

“Please Don’t Call on Me”: Correlates of Small Group Participation

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This study explored the relationship between self-esteem, communication apprehension, extraversion, and small group participation. Fifty female undergraduate General Psychology students participated in groups of 5 to provide feedback regarding 2 children’s videos. They viewed two 5-min clips and responded to questions regarding the education and entertainment values for preschool-aged children (ages 5–7). The experimenter recorded the number and length of times each person spoke. Following the video, the participants completed a self-esteem scale, a communication apprehension scale, and an extraversion scale. Hierarchical regression determined that self-esteem was not a significant predictor of small group participation; however, communication apprehension was.

IN TODAY’S WORLD, EDUCATION IS ONE OF THE cornerstones for success. Education level helps determine a person’s job type, income level, and status in our society (Tsui, 1998; Witherspoon, Long, & Nickell, 1991). Therefore, success in the classroom may have a long-term impact on individuals. Educators use many methods to evaluate students, including assessing the amount of participation in the classroom. College instructors typically pose questions, permit students to ask questions or offer comments, and structure small group activities to increase classroom participation (Williams, 1971). Classroom participation includes hand-raising, head-nodding, sharing opinions, asking questions, and generating new ideas (Burnett, 1998). Indeed, research indicates classroom participation is directly related to educational success (Jaasma, 1997).

Several personal attribute variables are linked to participation. In particular, self-esteem is positively correlated with higher levels of classroom participation (Burnett, 1998; Morrison & Thomas, 1975). Self-esteem is defined as “the set of evaluative attitudes that a person has about himself or his accomplishments” (Morrison & Thomas, 1975, p. 374).

Research on self-esteem and classroom participation reveals several behavioral differences among

children with varying levels of self-esteem across many age ranges (Burnett, 1998). For example, children with low self-esteem give limited responses in the classroom, whereas children with high self-esteem display strong communication skills and are interactive with others (Burnett, 1998). Students with low self-esteem say less in class and sit further back in the classroom than students with high self-esteem (Morrison & Thomas, 1975). The relation between self-esteem and participation appears to be reciprocal. That is, increased participation may increase self-esteem and increased self-esteem may increase participation. Research also finds that people who have high self-esteem are more confident in social situations than people who have low self-esteem (as reviewed by Baron, 1998). This study evaluated the impact of self-esteem on the level of participation in a new small group situation.

Other variables that may contribute to the level of classroom participation are communication apprehension

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hension (Jaasma, 1997) and introversion and extraversion levels (Williams, 1971). Communication apprehension is "an individual's level of fear or anxiety associated with either real or anticipated communication" (Daly & McCroskey, 1984, p. 13). Excessive communication apprehension is correlated with low self-esteem, poor communication skills, and low education achievement (Jaasma, 1997; Witherspoon et al., 1991). High communication apprehension is associated with negative academic effects on students, such as early dropout rates and lower grade point averages (McCroskey, Booth-Butterfield, & Payne, 1989). In fact, students with high communication apprehension will attempt to avoid as much communication as possible to the extent that they will avoid meeting with peers or teachers to talk about the subject matter (McCroskey & Sheahan, 1978). Beyond the classroom, these students are less likely to become involved with campus activities, and they interact less with peers (McCroskey et al., 1989). They also have few close relationships with faculty and advisors and are overall less satisfied with the college environment (McCroskey & Sheahan, 1978).

Introverted students also have much difficulty participating in the classroom. Often these students go unnoticed by teachers and peers because of their general shyness and passivity in the classroom (Byrnes, 1984). Introversion is characterized by quiet, unsociable, reserved, passive, careful, and thoughtful behavior (Myers, 1995). These characteristics cause students to be almost "invisible" in the classroom (Byrnes, 1984). Those persons who are extraverted can be characterized by their social, outgoing, talkative, active, and impulsive behavior (Myers, 1995). Although some previous research suggests a positive correlation between extraversion and participation in class (Drake & Thiede, 1948), Williams (1971) found that no significant extraversion differences existed between participants and nonparticipants in a classroom situation. These conflicting views indicate that the relationship between classroom participation and extraversion is important to consider (Williams, 1971).

