

## Creating the Teaching-Learning Environment You've Always Dreamed Of

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*by Linda Cantwell*

If you're leading but no one is following, you're simply out for a walk; if you're teaching but no one is learning, are you simply out for a talk?" That paraphrase of the author John Maxwell's observation flowed from the lips of my college president with a sheepish grin.

I decided that to respond to the president's challenge, I must examine the added value of strengths-based interventions. I redesigned my dissertation experiment to measure the impact of strengths-based teaching in two classrooms of our school's Introduction to Public Speaking course. To establish that I wasn't simply "out for a talk," I required an additional text, implemented new assignments, and devoted the first four days of the semester to a strengths-development program in an already crowded course curriculum.

### **Research Design**

Numerous research studies (Austin 2005; Gillum 2005; Norwood 2005; Anderson, Schreiner, and Shahbaz 2003, 2004; Turner 2004; Williamson 2002) suggest that strengths-development programs positively affect many traits: student optimism, strengths awareness, self-confidence, self-acceptance, goal-directedness, affirmation of others, sense of control, realistic expectations, GPA, avoidance of disciplinary action, quality of effort, school involvement, timely class attendance, ability to effectively collaborate with colleagues, clarity for developing a career path and goals, confidence to assume advanced administrative or leadership roles within public schools, academic self-efficacy, positive self-concept, positive perception of others, and awareness of others' strengths.

No studies, however, have been conducted regarding the impact of personal-strengths development on specific learning outcomes. Consequently, I designed an experiment in an Introduction to Public

Speaking course with student-learning outcomes culled from course syllabi, instructors' manuals, literature, and the National Communication Association. The independent variable was the instructional method—either traditional or strengths based. The three dependent variables were the content knowledge of the course, measured by average exam scores; speech-delivery skills, measured by videotaped speeches; and levels of academic engagement, measured by the *Academic Engagement Index* (Schreiner 2004).

Of course, several considerations were critical to ensuring the feasibility as well as the validity of my proposed experiment. They included research design, treatment fidelity, methodological framework, sample, instruments, and procedures.

A quasi-experimental, nonequivalent control-group design that employed pre-tests and post-tests was chosen for three reasons. First, examining the impact of a strengths-based approach necessitated a control group against which to compare the effects of the independent variable—the instructional method. Second, an inability to assign participants randomly to course sections created a need for pre-tests, which functioned as covariates to prevent the potential threat that differential selection (age, gender, IQ, reading ability, attitude) could pose to internal validity (Shadish, Cook, and Campbell 2002). Third, the design offered the most statistical power under these circumstances to explore the differences between the two groups and begin to establish a cause-and-effect relation between the independent and dependent variables.

The use of pre-tests prior to the intervention enabled control not only for differential selection but also for assessing whether the treatment and control groups were significantly different from one another on variables that would affect their performance on the dependent variables. Three pre-test measures were included: (1) participants' previous knowledge of the course content of a public-speaking class; (2) public-speaking delivery skills at the beginning of the course; and (3) level of academic engagement the first week of class. Because the three variables were hypothesized to affect the participants' performance on the dependent variables that were measured at the end of the course, they were used in the statistical analyses as covariates.

Two additional threats to internal validity were considered and controlled for in this study: the Hawthorne effect and the experimenter effect (or experimenter bias). The Hawthorne effect (Gall, Gall, and Borg 2003), or improvement in participants' performance simply through awareness of their involvement and of the special attention accorded their participation, was addressed by minimizing special attention given to the research participants. I did not purposefully engage the participants outside class, except by appointment, or meet with the partici-

pants socially, treating both the experimental and control groups equally and making sure both groups were aware that they were part of an experiment.

The issue of experimenter bias was important because I alone designed and conducted the study, interpreted the data, administered the treatment, and collected the data. Therefore, experimenter bias was addressed by using treatment-fidelity videotaping (Gall, Gall, and Borg 2003). I was videotaped each day in both classes. Although each class session was videotaped for a total of forty-two sessions, there were a possible nineteen *regular* class days during which I conducted the class for the entire fifty-minute session. Other class days involved the students delivering speeches, taking exams, or listening to a guest lecturer.

