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AUTHOR Green, Kathy E.
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ABSTRACT

Studies of teacher use of tests suggest that classroom tests are widely used and standardized test results are rarely used. Previous comparisons of preservice and inservice teachers' attitudes toward assessment suggest few differences. Differences in opinions about the use of classroom and standardized tests were assessed via surveys of three groups: 84 college sophomores beginning a teacher education program; 152 college seniors completing a teacher education program, but without student teaching experience; and 553 inservice teachers in a western state. Significant differences in opinions were found, with inservice teachers having more favorable attitudes than teacher education students toward classroom testing and less favorable attitudes toward standardized testing. This difference may reflect current realities of test use in teachers' and students' lives. Two data tables and a 25-item list of references are included. (SLD)

DIFFERENCES BETWEEN TEACHERS AND STUDENTS IN OPINIONS ABOUT TESTING AND TEST USE

Kathy E. Green, Ph. D.
Associate Professor
University of Denver

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ABSTRACT

Studies of teacher use of tests suggest that classroom tests are widely used and standardized test results are rarely used. Previous comparisons of pre- and inservice teachers' attitudes toward assessment suggest few differences. This study undertook to assess differences among sophomores (n=84), seniors (n=152), and inservice teachers (n=553) in opinions about the use of classroom and standardized tests. Significant differences were found, with inservice teachers having more favorable attitudes than teacher education students toward classroom and less favorable attitudes toward standardized testing.

Test use in United States schools has been and continues to be extensive. It has been estimated that from 10-15% of class time is spent dealing with tests (Carlberg, 1981; Newman & Stallings, 1982). Gullickson (1982) found that 95% of the teachers he surveyed tested at least biweekly. The estimated percentage of students' course grades which are based on test scores is 40-50% with a range of 0-100% (Gullickson, 1984; McKee & Manning-Curtis, 1982; Newman & Stallings, 1982). Classroom tests, thus, are used frequently and may be used almost exclusively in determining students' grades.

In contrast, a review of past practice suggests minimal use by teachers of the results of standardized tests in making instructional decisions (Fennessey, 1982; Green & Williams, 1989; Lazar-Morrison, Polin, Moy, & Burry, 1980; Ruddell, 1985). Stetz and Beck (1979) conducted a national study of over 3,000 teachers' opinions about standardized tests. They noted that 41% of the teachers surveyed reported making little use of test results. This finding is consistent with that of Goslin (1967) and Boyd, McKenna, Stake, and Yachinsky (1975). Test results were viewed as providing information that was supplemental to the wider variety of information the teacher already possessed. Reasons offered for why standardized tests are given but results not always used by teachers include resistance to a perceived narrowing of the curriculum, resistance to management control, accountability avoidance (Darling-Hammond, 1985), and a limited understanding of score interpretation due to inadequate preservice training (Cramer & Slakter, 1968; Gullickson & Hopkins, 1987). Marso and Pigge (1988) found teachers to perceive a lower need for standardized testing skills than for classroom testing skills. They also found that teachers reported lower proficiencies in standardized test score use and interpretation than in classroom test score use and interpretation.

One factor which has been suggested to be related to appropriateness of test use is teachers' attitudes toward tests. Attitudes toward testing have been investigated by several researchers. Gullickson (1984) found teachers to agree that tests increase student effort, improve interaction, and generally improve the classroom learning environment. Green and Stager (1986-87) found teachers' opinions about testing to be significantly related to use of contemporary and appropriate measurement practices. Also, students' attitudes toward tests have been found to be significantly related to performance on standardized achievement tests (Karmos & Karmos, 1984). Karmos and Karmos found the attitudes toward achievement tests of the 6-9th graders they studied to be generally positive although 47% of their sample agreed that "taking achievement tests is a waste of time" (p. 61). If attitudes are related to test use by teachers and to test performance of students, attitudes toward testing should be more closely investigated.

