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ABSTRACT

Testing program directors from approximately 100 randomly selected school districts in Ohio reported their perceptions of the testing competencies most needed to successfully manage their standardized testing programs and of the perceived value of their university training in developing these competencies. It was found that competencies associated with interpreting test scores, reporting test results to others, and general testing program administration were perceived as most needed by these directors. The value of university training was not highly regarded and was perceived by these directors as most lacking in developing skills associated with the general management of testing programs, in reporting test results, and in translating test results into instruction. The directors with and without training in guidance counseling and in testing and evaluation differed in their perceptions of testing directors' responsibilities such as encouraging district use of test results, and they differed in their perceptions of most needed testing related skills and of the value of university training in developing their testing related competencies. References and five statistical tables are included. (Author/LL)

# Training and Management Perceptions of Public School Testing Directors: Implications for Teacher Educators

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Abstract

Testing program directors from approximately 100 randomly selected school districts reported their perceptions of the testing competencies most needed to successfully manage their standardized testing programs and of the perceived value of their university training in developing these competencies. It was found that competencies associated with interpreting test scores, reporting test results to others, and general testing program administration were perceived as most needed by the directors. The value of university training was not highly regarded and was perceived by these directors as most lacking in developing skills associated with the general management of testing programs, reporting test results, and in translating test results to instruction. The directors with and without guidance counselor training and directors with more and those with less training in testing and evaluation differed in their perceptions of testing directors' responsibilities such as encouraging district use of test results, and they differed in their perceptions of testing related skills most needed and of the value of university training in developing their testing related competencies.

# Training and Management Perceptions of Public School Testing Directors: Implications for Teacher Educators

The accountability movement in education, with an accompanying proliferation of mandated testing, has increased public concerns about testing and the demands being placed upon directors of school testing programs (Cannell, 1988; Haney & Madaus, 1989; Kirst, 1991). Recent research findings, however, indicate that schools continue to place little emphasis on the management of standardized testing programs (Gullickson & Hopkins, 1987; Marso & Pigge, 1990) and that classroom teachers and other educators typically are not well trained in testing and evaluation (Diamond & Fremer, 1989; Ruddell, 1985; Stiggins, Conklin, & Bridgeford, 1986). Further, even though testing and evaluation is perceived by educators to have a profound effect upon the teaching and learning process (Crooks, 1988), there appears to be a weak and unclear linkage between testing and the instructional process in K-12 classrooms (Kinney, Brichell, & Linn, 1988; Tyler & Sheldon, 1979).

Relatively little is known about the training and specific responsibilities of individuals managing public school standardized testing programs. In one study addressing this lack of knowledge, Marso and Pigge (1990) found that many testing directors had no more formal training in testing than what would be expected for classroom teachers. Further they found that many testing directors reported not having responsibility for such essential testing program activities as encouraging the use of the results from testing or for being sure that the classroom teachers administering standardized tests are properly trained. In particular, information as to the exact role that testing directors play in facilitating the partnership between standardized testing and the curricular-instructional process is very limited. For example, the measurement research literature provides scant information about questions such as, do testing directors perceive a need or responsibility for enhancing the integration of testing and instruction, or does the amount or the nature of university training in testing and evaluation influence testing program directors' perceptions of their responsibilities related to the formation of a positive linkage between testing and instruction?

The present study was designed to ascertain testing directors' perceptions of the testing related skills and responsibilities that are most needed to manage standardized testing programs and of the value of their university training in developing these competencies. More specifically, the following questions were addressed in the study: 1) What testing related skills do testing directors perceive to be most needed to successfully meet their testing program management responsibilities? 2) For what testing related skills do the directors perceive university classes to have been of more and of less value in developing their present testing competencies? 3) Do testing directors with guidance and counseling training differ from those without guidance counselor training in their perceptions of testing skills or responsibilities most needed to manage their testing programs? 4) Do testing directors with more training in testing and evaluation differ from those with less training in their perceptions

of the testing skills or responsibilities needed to manage their testing programs? 5) Is the nature or extent of testing directors' training associated with their perceptions of the extent to which their university training was of value in developing their testing competencies needed to manage their testing programs?

## Methods and Procedures

The data gathered for this paper was one component of a larger state-wide assessment of the management and operation of public school standardized group testing programs in Ohio. In the initial stage of sample selection all 616 superintendents of nonvocational public school districts were contacted regarding their willingness to participate in an extensive investigation of standardized testing practices and of the uses of standardized testing results by classroom teachers, administrators, and testing directors. This inquiry resulted in 171 superintendents indicating a willingness to have their school districts participate in the study.

