Research: The Talking Together PD CD Program

Overview
The Talking Together Program is used to teach students how to participate respectfully in discussions. To test the effects of a CD program versus a videotaped program for instructing teachers in how to teach the Talking Together Program, a study was conducted with 30 general education teachers who taught a total of 570 students in grades 4 and 5. The teachers were randomly selected into one of three groups. Ten teachers worked through the CD program and the instructor’s manual (hereafter referred to as the “CD group”) to learn how to teach the Talking Together Program. Ten teachers (hereafter referred to as the “video group”) watched the videotape and read the manual. Ten teachers (hereafter referred to as the “manual group”) read the instructor’s manual only.

The purpose of the study was to determine the comparative effects of CD/manual combination, the video/manual combination, and the manual alone in terms of teacher and student outcomes. A posttest-only control-group design was used to determine the effects of the two methods of teacher instruction on teacher knowledge, implementation of the program, and quality of instruction. A pretest-posttest control-group design was used to compare teacher scores on their lecture delivery methods. A pretest-posttest control-group design was also used to determine the effects of the teachers’ instruction on student performance. Three types of analysis were used: a t-test, an analysis of covariance (ANCOVA), and the general linear mixed model (GLMM). All outcome (dependent) variables used in these analyses were treated as continuous variables. All analyses were conducted using a level of significance (alpha) of .05.

Results
The teachers’ implementation of the Talking Together Program was measured in the classroom after they had read the manual or worked through the CD and the manual or watched the video and read the manual. The mean percentage of instructional steps implemented by the CD group was 91%; the mean percentage of steps implemented by the video group was 90%; and the mean percentage of steps implemented by the manual group was 88%. There were no statistical differences among the groups.

The quality of the teachers’ instruction was measured by observers using a checklist that listed the components of quality instruction. The general linear mixed model approach revealed a significant difference between the three groups of teachers, $F(1, 27) = 3.78, p = .036$. The mean score for the CD group ($M = 94\%$) was significantly higher than the mean score for the video group ($M = 78\%$) ($p = .014$). The mean score for the CD group also was significantly higher than the mean for the manual group ($M = 82\%$) ($p = .054$), although this probability value is slightly less than the .05 alpha level needed for significance. The mean score for the manual group did not differ significantly from the mean score for the video group.
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Figure 1. Average number of participations per student during the pretest and posttest

The mean number of compliments the teachers gave students during discussions are shown in Figure 2. An ANCOVA revealed a significant difference between the groups after instruction when the pre-instruction scores were used as the covariate, F(2, 25) = 3.74, p = .038. Follow-up tests revealed that the CD group gave more compliments than the manual group (p = .020) and the video group (p = .037).
The three groups of teachers also took a written test of their knowledge of the Talking Together Program. An ANOVA revealed a significant difference between the mean scores of the groups, $F(2, 27) = 9.74, p = .001$. Follow-up analyses revealed that the CD group earned statistically higher scores ($M = 79\%$) than the manual group ($M = 49\%$) and the video group ($62\%$). No difference was found between the scores of the manual group and the video group.

The CD group teachers completed a satisfaction questionnaire about the CD program. Their mean ratings on items on a 7-point Likert-type scale (with “7” indicating completely satisfied to “1” indicating completely dissatisfied) ranged from 6.4 to 6.8, with an overall mean rating of 6.6. The video group teachers completed a satisfaction questionnaire about the video program. Their mean ratings on individual items ranged from 5.8 to 6.3, with an overall mean rating of 6.6.

Teachers in all three groups completed a satisfaction questionnaire about the Talking Together Program. The manual group had an overall mean rating of 6.1, the video group had an overall mean rating of 6.2, and the CD group had an overall mean rating of 6.5.

The students in the three groups of classes took a written test of their knowledge about participating in discussions. Although all the groups’ mean scores increased from pre-intervention to post-intervention, no differences were found between the groups at posttest. (See Figure 3 for mean scores).
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Figure 3. Mean pretest and posttest scores for the Student Knowledge Survey

Conclusions
Working through the CD professional development program combined with reading the manual produced better results in terms of teacher knowledge, quality of instruction, proportion of students involved in discussions, and number of compliments given by the teachers than does reading the manual alone or watching a videotape and reading the manual. Teachers in the CD group were satisfied with the CD software program; teachers in the video group were satisfied with the video program; and teachers all three groups were equally satisfied with the Talking Together Program.

Reference