The purpose of this study is to explore the relation of self-esteem, communication apprehension, introversion, and extraversion with small group participation. We expected to find a positive correlation between self-esteem and classroom participation. We expected participation to be negatively correlated with communication apprehension. We expected to find participation positively relates to extraversion. Finally, because self-esteem may be an underlying factor behind the other variables associated with participation, we expected self-esteem to contribute

independently to small group participation (after controlling for the other variables of interest).

Method

Participants

Fifty participants took part in this project. Due to the large amount of evidence that suggests complicated sex effects with regard to classroom interactions between students and faculty (e.g., Allen & Niss, 1990), we utilized only female students as well as a female experimenter. We solicited these students from the General Psychology human participants pool at a mid-sized midwestern public comprehensive university, and they received extra credit for their participation. The students represented a variety of declared majors across the five colleges of study within the university, and we selected for traditionally aged freshmen (mean age = 19.16, $SD = 1.09$). Respondents participated in groups of five. We overenrolled the groups and excused participants familiar with one another to ensure five strangers per group.

Materials

The participants watched two 5-min children's video clips. The first was a Richard Scarry video that depicted a story involving a moral about not "judging a book by its cover." The second was *Blue's Clues*, a show about a man investigating clues to learn about his environment.

Following discussion of the videos, the participants completed measures of self-esteem, communication apprehension, extraversion, and additional measures to help disguise the purpose of the study. We measured self-esteem with Coopersmith's (1967) Self-Esteem Inventory (SEI), a 50-item true-false scale that measures evaluative attitudes across four domains pertaining to the self (peers, parents, school, and personal interests). Sample items included "There are lots of things about myself I would change if I could" and "I can make up my mind without too much trouble." Although the SEI has been criticized for having a negative skew, a high correlation with social desirability, and an unstable factor pattern (Robinson, Shaver, & Wrightsman, 1991), it has shown good reliability and validity indicators and has been a traditional measure of self-esteem in classroom research. For the current sample the scale yielded a Cronbach's reliability alpha of .74. We measured communication apprehension with the 24-item, 5-point, Likert-based Personal Report of Communication Apprehension scale (PRCA; McCroskey, 1982). Sample items included "I like to get involved in group discussions" and "Engaging in group discussions with new people makes me tense and nervous." The PRCA has been

widely used and is reliable and valid (Robinson et al., 1991). We measured extraversion with Cheek and Buss's (1981) single-item 10-point scale, with introversion and extroversion as the endpoints. We included questions regarding the participants' familiarity with children's videos and child development to ensure that familiarity with the topic was not a factor resulting in more or less participation.

Procedures

We set up the room prior to the arrival of the participants. We placed paper and pencils to indicate the placement of the participants in the room. Once everyone was seated, the experimenter told a cover story regarding the need for participants' feedback on children's movies. The experimenter told the participants that their input was important and that they would receive a candy bar at the end of "class" as an additional incentive for their cooperation. The experimenter asked them to think about what would be considered entertaining and educating for preschool-aged children (ages 5–7) and instructed them to utilize the paper and pencils to record any thoughts or feelings they had while attending to the movie clips. Following this brief introduction, the 5-min clip of a Richard Scarry video was shown, followed by the 5-min clip of *Blue's Clues*.

Once the videos were finished, the experimenter sat down next to the participants and asked for feedback. The experimenter made no eye contact and gave little to no verbal or nonverbal feedback to the participants. The experimenter appeared to be concentrating on taking notes regarding the content of the conversation. We used a video camera to record the participants during the experiment and coded the tapes for classroom participation at a later date. A single rater measured classroom participation in two ways: the number of times each person spoke and how long each person spoke (overall and per "turn"). Following the end of the discussion, the experimenter handed out a questionnaire containing the measures of self-esteem, communication apprehension, and extraversion. After completion of the questionnaires, the experimenter debriefed the participants and thanked them for their participation.