To further ensure treatment fidelity, a trained independent rater holding faculty status in education at her institution was given six randomly selected videotapes. Each videotape contained one day's sessions. The viewing of the tapes was counterbalanced by giving the rater six videotapes: three that began with the experimental-group session and three that began with the control-group session. Each videotape was evaluated for uniformity of my classroom behaviors and attitudes measured by an instrument adapted from *Assessing Faculty Work: Enhancing Individual and Institutional Performance* (Braskamp and Ory 1994) after consultation with higher-education professionals.

### Sample

#### *Description*

My sample included sixty first-time college freshmen who enrolled in one of two Introduction to Public Speaking courses. Participants voluntarily enrolled in each section without knowing the teaching methodology. A coin flip deter-



mined one section as the experimental class that would be taught from a strengths-based perspective. The other section, designated the control group, was taught using the traditional method of teaching an Introduction to Public Speaking course. Both sections of the course met three days each week for fifty-minute sessions across one fourteen-week semester. The total class time was forty-two periods, and thirty students per class completed the three pre-tests.

### *Rationale*

An Introduction to Public Speaking class was the course selected for this research study because I had experience teaching public speaking; public speaking is a core course at my college. Enrollment was limited to entering freshmen because of the importance of the first year in getting participants a good start in their education (Tinto 1993).

## **Dependent Measures**

### *Measurements of Public-Speaking Content Knowledge and Learning*

Four examinations (one at the beginning of the semester; three during the course of the semester) measured how well students learned content elements of effective oral communication measured by average exam scores, and thus the dependent variable. Those four examinations were objective assessments of basic concepts and principles of oral communication and public speaking. Specific items were extracted from the instructor's manual (Lucas 2004) based on the section of the text covered and on consultation with other professionals who had advanced training in speech and oral communication.

A twenty-five-item objective pre-test was administered on the first day to determine the participants' pre-existing, discipline-specific knowledge of public speaking. The other three instruments were objectively scored in-class examinations that measured the extent to which students learned the content elements of effective oral communication. They covered assigned sections of the textbook and my lectures. Those three instruments were averaged and used to assess the extent to which students learned the content elements of effective oral communication, thus measuring the first dependent variable.

### *Measurements of Delivering Effective and High-Quality Speeches*

The *Competent Speaker Speech Evaluation Form*, a statistically reliable and valid tool for the assessment of public-speaking performance developed by the Speech Communication Association (Morreale et al. 1993), was administered on two occasions. The form, designed for evaluating public-speaking skills, focuses on assessing the verbal and non-verbal behaviors involved in competent public speaking, as opposed to

knowledge about, or motivation to engage in, public speaking. The instrument has established overall interrater reliability for the participants' total score on the instrument with Ebel's coefficient reading 0.92. In addition to reliability testing, the instrument and its criteria met content or face validity (Morley, Morreale, and Hulbert-Johnson 1991).

For my study, the *Competent Speaker Speech Evaluation Form* was used by independent raters to evaluate the participants' pre-test and post-test videotaped speeches. Each participant gave two five-minute speeches to inform, and each one was videotaped. The videotaped speeches were used to assess the participants' speech-delivery skills. The first speech (pre-test) was given during the first week of the experiment, and the second speech (post-test) was given during the last week of the experiment.

Two communication professionals with graduate degrees and faculty rank at their respective institutions received training on the instrument before interrater reliability was established at 75 percent (Stemler 2001). The two raters then evaluated fifty-five pre-test and post-test videotaped speeches that had been randomly sorted. The blind raters knew neither whether the speakers were in the treatment or the control group nor whether the speeches were given during the first week or the final week of the experiment. The evaluators used clearly defined scores on a six-point scale in each of the instrument's eight competencies.

### *Measurements of Levels of Academic Engagement*

The *Academic Engagement Index* (Schreiner 2004) was administered on two occasions as both a pre-test and post-test measurement of the participants' academic engagement in college. The established coefficient alpha reliability of this twenty-item instrument is 0.84 (personal communication, L. A. Schreiner, June 16, 2004). All twenty questions were included as the pre-test, administered during the first week of the term, and post-test, administered during the last week of the term.

## **Strengths-Based Instruction**

The two sections of the Introduction to Public Speaking course were taught by me, but in two distinctive manners. I taught the experimental group using a strengths-based approach, which was the independent variable. The control group did not receive that treatment. Instead, I taught the control group from a traditional method characteristic of most public-speaking courses (Lucas 2004).

