 543–559). New Brunswick, NJ: Transaction Books.



- Biggs, J., & Tang, C. (1996). Hong Kong students cope with assessment. In D. Watkins, & J. Biggs (Eds.), *The Chinese learner: cultural, psychological & contextual influences* (pp. 159–182). Victoria, Australia: Australian Council of Educational Research.
- Brophy, J. (1987). Synthesis of research on strategies for motivating students to learn. *Educational Leadership*, 45, 40–48.
- Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.
- Buber, M. (1957). Distance and relation. *Psychiatry*, 20, 97–104.
- Burgoon, J. K. (1978). A communication model of space violations: explication and an initial test. *Human Communication Research*, 4, 129–142. doi:[10.1111/j.1468-2958.1978.tb00603.x](https://doi.org/10.1111/j.1468-2958.1978.tb00603.x)
- Campbell, L. C., Eichhorn, K., Basch, C., & Wolf, R. (2009). Exploring the relationship between teacher confirmation, gender, and student effort in the college classroom. *Human Communication*, 12, 447–464.
- Cayanus, J. L., & Martin, M. M. (2008). Teacher self-disclosure: amount, relevance, and negativity. *Communication Quarterly*, 56, 325–341. doi:[10.1080/01463370802241492](https://doi.org/10.1080/01463370802241492)
- Chesebro, J. L., & McCroskey, J. C. (2001). The relationship of teacher clarity and immediacy with student state receiver apprehension, affect, and cognitive learning. *Communication Education*, 50, 59–68. doi:[10.1080/03634520109379232](https://doi.org/10.1080/03634520109379232)
- Chory-Assad, R. M. (2002). Classroom justice: perceptions of fairness as a predictor of student motivation, learning, and aggression. *Communication Quarterly*, 50, 58–77. doi:[10.1080/01463370209385646](https://doi.org/10.1080/01463370209385646)
- Chowning, K., & Campbell, N. J. (2009). Development and validation of a measure of academic entitlement: Individual differences in students' externalized responsibility and entitled expectations. *Journal of Educational Psychology*, 101, 982–997. doi:[10.1037/a0016351](https://doi.org/10.1037/a0016351)
- Christensen, L. J., & Menzel, K. E. (1998). The linear relationship between student reports of teacher immediacy behaviors and perceptions of state motivation, and of cognitive, affective, and behavioral learning. *Communication Education*, 47, 82–90. doi:[10.1080/03634529809379112](https://doi.org/10.1080/03634529809379112)
- Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, 39, 323–340. doi:[10.1080/03634529009378813](https://doi.org/10.1080/03634529009378813)
- Christophel, D. M., & Gorham, J. (1995). A test-retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college classes. *Communication Education*, 44, 292–306. doi:[10.1080/03634529509379020](https://doi.org/10.1080/03634529509379020)
- Cissna, K. N., & Sieburg, E. (1981). Patterns of interactional confirmation and disconfirmation. In C. Wilder-Mott, & J. H. Weakland (Eds.), *Rigor and imagination: Essays from the legacy of Gregory Bateson* (pp. 253–282). New York: Praeger.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlational analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Comadena, M. E., Hunt, S. K., & Simonds, C. J. (2007). The effects of teacher clarity, nonverbal immediacy, and caring on student motivation, affective and cognitive learning. *Communication Research Reports*, 24, 241–248. doi:[10.1080/08824090701446617](https://doi.org/10.1080/08824090701446617)
- Ellis, K. (2000). Perceived teacher confirmation: the development and validation of an instrument and two studies of the relationship to cognitive and affective learning. *Human Communication Research*, 26, 264–291. doi:[10.1111/j.1468-2958.2000.tb00758.x](https://doi.org/10.1111/j.1468-2958.2000.tb00758.x)
- Ellis, K. (2004). The impact of perceived teacher confirmation on receiver apprehension, motivation, and learning. *Communication Education*, 53, 1–20. doi:[10.1080/0363452032000135742](https://doi.org/10.1080/0363452032000135742)
- Fisher, R. A. (1921). On the 'probable error' of a coefficient of correlation deduced from a small sample. *Metron*, 1, 3–32.