Results

Table 1 shows the correlations among the independent variables self-esteem, communication apprehension (PRCA), and extraversion. High self-esteem was related to lower communication apprehension. Extraversion was related to higher self-esteem and lower communication apprehension. Correlations ranged from $-.43$ to $.36$. The descriptive statistics

TABLE 1
Correlations Among the Independent Variables

	Self-esteem	PRCA	Extraversion
Self-esteem	1.00	-.36	.36
PRCA ^a		1.00	-.43
Extraversion			1.00

^aHigher score indicates higher communication apprehension.

on the independent and dependent variables are as follows: global self-esteem ($M = 42.38$, $SD = 8.90$, range = 19.00–58.00), extraversion ($M = 6.53$, $SD = 1.72$, range = 3.00–9.00), communication apprehension ($M = 59.32$, $SD = 16.42$, range = 24.00–96.00), the number of times each person spoke ($M = 2$, $SD = 1.56$) and the length of time each person spoke ($M = 12.8$, $SD = 17.54$). Table 2 shows the zero-order correlations between each of the independent variables and the dependent variable of classroom participation (an aggregation of the standardized measures of times spoken and overall number of seconds spoken, correlated with each other, $R[48] = .66$, $p < .01$). All three independent variables were significantly related to classroom participation in the expected direction.

For our primary analysis of exploring the unique relation between self-esteem and classroom participation, we used hierarchical regression to control for the effects of the other variables. We assessed the variance in participation that is accounted for by communication apprehension and extraversion in the first step of a regression, then we entered self-esteem. This procedure allowed us to look at the relation of global self-esteem to participation while controlling for the effects of the other variables. Self-

TABLE 2
Zero-Order Correlations Between the Independent Variables and Classroom Participation

	Classroom participation ^a
Self-esteem	.34*
Extraversion	.30*
PRCA	-.50***

^aStandardized aggregate of the number of times spoken and overall number of seconds spoken.

* $p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 3

**Summary of Hierarchical Regression
Analysis for Variables Predicting
Classroom Participation (N = 47)**

Variable	B	SE	β
Step 1			
Communication apprehension	-3.88	.01	-.41*
Extraversion	5.93	.14	.06
Step 2			
Self-esteem	3.05	.03	.17

Note. $R^2 = .25$ for step 1; $\Delta R^2 = .28$ for step 2; *ns*.

* $p < .01$.

esteem provided no independent explanation of group participation above and beyond communication apprehension and extraversion (see Table 3). Extraversion was not significantly related to group participation. Finally, familiarity with children's videos and seating arrangement had no significant correlation with group participation.

Discussion

The hypothesis stating that self-esteem would contribute independently to small group participation was not supported. Self-esteem was not an independent predictor of small group participation; however, it was moderately correlated. Communication apprehension was strongly related to small group participation. Although it is possible that a more domain-specific measure of self-esteem would have yielded independent effects, the strong predictive power of communication apprehension suggests that future research would be best focused on more "communication-specific" predictors. The results suggest that even when students are motivated to contribute, familiar with the discussion topic, or interested in the topic, they may be inhibited due to fear of speaking.

As discussed earlier, educational success has long-term effects on individuals, including income levels and status in our society (Tsui, 1998; Witherspoon et al., 1991). Additionally, there is strong evidence that high communication apprehension is linked to several negative academic outcomes, including lower participation, lower grades, higher dropout rates, and decreased teacher-student interaction (Jaasma, 1997; McCroskey et al., 1989). Given these findings, it is important to reduce communication apprehension

in the classroom in order to increase participation. There is evidence that early intervention with high communication apprehension can help students attain success in the classroom (Tollefson & Smith, 1998). Early intervention is necessary because communication apprehension seems to have its strongest impact during the first two years of college (McCroskey et al., 1989).

A survey conducted in 1997 revealed that only 13% of colleges and universities reported offering a special course or program for students with communication apprehension (Robinson, 1997). Instead, instructors are working on adding techniques into their speaking courses to help students overcome their apprehension (Robinson, 1997). These techniques include systematic desensitization, cognitive restructuring, visualization, and skills training (Dwyer, 2000). Additionally, instructors are creating a supportive and positive environment to help alleviate some apprehension (Robinson, 1997). "It is concluded the impact of communication apprehension on the probability of high communication apprehension students' survival in college is substantial and this impact adds to the case favoring the provision of training programs to assist such students overcome their apprehension about communication" (McCroskey et al., 1989, p. 100).