Attitude development has been studied as part of teacher socialization research. Some studies of students' and beginning teachers' attitudes suggest that students become increasingly liberal in their attitude toward education throughout training but then adopt a more custodial or conservative attitude as they face the shock of everyday classroom life. Both longitudinal and cross-sectional studies support the notion of a change from conservative prior to training, to liberal after training, to conservative upon entering the profession. (See Veenman, 1984, for a review.) A contrasting view suggests that beginning teachers' attitudes are thought to derive from their own experiences as students, with the socialization process largely complete prior to entry into a teacher

education program (Petty & Hogben, 1980). This research suggests that there is little chance in attitude or orientation as a result of training, and that the changes that do occur are short-lived (Hogben, 1982; Lortie, 1975). Yarbrough and Riley's (1987) results would tend to support this idea. They found few differences between preservice and experienced teachers in orientation. One of the tasks perceived most often as a problem by beginning teachers is that of assessing student's work (Veenman, 1984). However, Reeves and Kazelskis (1985) found no differences in mean scores for preservice and inservice teachers when asked about their comfort in diagnosing student learning problems. This result might argue for no differences between pre- and in-service teachers in opinions about assessment, although for a substantial level of concern with assessment by both groups.

The results of test use studies suggest that inservice teachers should have relatively positive views toward classroom tests and relatively negative views toward standardized tests, if attitudes and test use are related. The results of socialization studies contrasting inservice and preservice teachers suggest that these two groups may not differ or that inservice teachers may have more conservative attitudes toward testing. If one equates conservatism with more favorable opinions about testing, this would suggest that inservice teachers would have more favorable attitudes toward testing than preservice teachers.

This study undertook to assess differences between student and teacher opinions about testing and test use. The following null hypotheses were formulated to direct the study.

H1. There are no significant differences in opinions about testing and test use between preservice and inservice teachers.

H2. There are no significant differences in opinions about testing between students early in their preparation (sophomores) and students late in their preparation (seniors).

H3. There are no significant differences among inservice teachers with differing years of experience.

METHOD

Samples

Three samples were drawn for this study. They were samples of (1) practicing teachers, (2) college sophomores beginning a teacher education program, and (3) college seniors completing a teacher education program (but prior to student teaching). For the first sample, survey forms were mailed to 700 randomly selected teachers in a Western state. The State Department of Education list of all licensed educators was used to draw the sample. During the spring semester of 1986, teachers were sent a letter explaining the nature of the study, a survey form, and a stamped return envelope. With two follow-ups, a total of 55[illegible] questionnaires were received, or 81% of the deliverable envelopes. (Twelve questionnaires were undeliverable, 4 persons refused, and 133 persons did not reply.)

The second sample was a convenience sample of three sections of an educational foundations class typically taken by college sophomores who have enrolled in a teacher preparation program (n=84). The course examines educational thought and practice in the United States. The classes were taught in an 8-week block, classes meeting for 50 minutes per day, four days per week. Survey forms were distributed in class and completed during class time.

The third sample was also a convenience sample of four sections of a tests and measurement class taken by college seniors (n=152). This course is typically taken prior to student teaching. The course provides instruction in some basic statistics, classroom test construction and analysis, and standardized test use and interpretation. This course was also taught in an 8-week block with the same schedule as the foundations course. Survey forms were distributed during the first week of class and completed during class time. Survey forms took from 10-30 minutes to complete. Responses were anonymous. Both sophomores and seniors were attending a public university in a small Western town.

Table 1 presents descriptive information for these three samples.

(Table 1 here)

Instruments

Three different forms with overlapping questions were used in this study. The survey form sent to the teachers contained questions regarding training in tests and measurement, subject and grades taught, tests given, and attitudes toward both standardized and classroom tests. It was two pages, double-sided, in length and contained 49 questions. The form given to the sophomores had 43 questions and was one page, double-sided, in length. The form given to the seniors was three pages in length, single-sided. The latter two forms differed by the inclusion of an evaluation anxiety scale and items eliciting importance of contemporary measurement practices for the seniors.