From the 171 school districts whose superintendents expressed a willingness to participate in the study, 106 districts were randomly selected using types of administrative organization (city, county local, and exempted village) of the school districts as strata in the selection process. Of these 106 randomly selected districts, 97 districts (92%) ultimately did participate in the study. Not all of these school districts, however, were able to participate in all components of the study, for some of the districts reported not having an employee who had been formally designated as the director of their standardized testing programs, and a few of the county local school districts reported that their standardized testing programs were managed through their county offices of education.

For this particular phase of the study, survey assessment instruments were mailed directly to the participating superintendents who in turn were asked to forward a sealed packet of materials to the individual designated as director of their school districts' standardized testing program. The survey respondents from the 97 participating districts who, themselves, did not indicate being formally designated as the director of their school district's standardized testing program were excluded from this phase of the study. This procedure resulted in usable responses from 82 (85%) testing directors who had been designated as such by their school superintendent and who, themselves, confirmed this designation. These 82 "confirmed" testing directors rated 17 testing related competencies or responsibilities on Likert-type, five-point scales relative to their perceptions of the need for these competencies in meeting their testing program responsibilities and relative to their perceptions of the extent to which their university training had been of value in their development of these competencies.

The 17 testing related competencies rated by the testing directors were compiled from a review of measurement and evaluation textbooks addressing the use of standardized tests in education (e.g., Mehrens & Lehmann, 1987) and from Ohio State Department of Education

guidelines for the evaluation of public school pupil personnel programs. These items encompassed competencies associated with handling data from tests, interpreting test scores, selecting high quality tests, training and assisting others involved in the testing process, helping teachers or curricular coordinators translate test results into instructional plans, maintaining pupil records, and managing various aspects of the testing program. Competency item number three with accompanying job need scale and value of training scale, response codes, and respondent directions follows for illustration. The complete listing of the 17 competency items are presented in Table 1.

Please rate both the need for these competencies to successfully meet your testing program related responsibilities and the value of your formal college classes in developing these competencies by circling the numbers as defined in the following response code.

Response Code

| Job Need | | Value of Classes | |
|---|---|---|---|
| '1' | Little or no need | '1' | Little or no value |
| '2' | Some need | '2' | Somewhat helpful |
| '3' | About average need | '3' | About average helpfulness |
| '4' | Very important need | '4' | Above average helpfulness |
| '5' | Essential to job | '5' | Very helpful |

| Competencies | Job Need | | | | | Value of Classes | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Low | | | | High | Low | | | | High |
| 3. Reading and using test manuals | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |

The responses of the testing directors to the 17 selected testing related competencies were analyzed for the total group of directors and for two subgroup classifications of the directors. The subgroup classifications of the directors were formed by nature of training, having been trained as guidance counselors (n = 37) or not having been trained as guidance counselors (n = 45), and by extent of university training in tests and measurements, having completed two or fewer formal classes (n = 26) or having completed three or more formal classes (n = 54). Two of the testing directors did not report the number of testing classes they had completed, and thus they were excluded from these particular analyses.

The means and standard deviations of the respondents' responses to the skills needed and the training value scales for each of the 17 testing competencies were calculated for the total group of the directors and for each of the two directors' training classifications. Differences between each pair of scale item rating means for the two directors' training classifications were assessed for statistical significance using independent t tests. The rating means were also rank ordered (highest means were assigned a rank of '1') for the total group of directors and for their two training classifications. Spearman Rho coefficients of correlation were calculated between the two sets of competency rating rank orders formed from the with and

without counselor training and the more and less training classifications of the directors.

## Findings

The testing directors rated the need for all but two of the 17 testing competencies above the average of '3' on the skills needed scale. Conversely, the directors rated the value of college training in developing these testing competencies as being below average in helpfulness (below '3') on the training value scale for all but three of the 17 competencies. Very clearly the directors rated more of the 17 competencies on the training value scale lower than they rated these same competencies on the skills needed scale ($X^2 = 14.3$, $p < .001$). The average of the 17 competency rating means for these two scales were 2.64 and 3.80, respectively, as shown in Table 1. Just for a single competency, statistical calculations, were the directors' ratings of the value of their college training in developing that competency higher than were their ratings of the need for that competency.