### *The Clifton StrengthsFinder*

The independent variable of a strengths-based approach to teaching included the use of the Gallup Organization's *Clifton StrengthsFinder*

(Gallup Organization 1998) to assess participants' strengths. The experimental group received that instrument, and the control group did not. The *StrengthsFinder* has an average coefficient alpha reliability of 0.79 and six-month test-retest reliability estimates ranging from 0.60 to 0.80 across the thirty-four themes (Gallup Organization 2004). For this study, the experimental-group participants were introduced to the *StrengthsFinder* after they had completed all pre-tests. The participants took the assessment during the first week of the semester.

### *Strengths-Based Instruction*

*Strengths-based approach.* I taught the experimental group from a strengths-based method that involved two steps. The first step involved identifying and affirming the strengths and talents of each participant by administering the *StrengthsFinder*. The second step involved encouraging and reinforcing the participants to develop and intentionally apply their strengths and talents in learning and performance activities. In four fifty-minute class sessions the participants: (1) identified for their peers' strengths discovered through the online assessment, the *StrengthsFinder*; (2) identified at least one strength that they would intentionally use in reading a chapter in their public-speaking textbook; (3) identified at least one strength that they would intentionally use when studying for an examination; and (4) were encouraged to use their strengths more intentionally and consistently as they learned and performed in the Introduction to Public Speaking class (Clifton and Anderson 2002).

The process of reinforcing participants was an ongoing process of interaction between the class and me, both collectively and individually. For example, after speeches were given, I called particular attention to the point at which each participant performed best. I then helped the participants understand how their specific strengths and talents enabled them to perform well in that particular aspect of the public-speaking process. Further, I encouraged the participants to think of ways in which they could use their specific strengths in making their speeches even more effective. Participants also were encouraged to think of how they could apply their most powerful strengths to other aspects of speech delivery in which they wanted to be more effective.

*Traditional approach.* I taught the control group using the traditional method of professor-centered articulation of course content and public-speaking principles. That method of teaching and educating involves three basic elements. The first component identified the weaknesses of student performance. The second aspect focused attention on the areas that needed improvement. The third element included instructing participants in what they needed to learn and how they needed to improve to increase their performance.

The overt message given to participants by the traditional method of teaching was that if they wanted to achieve, then they had to overcome their weaknesses and areas of underperformance. Although some class sessions were devoted to methods of overcoming specific areas of weakness, I focused the participants' attention on specific areas of their speech preparation and performance that needed improvement. Similar patterns were followed in giving feedback on tests and other written assignments.

### *Treatment Fidelity*

The ten-item *Classroom Observation Rating Form* measured and assessed my integrity in administering the intervention. Specifically, this instrument measured the uniformity of my classroom behaviors in both the experimental and control groups. The form was adapted from the work of Braskamp and Ory (1994) after consultation with other higher-education professionals. Six videotaped sessions that included both groups were randomly selected. The videotapes were then counterbalanced: three were wound to begin with the experimental group, and three were wound to begin with the control group. The six videotapes were rated by an education professional with faculty rank at her institution; she was paid to serve as a blind rater.

### **Conclusion**

Often, irony occurs in conducting research investigations. Sometimes the very best discoveries and the very best insights are not captured by the dependent-variable measurements established at the beginning of the experiment. Only one week after beginning the experiment, I began documenting behavior patterns of the students in both sections. There were enormous differences. Students in the strengths class typically came to class on time, while students in the traditionally taught class did not. Students in the strengths-based class had better class attendance, while students in the traditional class missed class more frequently. In the traditional class, I frequently had to stop teaching in order to curtail side conversations and disruptive behavior. However, I rarely had to say anything about side conversations or disruptive behavior in the strengths class. There was an average of three times more questions asked and three times more contributions made to discussions in the strengths class. Those patterns also were evident in whether assignments were turned in on time. All such patterns are direct indicators of academic engagement and are supported by the literature on behavioral academic engagement (Birch and Ladd 1997; Fincham, Hokoda, and Sanders 1989).



I was now ready to approach my college president and tell him that I simply was out for neither a walk nor a talk; students were learning and I could prove it! Research would suggest that we cannot overemphasize the importance of engaging students academically. Winston Doby (as cited in Clifton and Anderson 2002) has asserted that the fundamental challenge of every educator is how to engage the mind of the learner. Simply stated, if the mind of the learner is not engaged, learning will not occur (Brophy and Good 1986; Connell, Spencer, and Aber 1994; Connell and Wellborn 1991; Finn 1993; Finn and Rock 1997; Hofer 2002).

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