- Frisby, B. N., & Martin, M. M. (2010). Instructor-student and student-student rapport in the classroom. *Communication Education*, 59, 146–164. doi:[10.1080/03634520903564362](https://doi.org/10.1080/03634520903564362)

- Frymier, A. B. (1993). The impact of teacher immediacy on students' motivation: is it the same for all students? *Communication Quarterly*, 41, 454–464. doi:[10.1080/01463379309369905](https://doi.org/10.1080/01463379309369905)
- Frymier, A. B., & Houser, M. L. (2000). The teacher-student relationship as an interpersonal relationship. *Communication Education*, 49, 207–219. doi:[10.1080/03634520009379209](https://doi.org/10.1080/03634520009379209)
- Girgin, K. Z., & Stevens, D. D. (2005). Bridging in-class participation with innovative instruction: Use and implications in a Turkish university classroom. *Innovations in Education and Teaching International*, 42, 93–106. doi:[10.1080/14703290500049059](https://doi.org/10.1080/14703290500049059)
- Goodboy, A. K., Bolkan, S., Beebe, S. A., & Shultz, K. (2010). Cultural differences between United States and Chinese students' use of behavioral alteration techniques and affinity-seeking strategies with instructors. *Journal of Intercultural Communication Research*, 39, 1–12. doi:[10.1080/17475759.2010.520834](https://doi.org/10.1080/17475759.2010.520834)
- Goodboy, A. K., Bolkan, S., Myers, S. A., & Zhao, X. (2011). Student use of relational and influence messages in response to perceived instructor power use in American and Chinese college classrooms. *Communication Education*, 60, 191–209. doi:[10.1080/03634523.2010.502970](https://doi.org/10.1080/03634523.2010.502970)
- Goodboy, A. K., & Myers, S. A. (2008). The effect of teacher confirmation on student communication and learning outcomes. *Communication Education*, 57, 153–179. doi:[10.1080/03634520701787777](https://doi.org/10.1080/03634520701787777)
- Goodboy, A. K., Myers, S. A., & Bolkan, S. (2012). Personalized education and student motives for communicating with instructors: An examination of Chinese and American classrooms. *China Media Research*, 8, 94–100.
- Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. *Communication Education*, 37, 40–53. doi:[10.1080/03634528809378702](https://doi.org/10.1080/03634528809378702)
- Gorham, J., & Christophel, D. M. (1992). Students' perceptions of teacher behaviors as motivating and demotivating factors in college classes. *Communication Quarterly*, 40, 239–252. doi:[10.1080/01463379209369839](https://doi.org/10.1080/01463379209369839)
- Gorham, J., & Millette, D. M. (1997). A comparative analysis of teacher and student perceptions of sources of motivation and demotivation in college classes. *Communication Education*, 46, 245–261. doi:[10.1080/01463379209369839](https://doi.org/10.1080/01463379209369839)
- Güncer, B. (1998). *Restructuring of teacher education programs in faculties of education*. Ankara: Council of Higher Education.
- Hall, E. T. (1976). *Beyond culture*. New York: Anchor Books.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. London: Sage.
- Horan, S. M., Houser, M. L., Goodboy, A. K., & Frymier, A. (2011). Students' early impressions of instructors: understanding the role of relational skills and messages. *Communication Research Reports*, 28, 74–85. doi:[10.1080/08824096.2011.541362](https://doi.org/10.1080/08824096.2011.541362)
- Hsu, C. F. (2012). The influence of vocal qualities and confirmation of nonnative English-speaking teachers on student receiver apprehension, affective learning, and cognitive learning. *Communication Education*, 61, 4–16. doi:[10.2080/03634523.2011.615410](https://doi.org/10.2080/03634523.2011.615410)
- Huang, J., & Brown, K. (2009). Cultural factors affecting Chinese ESL students' academic learning. *Education*, 129, 643–653.
- Johnson, D. I. (2009). Connected classroom climate: a validity study. *Communication Research Reports*, 26, 146–157. doi:[10.1080/08824090902861622](https://doi.org/10.1080/08824090902861622)
- Johnson, S., & Miller, A. (2002). A cross-cultural study of immediacy, credibility, and learning in the US and Kenya. *Communication Education*, 51, 280–292. doi:[10.1080/03634520216514](https://doi.org/10.1080/03634520216514)
- Kearney, P. (1994). Affective learning. In R. B. Rubin, P. Palmgreen, & H. E. Sypher (Eds.), *Communication research measures: a sourcebook* (pp. 81–85). New York: The Guilford Press.
- Kopp, J. P., Zinn, T. E., Finney, S. J., & Jurich, D. P. (2011). The development and evaluation of the academic entitlement questionnaire. *Measurement and Evaluation in Counseling and Development*, 44, 105–129. doi:[10.1177/0748175611400292](https://doi.org/10.1177/0748175611400292)

- Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1964). *Taxonomy of education objectives: the classification of educational goals. handbook 2: affective domain*. New York: Longman.