There were 18 items common to the three forms. Sixteen of these items were Likert items with a 1-6 (strongly disagree to strongly agree) response format. The remaining two items asked how many hours per week teachers spend in testing activities and how much of a students' grade should be based on test results. This study examined differences found among groups on these items. Item content is presented in Table 2. In this table, items are grouped by content (opinions about standardized tests, classroom tests, and about personal liking for tests).

(Table 2 here)

Data were analyzed using multivariate analyses of variance followed by univariate analyses of variance. If univariate results were significant, Tukey's HSD test was used to assess the significance of pairwise post hoc differences.

RESULTS

Significant multivariate differences were found across opinion items (Wilk's lambda = .70, $p<.001$) when the three samples were compared (Table 2). Hypothesis 1 was rejected. Differences were found between teachers and students for all items, with Type I error rates varying from .02 to .001 for individual items. Opinions were not consistently more positive across all items for teachers or for students. For instance, while teachers were most likely to feel that standardized tests address important educational outcomes, teachers were least likely to find that standardized tests serve a useful purpose. In general, though, teachers were less favorable to use of standardized tests for student or teacher evaluation than were students. While teachers were most likely to say they do well on tests and tests previously taken were good assessments of their ability, teachers were also the most likely to say they disliked taking tests. Teachers' opinions about classroom testing were more favorable than students' opinions for all but one item. Differences were also found between teachers and students in estimates of time spent in testing and in the percent of students' grades based on test scores.

Hypothesis 2 was not rejected. Only two differences were found between the sophomores and the seniors. One difference was found for the item "It is relatively easy to construct tests in my subject area." Since the seniors were required to complete a task involving test construction, their opinions may have been influenced by this impending course requirement. The second difference was found for the item "tests are of little value in identifying learning problems" with a more positive opinions expressed by seniors than by sophomores.

Hypothesis 3 was tested by dividing teachers into three groups: 0-1 years, 2-5 years, and 5+ years of experience as a teacher. No significant multivariate or univariate differences were found so hypothesis 3 could not be rejected. However, there were very few teachers with 0-1 years of experience in the sample. Due to the small number of teachers with 0-1 years of teaching, groups were reformed as: 0-3 years, 4-6 years, and 6+ years of experience. Still, no significant multivariate or univariate differences were found. (No differences were found between teachers with 0-3 years of experience and those with 6 or more years of experience either.)

DISCUSSION

The teachers sampled in this study reported spending an average of about 11% of their time in testing, which is consistent with estimates reported in the literature (of 10-15%). The average of 41% of students' grades based on test results is also consistent with estimates reported in the literature (of 40-50%). Estimates of the time needed for testing activities obtained from students sampled in this study were much higher (23 and 26% for seniors and sophomores, respectively) than teachers reports. Although students' estimates of the percent of grade based on test scores were significantly higher than those of teachers, they were within the range reported in the literature. Students, then, who lack an experiential base, seem to have exaggerated views regarding the time teachers spend on testing-related activities. But, beginning teachers also lack an experiential base. One might ask whether beginning teachers spend more time in testing-related activities than teachers with more experience since beginning teachers may not have files of tests to draw upon. In fact, mean reported time spent in testing was higher for first and second year teachers (means of 5.4 and 5.7 hours per week) than for teachers with more experience (mean for third year = 2.3, 4th year = 2.8, 5th year = 3.8).

Teachers were neutral to negative in their opinions regarding the use of standardized tests and had, on average, significantly more negative opinions than the two student samples. A potential explanation for these negative opinions may be that while students evaluate standardized tests on personal experience in taking tests and on conceptual grounds, teachers are required to give standardized tests and may react negatively to this imposition. (An estimated 71% of elementary teachers, 56% of middle level teachers, and 20% of high school teachers report giving standardized tests (Green, in press).) Also, several of the items used in this study reflect the use of standardized tests in teacher evaluation. Teachers may be less positive toward this use of tests because they are more intimately and potentially negatively affected; because they are more aware (via personal experience) of the limitations of standardized tests; or because they resist automatized, depersonalized evaluation techniques whether used with

students or themselves. Teachers' opinions, then, may come from greater personal experience in standardized test use.