- - - - - - - - - - - - - - -
Insert Table 1 about here
- - - - - - - - - - - - - - -

The need for testing competencies related to the follow-up evaluations of graduates (item #16) and the coordination of college admission testing (item #17) were the only two testing competencies rated below the need scale average (means of 2.86 and 2.56, respectively) of '3.' Similarly, these two testing competencies were rated lowest on the training value scale resulting in ranks of 16 and 17 for these two competencies, respectively, for both the need and value scales. The three testing related competencies with highest need scale rating means were item number two: interpreting test scores ($M = 4.45$), item number 4: reporting test results ($M = 4.46$), and item number 15: general administration of the testing program ($M = 4.33$). The three testing related competencies rated highest for the training value scale were item number two: interpreting test scores ($M = 3.53$) which was also rated highest on the need scale, item number one: statistical calculations ($M = 3.37$), and item number 10: assessing test reliability and validity ($M = 3.04$). These three testing related competencies also were the only three testing competencies rated above the scale average of '3' or higher rating on the college training value scale.

Indicative of the directors' low regard for the value of their university classes, only one of the three testing competencies receiving high ratings on the training value scale were rated by the directors as being highly needed to successfully meet their testing program responsibilities. This single competency which received both high need and high training value ratings by the directors was item number two, interpreting test scores. This item received the directors' highest ratings on both the need and training value scales. The other two competencies among the three highest training value ratings received need rank orders of 15, item number one: statistical

calculations, and of 13, item number 10: assessing reliability and validity.

The competencies revealing the largest rating mean discrepancies between perceived need and value of training (i.e., a competency where the value of college training was rated much lower than was the need for that competency) were item number 15: general administration of the testing program (M's of 4.33 and 2.45), item number four: reporting test results (M's of 4.36 and 2.64), item number seven: assisting teachers in translating test results to instruction (M's of 3.96 and 2.29), item number eight: assisting principals/supervisors in translating test results to curricular and staff development (M's of 4.04 and 2.45), and item number nine: selecting tests to meet school needs (M's of 4.15 and 2.63).

Those competencies where the need mean minus training mean discrepancy was smallest or where training value exceeded need ratings (i.e., Where training appeared to be more than adequate relative to the need for a particular testing related competency.) were item number one: statistical calculations (M's of 3.28 and 3.37), item number 10: assessing test reliability and validity (M's of 3.41 and 3.04), and item number three: reading and using test manuals (M's of 3.92 and 2.85). Further evidence of the discrepancy between the testing directors' perceptions of the need for competencies and the value of their training in developing these testing competencies is suggested by a nonsignificant Spearman Rho coefficient of +.45 ($p = .06$) between the rank orders of the rating means for these two scales.

The analysis of the ratings when the respondents were classified by extent of formal training in testing and evaluation revealed that those testing directors having completed more courses rated the value of their college training higher than did those directors with less training. This difference was noted on each of the 17 competencies with a total scale mean of 2.16 for the less well trained directors and of 2.86 for the more well trained directors as reported in Table 2. The data reported in Table 2 also reveal that the rating mean differences between the more and less well trained directors were significantly different at the $p < .05$ level of confidence for 15 of the 17 competencies. It can be noted from the rank ordering of these two sets of means, however, that the more and the less well trained directors did perceive the merits of their college training in developing these testing competencies in relatively the same way as indicated by a very high and positive Spearman Rho coefficient of +.95 ($p < .001$) between these two sets of ranks. In other words, there was high relative agreement between the more and less well trained directors regarding their perceptions of those testing competencies for which their college training had been of high or low value in developing their testing competencies.

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Insert Table 2 about here
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In contrast to the many statistically significant mean differences noted between the testing directors with more and less training in their ratings of the value of their college training, the more and less well trained directors were in substantial agreement in their ratings of the need of the 17 testing competencies for meeting their testing program responsibilities. None of the need rating means for the 17 competencies revealed a statistically significant difference between the more and less well trained testing directors with $p < .05$ although the mean differences for the ratings of the need for interpretation of scores (item #2), for identification of students needing attention (item #12), and for coordination of college admission testing (item #17) approached statistical significance. Further, the rank orders of these two sets of rating means are also very similar as indicated by a high and positive Spearman Rho coefficient of +.87 ($p < .001$) as shown in Table 3. This would suggest that these two groups of testing directors agreed one with the other regarding which of the 17 testing program competencies were more or less needed in fulfilling their testing responsibilities although they perceived the value of their college training in developing these competencies very differently.

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Insert Table 3 about here
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The analysis of the testing directors' ratings of the value of their university training in their developing the 17 testing competencies when classified by the nature of their training (Table 4) revealed a pattern of differences somewhat similar to the pattern of differences revealed by the extent of training classification. Namely, differences were noted between the levels of the directors' ratings on the training value scale, overall scale means of 2.80 and 2.49 respectively for those with counselor training and for those without this training, but no differences were identified on the need scale (Table 5), overall scale means of 3.71 and 3.88 respectively for these two groups. This pattern, however, was not as consistent for this classification of directors' training as it was for their extent of training classification.