- Laing, R. D. (1961). *Self and others*. New York: Pantheon
- Martin, M. M., Myers, S. A., & Mottet, T. P. (1999). Students' motives for communicating with their instructors. *Communication Education*, 48, 155–164. doi:[10.1080/03634529909379163](https://doi.org/10.1080/03634529909379163)
- McCroskey, J. C. (1994). Assessment of affect toward communication and affect toward instruction in communication. In S. Morreale, & M. Brooks (Eds.), *Assessing college student competence in speech communication* (pp. 56–71). Annandale, VA: Speech Communication Association.
- McCroskey, J. C., & McCroskey, L. L. (2006). Instructional communication: the historical perspective. In T. P. Mottet, V. P. Richmond, & J. C. McCroskey (Eds.), *Handbook of instructional communication: rhetorical and relational perspectives* (pp. 33–47). Boston, MA: Allyn & Bacon.
- McCroskey, J. C., Richmond, V. P., Plax, T. G., & Kearney, P. (1985). Power in the classroom V: behavior alteration techniques, communication behaviors and instructional outcomes. *Communication Education*, 34, 214–226. doi:[10.1080/03634528509378609](https://doi.org/10.1080/03634528509378609)
- McCroskey, J. C., Richmond, V. P., Sallinen, A., Fayer, J. M., & Barraclough, R. A. (1995). A cross-cultural and multi-behavioral analysis of the relationship between nonverbal immediacy and teacher evaluation. *Communication Education*, 44, 281–291. doi:[10.1080/03634529509379019](https://doi.org/10.1080/03634529509379019)
- McCroskey, J. C., Sallinen, A., Fayer, J. M., Richmond, V. P., & Barraclough, R. A. (1996). Nonverbal immediacy and cognitive learning: a cross-cultural investigation. *Communication Education*, 45, 200–211. doi:[10.1080/03634529609379049](https://doi.org/10.1080/03634529609379049)
- Mottet, T. P., Frymier, A. B., & Beebe, S. A. (2006). Theorizing about instructional communication. In T. P. Mottet, V. P. Richmond, & J. C. McCroskey (Eds.), *Handbook of instructional communication: rhetorical and relational perspectives* (pp. 255–282). Boston, MA: Allyn & Bacon.
- Myers, S. A. (2002). Perceived aggressive instructor communication and student state motivation, learning, and satisfaction. *Communication Reports*, 15, 113–121.
- Myers, S. A., & Zhong, M. (2004). Perceived Chinese instructor use of affinity-seeking strategies and Chinese college student motivation. *Journal of Intercultural Communication Research*, 33, 119–130.
- Myers, S. A., Zhong, M., & Guan, S. (1998). Instructor immediacy in the Chinese college classroom. *Communication Studies*, 49, 240–254. doi:[10.1080/10510979809368534](https://doi.org/10.1080/10510979809368534)
- Neuliep, J. W. (1995). A comparison of teacher immediacy in African-American and Euro-American college classrooms. *Communication Education*, 44, 267–277. doi:[10.1080/03634529509379016](https://doi.org/10.1080/03634529509379016)
- Neuliep, J. W. (1997). A cross-cultural comparison of teacher immediacy in American and Japanese college classrooms. *Communication Research*, 24, 431–451. doi:[10.1177/009365097024004006](https://doi.org/10.1177/009365097024004006)
- Ngwainmbi, E. K. (2004). Communication in the Chinese Classroom. *Education*, 125, 63–76.
- Nussbaum, J. F., & Scott, M. D. (1980). Student learning as a relational outcome of teacher-student interaction. *Communication Yearbook*, 4, 553–564.
- Plax, T. G., Kearney, P., McCroskey, J. C., & Richmond, V. P. (1986). Power in the classroom VI: verbal control strategies, nonverbal immediacy, and affective learning. *Communication Education*, 35, 43–55. doi:[10.1080/03634528609388318](https://doi.org/10.1080/03634528609388318)
- Richmond, V. P. (1990). Communication in the classroom: power and motivation. *Communication Education*, 39, 181–195. doi:[10.1080/03634529009378801](https://doi.org/10.1080/03634529009378801)
- Roach, K. D., & Byrne, P. R. (2001). A cross-cultural comparison of instructor communication in American and German classrooms. *Communication Education*, 50, 1–14. doi:[10.1080/03634520109379228](https://doi.org/10.1080/03634520109379228)

- Schrodt, P., Turman, P. D., & Soliz, J. (2006). Perceived understanding as a mediator of perceived teacher confirmation and students' ratings of instruction. *Communication Education*, 55, 370–388. doi:10.1080/03634520600879196
- Schrodt, P., Witt, P. L., Turman, P. D., Myers, S. A., Barton, M. H., & Jernberg, K. A. (2009). Instructor credibility as a mediator of instructors' prosocial communication behaviors and students' learning outcomes. *Communication Education*, 58, 350–371. doi:10.1080/03634520902926851
- Scott, M. D., & Wheelless, L. R. (1975). Communication apprehension, student attitudes, and levels of satisfaction. *Western Journal of Speech Communication*, 41, 188–198. doi:10.1080/10570317709389611
- Sidlinger, R. J., & Booth-Butterfield, M. (2010). Co-constructing student involvement: an examination of teacher confirmation and student-to-student connectedness in the college classroom. *Communication Education*, 59, 165–184. doi:10.1080/03634520903390867
- Sieburg, E. (1973). *Interpersonal confirmation: conceptualization and measurement*. Montreal, Canada: Paper presented at the International Communication Convention.