Differences were also found between teachers and teacher education students for most classroom test items. This result is in contrast to that found by Reeves and Kazelskis (1985) who found no differences between similar groups. Their research was not concerned primarily with testing issues, however. Only one item in their study addressed assessment. The result of more favorable opinions of inservice than preservice teachers toward classroom testing may stem from the frequent use of tests by teachers versus the frequent taking of tests by students. Since most teachers rely to some extent on test results in assigning grades and in evaluating instruction, opinions may change to conform with this behavior. Opinions may also be influenced by the experiential understanding of testing gained by teachers in learning how informative test results can be. So the more favorable opinions of teachers about classroom testing may form as a result of job requirements that cause teachers to directly learn more about tests.

Since it is unlikely that the widespread use of classroom and standardized tests will diminish, teachers will continue to be called upon to use tests to make decisions which are important in the lives of students. It is necessary that teachers be competent in test construction and interpretation. However, if tests are to be used effectively as part of the instructional process, teachers need to perceive the positive aspects of test use. It is desirable that teachers communicate positive feelings about tests to their students. Teachers will probably be more likely to do so if they have positive opinions of tests themselves. While opinions of both teachers and students about classroom testing were generally positive, opinions about standardized testing were less positive. This difference may well reflect current realities of test use in teachers' (and students') lives.

REFERENCES

Boyd, J., McKenna, B.H., Stake, R.E., & Yachinsky, J. (1975). A study of testing practices in the Royal Oak (MI) public schools. Royal Oak, MI: Royal Oak City School District. (ERIC 117 161)

Carlberg, C. (1981). South Dakota study report. Denver, Co: Midcontinent Regional Educational Laboratory.

Cramer, S., & Slakter, M. (1968). A scale to assess attitudes toward aptitude testing. Measurement and Evaluation in Guidance, 1(2), .

Darling-Hammond, L., & Wise, A.E. (1985). Beyond standardization: State standards and school improvement. Elementary School Journal, 85, 315-336.

Fennessey, D. (1982). Primary teachers' assessment practices: Some implications for teacher training. Paper presented at the annual conference of the South Pacific Association for Teacher Education, Frankston, Victoria, Australia.

Goslin, D.A. (1967). Teachers and testing. New York: Russell Sage Foundation.

Green, K.E. (in press). Teachers and standardized testing of students. In Green, K.E. (Ed.), Educational testing: Issues and applications. New York: Garland.

Green, K.E., & Stager, S.F. (1986-87). Testing: Coursework, attitudes, and practices. Educational Research Quarterly, 11(2), 48-55.

Green, K.E., & Willliams, E.J. (1989, March). Standardized test use by classroom teachers: Effects of training and grade level taught. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco.

Gullickson, A.R. (1984). Teacher perspectives of their instructional use of tests. Journal of Educational Research, 77, 244-248.

Gullickson, A.R. (1982). The practice of testing in elementary and secondary schools. (ERIC ED 229391)

Gullickson, A.R., & Hopkins, K.D. (1987). The context of educational measurement instruction for preservice teachers: Professor perspectives. Educational Measurement: Issues and Practice, 6, 12-16.

Hogben, D. (1982). The clinical mind: Some implications for educational research and teacher training. South Pacific Journal of Teacher Education, 10(1), 1-8.

Karmos, A.h., & Karmos, J.S. (1984). Attitudes toward standardized achievement tests and their relation to acchievement test performance. Measurement and Evaluation in Counseling and Development, 17, 56-66.

Lazar-Morrison, C., Polin, L., Moy, R., & Burry, J. (1980). A review of the literature on test use. Los Angeles: Center for the Study of Evaluation, California State University. ERIC 204 411.

Lortie, D.C. (1975). School teacher: A sociological study. Chicago: University of Chicago Press.