For 16 of the 17 testing competencies on the value scale (Table 4), those testing directors with training in guidance and counseling (like the directors with more training in testing) rated the value of their college classes higher than did those directors not having completed guidance and counseling training. These differences, however, were significant with $p < .05$ for just four competencies: assisting teachers in instruction (item #7), selecting tests (item #9), maintenance of records (item #11), and coordination of college admission testing. The mean difference for reporting test results (item #4) also approached statistical significance. The pattern of higher ratings of the value of college training on 16 of the 17 competencies, nevertheless, is not likely to be a pattern resulting from a chance occurrence ($X^2 = 13.23$, $p < .001$). Like the extent of training classification the rank orders of these two sets of means on the educational value scale are very similar as shown on Table 4 and

as indicated by a high and positive Spearman Rho coefficient of +.86 ($p < .001$).

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Insert Table 4 about here
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The responses of the testing directors with and without guidance and counseling training to the job need scale as already noted revealed little or no difference between the two groups. As noted in Table 5, the overall scale mean of 3.71 for the directors with guidance training is somewhat below the overall scale mean of 3.88 for the directors without guidance training. Of the three items revealing differences on this scale with $p < .05$, the mean rating of the testing directors with guidance training is higher than those without this training for the need coordination of college admissions competency (item #17), but the directors with guidance training rated lower than those directors without this training the need for the compentencies of assisting principals and supervisors relative to curricular implications (item #8) and of the assessment of curricular/pupil progress (item #13). The agreement of the testing directors with and without guidance training in their ratings of the need for the 17 competencies is further revealed by the ranking of the rating means and by the high and positive Spearman Rho coefficient of +.83 ($p < .001$) as reported in Table 5.

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Insert Table 5 about here
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## Summary and Discussion

The 82 testing program directors responding to the survey rated relatively high their perceptions of their need for the 17 selected testing competencies in meeting their testing program responsibilities. Conversely, the directors rated relatively low their perceptions of the value of their college classes in developing the 17 selected testing competencies. The testing directors with guidance and counseling training and those with more university training in testing and evaluation rated somewhat higher the value of their college classes in developing the 17 selected testing competencies than did those directors without counseling training and those with less training in testing and evaluation. The directors with more compared to those with less training in testing and evaluation and those with and without counselor training, nevertheless, agreed rather highly one with the other in their relative ratings about which of the 17 selected competencies were more or less needed for meeting their testing program responsibilities and about which of the 17 competencies their college training was of more or less value in their developing these skills.

The total group of testing directors rated their level of need about average or higher for 15 of the 17 selected testing competencies when meeting their testing program responsibilities, but they rated

the value of their college training below average in developing 15 of 17 of these competencies. Just for two competencies, the follow-up of school graduates and the coordination of college admission testing, did the directors rate below average their need for the competencies in meeting their job responsibilities; in contrast the directors rated above average the value of their college classes in developing their testing competencies for just two of the 17 selected competencies, statistical calculations and interpreting various test scores.

The testing directors with more university training in testing and evaluation compared to those with less training rated higher the value of their college classes for 15 of the 17 selected competencies, but these two groupings of the directors did not differ significantly ($p < .05$) in their mean ratings of the need for any of the 17 competencies in meeting their job responsibilities. The ratings on the need and value scales by the testing directors with and without counselor training revealed a pattern similar to, but less distinct than was the ratings of the more and less well trained directors. The directors with counselor training as compared to those without this training rated the value of their college classes somewhat higher than did the directors without guidance and counseling training, and the directors with counselor training rated somewhat lower (but very modestly so) their need for the various testing related competencies in meeting their job responsibilities.

One positive finding of the present study was that those testing directors with more university testing and evaluation classes attributed more value to their college training in the development of their testing related competencies. The nature of the data collected does not, however, clearly reveal whether this difference reflects an overall difference between the two groups in valuing college training or whether the perceived differences are limited to just their perceptions of the value of their testing and evaluation classes.

Less positively, the data gathered in this study suggest that more training in testing and evaluation did not change the testing directors' perceptions of the need for the various 17 selected testing related competencies. One would hope that additional college training in testing would further increase testing directors' perceptions of the need for competencies associated with the instructional and related uses of the results from standardized testing. This finding appears even more troublesome in conjunction with the finding from a previous study that many testing directors report not being responsible for encouraging teacher and staff uses of the results from standardized testing (Marso & Pigge, 1990).

