

CTB/McGraw-Hill

**2006 WEST VIRGINIA
WRITING ASSESSMENT
COMPARISON STUDY**



West Virginia

Department of Education

Overview

The West Virginia Department of Education offered school districts (counties) the opportunity for students in 7th and 10th grades to practice for their annual West Virginia Custom Writing Assessment, using the CTB Writing RoadMap™ and its scoring software. About 60% of students used the opportunity, with at least one practice session. This report summarizes some analyses of the impact of practice on writing assessment scores. The summary score from all five rating traits was the principal measure reported here, although similar results were also found for the percentage of students at the mastery level.

A number of analyses were conducted. We begin with an overview of the data and procedures. In the next section, we provide data on the effects of practice on individual scores, overall and for each prompt. The two grades were analyzed separately. In the third section, we provide results of correlation analyses conducted at the county level, examining such factors as size, pre-practice (2005) scores, participation levels, and changes in scores. In the fourth section, we present an analysis of level of participation and change scores. This graphic presentation illustrates some of the numeric results in the preceding section. We conclude with a summary of results. Each level of analysis has its limitations and each reveals something about the effects of practice and the counties involved.

It should be noted that this is a post-hoc field study; counties, schools, and students were not randomly assigned to practice, but self-selected their use and level of participation. This means that no conclusions may be made with respect to causal inference (i.e., practice causes growth). The results can be suggestive of the impact of practice, to the extent that they are clear and consistent. Please note that the confounding factor of learning and practice effects is not addressed in the study.

Procedures for analysis

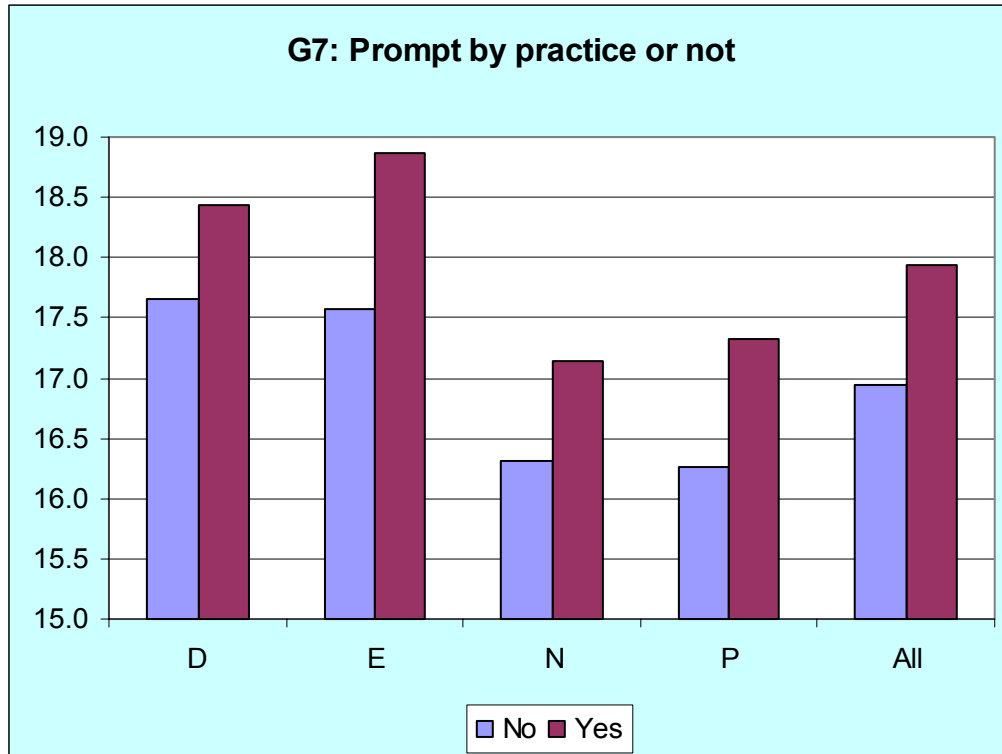
Data used in this study come from the 2005 and 2006 West Virginia Custom Writing Assessment operational scores, as well as a list of all practice sessions using the CTB Writing RoadMap™ in the State. This list included all 7th and 10th grade schools participating, both public and private, with multiple entries for additional practice sessions for some students. The unique number of students who practiced per county was then obtained.