Although we expected to find a relation between self-esteem and participation, the strength of communication apprehension as a correlate of participation may be a more heartening finding. Whereas research indicates reliable reductions in communication apprehension in response to interventions, there is no such consistent finding in terms of interventions for self-esteem. It is important for future research to evaluate interventions that promote speaking out in class and minimize communication apprehension among students for long-term effects. In order for future studies to be more successful, researchers could use a real classroom setting already established for educational purposes to provide more realistic responses or more intense motives for future respondents to participate.

There are several limitations to this study. Although small groups are used in classroom situations, one small group of five persons is not an accurate depiction of a real classroom. The small number of participants, with the experimenter taking notes alongside them, may have encouraged or inhibited participation in a way that may or may not have occurred naturally.

The video discussion took place prior to the completion of the questionnaire. We implemented this procedure to prevent the participants from

determining the purpose of the study prior to their actual participation. However, the participants may have filled out the questionnaires based on the amount of participation they had within the group instead of their more stable underlying dispositions. Overall, this study suggests that communication apprehension is a real barrier to future success. Students need to be given the tools they need to express their ideas among their teachers and peers.

References

- Allen, B. P., & Niss, J. F. (1990, April). A chill in the college classroom? *Phi Delta Kappan*, 71, 607–609.
- Baron, R. A. (1998). *Psychology* (4th ed.). Needham Heights, MA: Allyn & Bacon.
- Burnett, P. C. (1998). Measuring behavioral indicators of self-esteem in the classroom. *Journal of Humanistic Education & Development*, 37, 107–116.
- Byrnes, D. A. (1984). Forgotten children in classrooms: Development and characteristics. *The Elementary School Journal*, 84, 271–281.
- Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology*, 41, 330–339.
- Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: W. H. Freeman.
- Daly, J. A., & McCroskey, J. C. (Eds.). (1984). *Avoiding communication: Shyness, reticence, and communication apprehension*. Beverly Hills, CA: Sage.
- Drake, L. E., & Thiede, W. B. (1948). Further validation of the Social I.E. Scale for the Minnesota Multiphasic Personality Inventory. *The Journal of Educational Research*, 41, 551–556.
- Dwyer, K. K. (2000). The multidimensional model: Teaching students to self-manage high communication apprehension by self-selecting treatments. *Communication Education*, 49, 72–81.
- Jaasma, M. A. (1997). Classroom communication apprehension: Does being male or female make a difference? *Communication Reports*, 10, 219–228.
- McCroskey, J. C. (1982). *An introduction to rhetorical communication* (4th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- McCroskey, J. C., Booth-Butterfield, S., & Payne, S. K. (1989, Spring). The impact of communication apprehension on college student retention and success. *Communication Quarterly*, 37, 100–107.
- McCroskey, J. C., & Sheahan, M.E. (1978). Communication apprehension and social behavior in a college environment. *Communication Quarterly*, 26, 41–50.
- Morrison, T. L., & Thomas, M. D. (1975). Self-esteem and classroom participation. *The Journal of Educational Research*, 68, 374–377.
- Myers, D. G. (1995). *Psychology* (4th ed.). New York: Worth.
- Robinson, J. P., Shaver P. R., & Wrightsman, L. S. (Eds.). (1991). *Measures of personality and social psychological attitudes*. New York: Academic Press.
- Robinson, T. E., II (1997, July). Communication apprehension and the basic public speaking course: A national survey of in-class treatment techniques. *Communication Education*, 46, 188–197.
- Tollefson, M. M., & Smith, R. L. (1998). Utilizing the Personal Report of Communication Apprehension–24 for assessing the introductory public speaking course. *Journal of the Wisconsin Communication Association*, 29, 31–41.
- Tsui, L. (1998). The effects of gender, education, and personal skills self-confidence on income in business management. *Sex Roles*, 38, 363–373.
- Williams, R. L. (1971). Relationship of class participation to personality, ability, and achievement variables. *The Journal of Social Psychology*, 83, 193–198.
- Witherspoon, A. D., Long, C. K., & Nickell, E. B. (1991). Dropping out: Relationship of speaking anxiety to self-esteem, crime, and educational achievement. *Psychological Reports*, 69, 673–674.