# THE WTC SCALE AS A PREDICTOR OF CLASSROOM PARTICIPATION

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The participation of students enrolled in classes in philosophy, mathematics, and geography was observed at various times during a semester. Those with high scores on the Willingness to Communicate (WTC) scale, compared to those with low scores, were found to participate significantly more frequently. The results are interpreted as an indication of validity of the WTC scale and as suggesting the need for additional research relating to trait and situational factors affecting student participation in classroom instruction.

Since its initial development (McCroskey & Richmond, 1985; McCroskey & Baer, 1985), the Willingness to Communicate (WTC) scale has been employed in a number of research studies (McCroskey & McCroskey, 1986 a,b,c,d). These studies provide support for the validity of the scale in the sense that it has been found to correlate with other self-report scales in predictable ways. Since the scale is claimed to measure a predisposition toward actual communication behavior, however, such support does not provide a strong argument for validity of the scale. Unlike scales designed to measure such constructs as self-esteem or communication apprehension, things which are presented as hypothetical constructs which exist only inside the individual, a scale presumed to measure an individual's willingness to communication behavior.

Only one study has been reported which provides data relating scores on the WTC scale to actual behavior (Zakahi & McCroskey, 1986). In that study subjects classified by scores on the scale as either high or low in willingness to communicate were found to behave very differently in terms of agreeing to participate in a research study involving communication and in terms of actually appearing as scheduled for the study. Thus, that study demonstrated the ability of the WTC scale to distinguish between high and low willing subjects in terms of their approach/avoidance behaviors related to communication.

The Zakahi and McCroskey (1986) study, while providing some behavioral support for the validity of the WTC scale, did not actually involve the observation of communication. The present study was designed to take that extra step.

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# RATIONALE AND HYPOTHESES

This study examined student participation in an on-going classroom environment. This particular category of communication behavior was selected for observation because of its comparatively common nature and because of the ease of observing the behavior without the observer having an impact on the behavior itself. Two hypotheses were advanced:

- H1: More students classified as high in willingness to communicate will participate in classroom interaction than will students classified as low in willingness to communicate.
- H<sub>2</sub>: More of the total participation in a classroom will involve students classified as high in willingness to communicate than will involve students classified as low in willingness to communicate.

The first hypothesis involved determining whether a student participated at all in a class. The second involved the total number of times students participated. Thus, although the two types of data are not unrelated, the hypotheses were concerned with different aspects of the participation phenomonon.

#### METHOD

Teachers in three undergraduate classes agreed to ask their students to participate in the study and to assist the researchers in identifying the students to be observed. There was one class in each of three divergent disciplines: philosophy, mathematics (calculus), and geography. The students were asked to complete the WTC scale on the first day of each class. All students agreed to participate. Observations were conducted subsequently on three class days for each class (one observation for the mathematics class was cancelled because a test was rescheduled for the third observation day), one early in the term, one near mid-term, and one near the end of the term. The observer sat near the front of the room to one side where she was able to avoid physically intruding between the instructor and students but could observe each student in the room.

Students who scored one standard deviation above or below the mean for the sample on the WTC were classified as high and low willing-to-communicate, respectively. Other students were not used in the study. The observer simply recorded each time a student (high or low) participated during each classroom observation period. Attendance was not perfect for any one of the observation sessions. Students who were absent were simply disregarded for that session but were included if present in another observation session.

### RESULTS

Table 1 reports the data relating to the first hypothesis. As noted in that table, over half of the high willing-to-communicate subjects participated in each of the class meetings in which they were in attendance. In contrast, less than one fourth of the low willing-to-communicate subjects, on average, participated in class. The proportion of the high-willing who participated, compared to the proportion of low-willing who participated, was significantly greater for each of the three observation sessions (z = 3.12, p < .002; z = 2.56, p < .005; and z = 3.19, p < .001, respectively).

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Number and Proportion of Students Participating in Class by WTC Level

Level	Time 1	Time 2	Time 3
High WTC	8 of 14	10 of 17	5 of 8
	57.1 %	58.8 %	62.5 %
Low WTC	2 of 11	3 of 11	1 of 7
	18.2 %	27.3 %	14.3 %

Table 2 reports the total number of participations and average number of participations per subject for both high- and low-willing groups for each time period. The proportion of participations stemming from high-willing subjects was significantly greater than the proportion stemming from low-willing subjects in the first and third observation periods (z = 2.34, p < .02; z = 5.29, p < .001, respectively) and the difference was in the same direction in the second period but was not significant.

#### Table 2

#### Total and Mean Number of Participations by WTC Level

Level		Time 1	Time 2	Time 3	
High WTC	Т	51	66	43	
	м	3.64	3.88	5.38	
Low WTC	т	16	24	4	
	М	1.45	2.18	.57	

#### DISCUSSION

The results of this study provided support for the predictive validity of the WTC scale. Both of the hypotheses, which were based on the presumption of the validity of the scale, were supported. Fewer of the students who had low scores on the WTC scale participated in class than those who scored high on the scale and more of the total participations in class (after adjusting for unequal sample sizes) came from the students with high scores on the scale than from students with low scores on the scale.

The results of this study, while providing support for the validity of the WTC scale, also suggest that class participation may be in large part a function of an individual student's orientation toward communication rather than a situation-specific response. This is consistent with classroom observational research which has indicated consistent student patterns of participation as well as research on classroom seating preferences and participation. If this pattern of student communication, rather than being a behavior associated with more specific classroom orientations, this may have important implications for classroom teachers and teacher training programs. Additional research is needed to determine the relative contributions of trait communication orientations and specific classroom contexts to student participation.

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