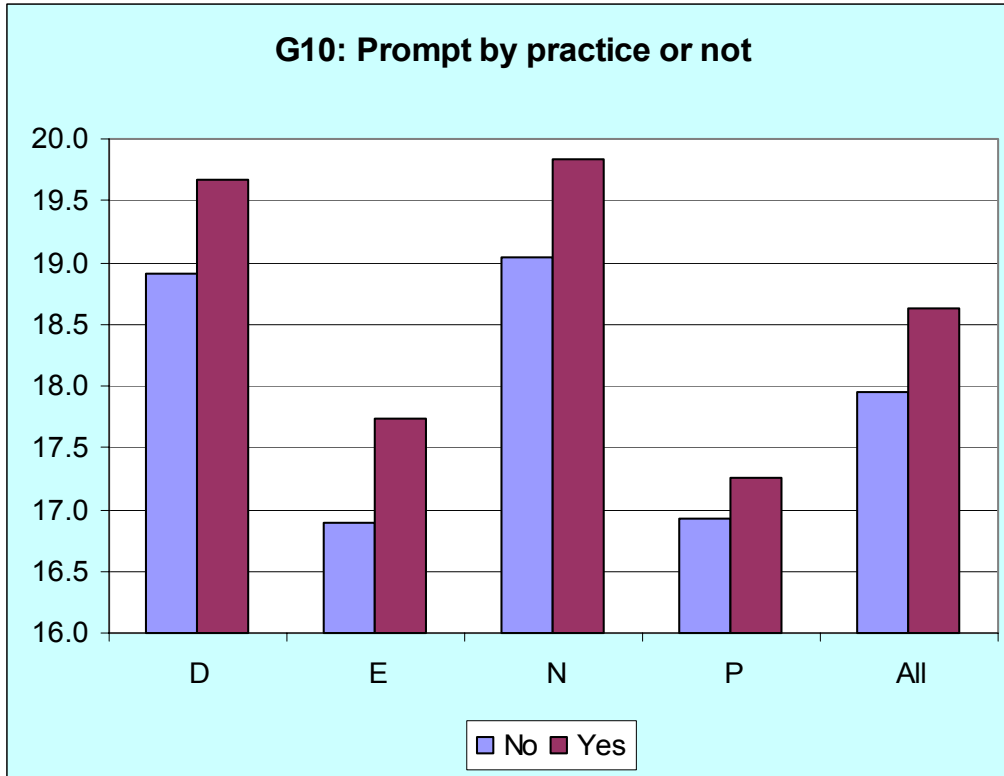
It was determined that OIEP and WVSDB were outliers, and although their small numbers would not affect total student results, their impact as a “county” skews the results and, therefore, were excluded from the analyses. Analyses of both 2005 and 2006 assessment data included both public and private schools, to be consistent with the data presented in the practice dataset.

Sixty percent of all students had at least one practice session (62 and 58% for 7th and 10th grade, respectively). The average number of practice sessions, for those who did practice, was 2 (1.8 and 2.2 for 7th and 10th grades).

Practice at the student level

Analyses were conducted at the student level to compare those who practiced with those who did not, across all counties and schools. The two figures below, for grades 7 and 10, respectively, show the 2006 summary scores across all prompts (All) and for each type of prompt (D=Descriptive, E=Expository, N=Narrative, P=Persuasive).





The difference, on average, was 1 point for those in grade 7 and just over ½ point in grade 10. This small difference translates to about 3-6 percentage points in Mastery levels. A t-test across prompts showed these differences to be statistically significant. Subsequent t-tests for each prompt showed that the differences were only significant for Descriptive and Expository prompts in grade 7, and significant for all four prompts in grade 10. These results seem to indicate that students using the CTB Shelf Writing Road Map prior to the WV Writing Assessment scored consistently higher than those students without participation. The time period between the practice writing and the operational writing assessment, however, should be long enough to allow memory effects of the prompts to fade.

Practice at the county level

A series of correlational analyses were done at the county level (N=55). Specifically, we examined the effect of county size (N of students) on scores in 2005 and 2006, change scores, and participation levels. We also examined the relationship between participation levels and scores in 2005 and 2006, as well as change scores. Participation level is the percent of students in the county who had at least one practice session. These results are presented in the tables below.

Relationships with county size (N students)

Variable 1	Variable 2	Grade 7	Grade 10
N 2005	Scores 2005	0.22	0.30
N 2006	Scores 2006	0.14	0.32
N 2005	Change scores	-0.07	-0.02
N 2005	Participation level	0.10	-0.09

The effect of county size on scores is positive in all cases, and significant in grade 10—bigger counties tend to do better. However, it has no effect on change scores and no effect on the level of participation in practice sessions.