Marso, R.N., & Pigge, F.L. (1988). Ohio secondary teachers' testing needs and proficiencies: Assessments by teachers, supervisors, and principals. American Secondary Education, 17, 2-9.

McKee, B.G., & Manning-Curtis, C. (1982, March). Teacher-constructed classroom tests: The stepchild of measurement research. Paper presented at the National Council on Measurement in Education annual conference, New York.

Newman, D.C., & Stallings, W.M. (1982). Teacher competency in classroom testing, measurement preparation, and classroom testing practices. Paper presented at the American Educational Research Association annual meeting. New York. (ERIC ED 220491)

Petty, M.F., & Hogben, D. (1980). Explorations of semantic space with beginning teachers: A study of socialization into teaching. British Journal of Teacher Education, 6, 51-61.

Reeves, C.K., & Kazelskis, R. (1985). Concerns of preservice and inservice teachers. Journal of Educational Research, 78, 267-271.

Ruddell, R.B. (1985). Knowledge and attitudes toward testing: Field educators and legislators. Reading Teacher, 38, 538-543.

Stetz, F.P., & Beck, M.D. (1979). Comments from the classroom: Teachers' and students' opinions of achievement tests. Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco.

Veenman, S. (1984). Perceived problems of beginning teachers. Review of Educational Research, 54, 143-178.

Yarbrough, D.W., & Riley, J.D. (October,1987). Myths and beliefs: A preliminary examination of preservice and inservice teachers. Paper presented at the annual meeting of the Northern Rocky Mountain Educational Research Association, Park City, Utah.

Table 1

Description of Samples

Item	Sophomores	Seniors	Teachers
n	84	152	553
Percent Female	73.0	75.9	63.6
Mean Age	21.5	24.2	30-39
Age Range	18-33	20-45	-
Mean Years in Teaching	-	-	12

Table 2

Opinions About Testing by Group

Variable	Sophomores	Seniors	Teachers	p	1	2	3
n	84	152	553				
Hours spent in testing/week	10.43	9.18	4.37	.001	*	*	-
Percent grade based on test	49.63	46.94	41.31	.001	*	*	-
Standardized Test Items:							
Standardized tests are the best way to evaluate a teacher's effectiveness.	2.79	2.83	2.12	.001	*	*	-
Teachers whose students score higher on standardized tests should receive higher salaries.	2.53	2.33	1.74	.001	*	*	-
Requiring students to pass competency tests would raise educational standards.	4.14	3.89	3.69	.01	*	*	-
Requiring teachers to pass competency tests would raise educational standards.	4.35	4.09	3.30	.001	*	*	-
Standardized tests assess important educational outcomes.	3.47	3.54	3.95	.001	*	*	-
Standardized tests serve a useful purpose.	4.02	3.97	2.93	.001	*	*	-
Standardized tests force teachers to "teach to the test."	3.05	2.74	3.11	.02	-	*	-
Classroom Test Items:							
Test construction takes too much teacher time.	4.57	4.36	3.97	.001	*	*	-
Test scores are a fair way to grade students.	3.42	3.32	4.04	.001	*	*	-
Testing has a favorable impact on student motivation.	4.00	3.88	4.16	.01	-	*	-
Tests are of little value in identifying learning problems.	1.76	1.43	1.44	.01	*	-	*
It is relatively easy to construct tests in my subject area.	4.11	3.51	4.35	.001	-	*	*
Tests measure only minor aspects of what students can learn.	2.92	3.01	3.24	.01	*	-	-
Personal Reflections:							
I do(did) well on tests.	4.05	4.00	4.46	.001	*	*	-
I personally dislike taking tests.	3.13	3.12	3.46	.01	-	*	-
The tests I have taken were generally good assessments of my knowledge of an area.	3.65	3.41	4.09	.001	*	*	-

Note. Scale was 1-6 for opinion items with 1=strongly disagree and 6=strongly agree. Asterisks (*) indicate significant ($p<.05$) differences between groups: 1=teachers vs. sophomores, 2=teachers vs. seniors, 3=sophomores vs. seniors.