- Smith, R. A., Levine, T. R., Lachlan, K. A., & Fediuk, T. A. (2002). The high cost of complexity in experimental design and data analysis: Type I and type II error rates in multiway ANOVA. *Human Communication Research*, 28, 515–530. doi:10.1111/j.1468-2958.2002.tb00821.x
- Smithee, M., Greeblatt, S. L., & Eland, A. (2004). *U.S. culture series: U.S. classroom culture*. NA-FSA: Association of International Education Publications. Retrieved from [http://www.nafsa.org/uploadedFiles/NAFSA\\_Home/Resource\\_Library\\_Assets/Publications\\_Library/u.s.pdf?n=1388](http://www.nafsa.org/uploadedFiles/NAFSA_Home/Resource_Library_Assets/Publications_Library/u.s.pdf?n=1388)
- Sykes, C. J. (1995). *Dumbing down our kids: Why America's children feel good about themselves but can't read, write, or add*. New York: St. Martin's Press.
- Turman, P. D., & Schrodt, P. (2006). Student perceptions of teacher power as a function of perceived teacher confirmation. *Communication Education*, 55, 265–279. doi:10.1080/03634520600702570
- Twenge, J. M., & Campbell, W. K. (2009). *Living in the age of entitlement: the narcissism epidemic*. New York: Simon and Schuster.
- Waldeck, J. H., Plax, T. G., & Kearney, P. (2010). Philosophical and methodological foundations of instructional communication. In D. L. Fassett, & J. T. Warren (Eds.), *The sage handbook of communication and instruction* (pp. 161–179). Thousand Oaks, CA: SAGE.
- Wang, V., & Farmer, L. (2008). Adult teaching methods in China and Bloom's taxonomy. *International Journal for the Scholarship of Teaching and Learning*, 2, 1–15.
- Wanzer, M., & Frymier, A. (1999). The relationship between student perceptions of instructor humor and student's reports of learning. *Communication Education*, 48, 48–62. doi:10.1080/03634529909379152
- Warden, C. A., Chen, J. F., & Caskey, D. (2005). Cultural values and communication online: Chinese and Southeast Asian Students in a Taiwan international MBA class. *Business Communication Quarterly*, 68, 222–232. doi:10.1177/1080569905276669
- Watzlawick, P., Beavin, J., & Jackson, D. D. (1967). *Pragmatics of human communication: a study of interactional patterns, pathologies, and paradoxes*. New York: Norton.
- Wheelless, L. R. (1975). An investigation of receiver apprehension and social context dimensions of communication apprehension. *Speech Teacher*, 24, 261–268. doi:10.1080/03634527509378169
- Zhang, Q. (2005). Immediacy, humor, power distance, and classroom communication apprehension in Chinese college classrooms. *Communication Quarterly*, 53, 109–124. doi:10.1080/01463370500056150

- Zhang, Q. (2007). Teacher misbehaviors as learning demotivators in college classrooms: a cross-cultural investigation in China, Germany, Japan, and the United States. *Communication Education*, 56, 209–227. doi:[10.1080/03634520601110104](https://doi.org/10.1080/03634520601110104)
- Zhang, Q. (2009). Perceived teacher credibility and student learning: development of a multicultural model. *Western Journal of Communication*, 73, 326–347. doi:[10.1080/10570310903082073](https://doi.org/10.1080/10570310903082073)
- Zhang, Q., & Huang, B. (2008). How does teacher clarity affect student learning? a multi-cultural test for the mediated effect. *Texas Speech Communication Journal*, 33, 10–19.
- Zhang, Q., & Oetzel, J. G. (2006). Constructing and validating a teacher immediacy scale: a Chinese perspective. *Communication Education*, 55, 218–241. doi:[10.1080/03634520600566231](https://doi.org/10.1080/03634520600566231)