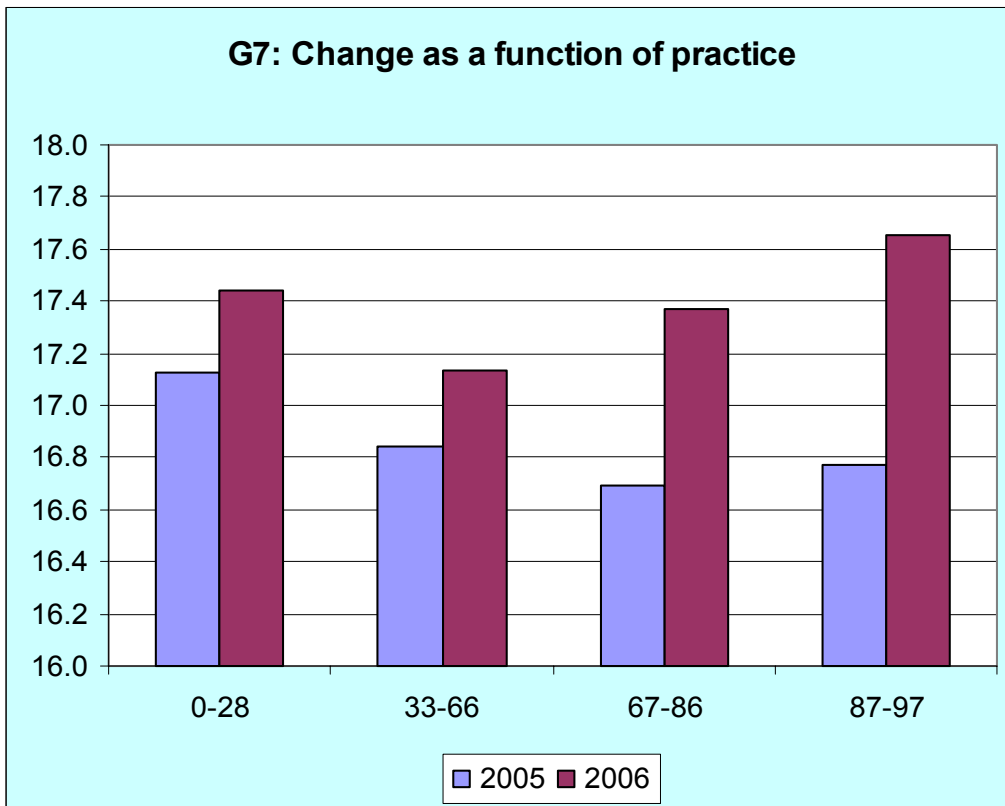
Relationships with levels of participation

Variable 1	Variable 2	Grade 7	Grade 10
Participation level	Scores 2005	-0.17	-0.25
Participation level	Scores 2006	0.05	-0.13
Participation level	Change scores	0.28	0.15

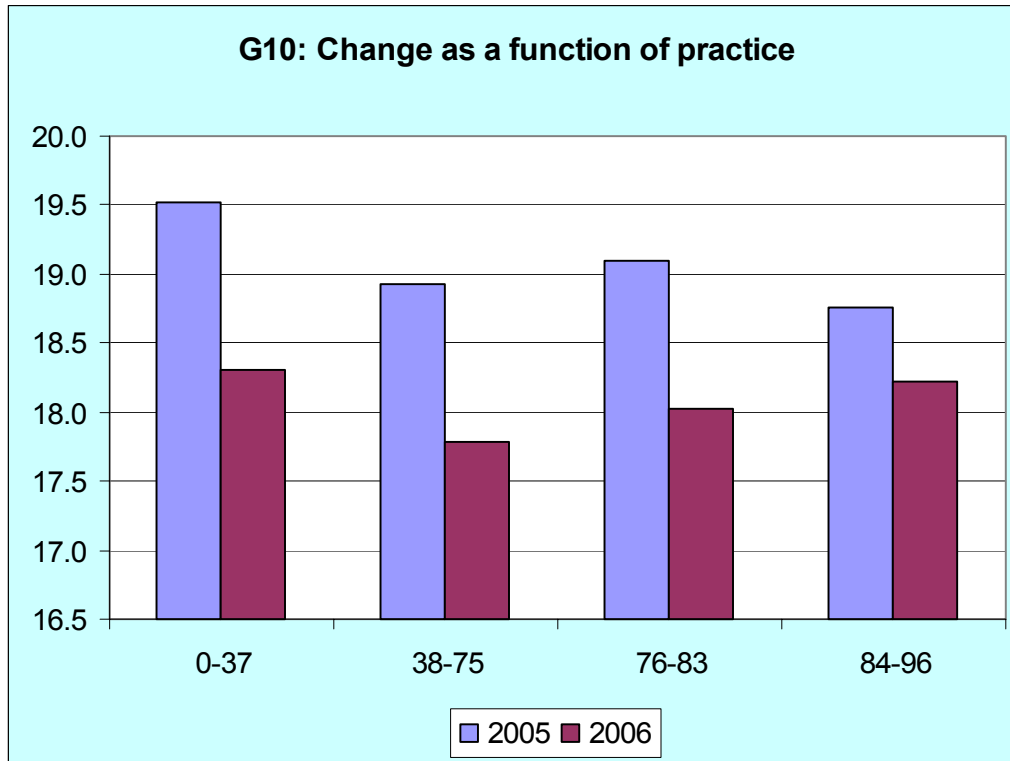
The relationships between participation and pre-practice scores (2005) are negative for both grades, and barely significant for grade 10. This suggests that those who did better last year practiced less this year. The correlations with change scores were both positive, and significant for grade 7. This suggests more practice, more gain.

Measures of change in summary scores from 2005 to 2006 as a function of participation level

The 55 counties were ranked in order of participation level, separately for grades 7 and 10. These were grouped into quarters, with about 14 (13-15) counties per level of participation. The counties for each group are provided in the Appendix. The following figures show the change (2006-2005) in summary scores.



The next figure shows the change in summary scores for grade 10.



For grade 7, those counties who participated more tended to have had lower scores the prior year than those with less participation. Greater gains are shown by those counties with more participation. For grade 10, those counties with the least participation had the highest of the scores of the four groups in 2005. Given the decline in overall score level between the two years, the largest declines were for the lowest participation group and least for the highest participation group, resulting in similar scores in 2006 between the two end groups.

Summary and conclusions

The purpose of this study was to determine the effect, if any, of writing practice sessions using CTB Writing RoadMap™ on the West Virginia Custom Writing Assessment. Across all counties, students who practiced did significantly better than those who did not.

Two other factors were found that have influence on scores. First, larger counties tended to do better than smaller counties. Second, counties with lower performance scores in 2005 tended to participate more in the practice sessions. Yet, those counties that participated the most had either the largest gains (grade 7) or the least decline (grade 10).

Appendix

Grade 7 Counties by Participation Level

Level 1 (0-28%)	Level 2 (33-66%)	Level 3 (67-86%)	Level 4 (87-97%)
OHIO	MCDOWELL	BERKELEY	GRANT
WEBSTER	GILMER	PLEASANTS	UPSHUR
MARSHALL	WOOD	MARION	CLAY
JEFFERSON	WETZEL	NICHOLAS	SUMMERS
WYOMING	CABELL	BRAXTON	LOGAN
LINCOLN	MONROE	HANCOCK	GREENBRIER
MORGAN	MERCER	RITCHIE	TAYLOR
BROOKE	PUTNAM	MONONGALIA	MINGO
DODDRIDGE	MINERAL	MASON	BARBOUR
WIRT	KANAWHA	FAYETTE	HAMPSHIRE
TYLER	ROANE	RALEIGH	HARDY
POCAHONTAS	PRESTON	HARRISON	LEWIS
PENDLETON	BOONE	TUCKER	CALHOUN
RANDOLPH	JACKSON	WAYNE	

Grade 10 Counties by Participation Level

Level 1 (0-37%)	Level 2 (38-75%)	Level 3 (76-83%)	Level 4 (84-96%)
RITCHIE	BERKELEY	MINGO	TUCKER
MASON	SUMMERS	WEBSTER	BROOKE
JACKSON	BARBOUR	CALHOUN	WYOMING
TAYLOR	UPSHUR	MORGAN	LOGAN
PRESTON	KANAWHA	HARDY	CLAY
HAMPSHIRE	BOONE	MONROE	PENDLETON
LINCOLN	MCDOWELL	MINERAL	BRAXTON
CABELL	MERCER	MARION	MONONGALIA
OHIO	LEWIS	ROANE	RALEIGH
MARSHALL	GRANT	WOOD	PLEASANTS
DODDRIDGE	FAYETTE	WIRT	GREENBRIER
JEFFERSON	HANCOCK	POCAHONTAS	GILMER
RANDOLPH	HARRISON	WAYNE	NICHOLAS
TYLER		WETZEL	
		PUTNAM	