Fewer significant differences appeared between the ratings of the testing directors with and without guidance and counselor training compared to the number of differences noted between the ratings of directors with more and less university training in testing. Just four of the 17 selected competencies revealed significant value rating mean differences ($p < .05$) for the counselor/no counselor training classification of the directors. The identified pattern of mean differences suggests that counselor trained directors, like directors

having completed more university testing and evaluation classes, more highly value the contribution of college classes in the development of their testing competencies.

The classification of directors with and without counselor training, unlike the extent of university testing and measurement training classification of the directors, revealed some significant differences ($p < .05$) between mean ratings of need for the 17 selected testing competencies. Those directors with guidance counselor training perceived less of a need for competencies related to assisting principals/supervisors in translating test results to curriculum/staff needs and for the assessment of curricular/pupil progress, but they perceived more need for competencies related to the coordination of college admission testing compared to their cohorts without counselor training. One plausible explanation for these differences is that the directors may have been influenced by variations in their specific job responsibilities rather than by the differences in training, for the testing directors with counselor training more frequently reported having counseling responsibilities along with their responsibilities as testing directors. The directors, also being counselors, might than be expected to rate higher the need for the coordination of college admission testing as this is a typical counselor job function. Conversely, those testing directors not reporting having counselor responsibilities more frequently reported having curriculum related responsibilities (e.g., directors of curriculum or teacher supervision) in addition to their testing program responsibilities. The directors, also having an instructional supervision function, might than be expected to rate higher the need for assisting principals and supervisors related to translating test results into curriculum plans and for the assessment of curricular/ program progress.

In summation, the findings from the present study lend some support for the following generalizations or implications: 1) Testing directors do not place high value upon the contributions of college classes in their development of those testing related competencies needed for successfully meeting testing program management responsibilities. 2) Testing directors with more university training in tests and measurements appear to attribute more value to the contribution college classes in the development of their testing related competencies than do their cohorts with less university training. 3) Testing directors with guidance and counseling training, compared to those without this training, appear to attribute somewhat more value to the contribution college classes in development of competencies needed for successfully meeting their testing program management responsibilities. 4) Neither more nor less training in tests and measurement nor having or not having training in guidance and counseling appear to have differing major influences upon test directors' perceptions of the need for various testing competencies in successfully meeting their testing program management responsibilities. 5) University instructors of testing related courses taken by pupils planning to become counselors/testing directors may need to review the focus and/or content of their courses to better meet the needs of those responsible for managing K-12 school

standardized testing programs: a) Of the 15 testing competencies rated by the testing directors as being highly needed for meeting their testing program responsibilities, the value of college training in developing these competencies was rated high for just three. Conversely, two of the three competencies rated by the testing directors as being most influenced by college classes were rated by the directors as having a low need in meeting their job responsibilities. c) Neither counselor training nor the completion of additional university testing and evaluation classes appear to enhance testing directors' perceptions of the need for an increased emphasis on the uses of test results in school settings. On the other hand, many feel that limited use of test results is the single major shortcoming of many school testing programs (Mehrens & Lehmann, 1987). d) On a more positive note, the revision course content for the preparation of individuals who manage school standardized testing programs might demand no more than a change in topic focus, for the testing directors rated highly the need for all but two of the 17 testing competencies which were selected from textbooks addressing the management of standardized testing and from Ohio Department of Education guidelines related to the functioning of school pupil personnel programs.

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## References

Cannell, J. J. (1988). Nationally normed elementary achievement testing in America's public schools: How all 50 states are above national average. Educational Measurement Issues and Practices, 7, 5-9.

Crooks, T. J. (1988). The impact of classroom evaluation practices on students. Review of Educational Research, 58, 438-481.

Diamond, E. E., & Fremer, J. (1989). The joint committee on testing practices and the code of fair testing practices in education. Educational Measurement: Issues and Practices, 8, 23-27.

Haney, W., & Madaus, G. (1989). Searching for alternatives to standardized tests: Whys, whats, and withers. Phi Delta Kappan, 70, 683-688.

Kinney, D., Brickell, J., & Lynn, M. A. (1988). Testing programs in Illinois elementary school districts: The relationships between standardized achievement, competency-based, and teacher-made tests. Paper presented at the American Education Research Association annual meeting, New Orleans.

Kirst, M. (1991). Interviews on assessment issues with Lorrie Shepard and James Popham. Educational Researchers, 20, 21-27.

Marso, R. N., & Pigge, F. L. (1990). Training, job titles, and responsibilities of directors of public school standardized testing programs. A paper presented at the National Council for Measurement n Education. (ERIC Document ED 320 940).

Mehrens, W. A., & Lehmann, I. J. (1987). Using standardized tests in education (4th ed.). White Plains, New York: Longman, Inc.

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

Stiggins, R. J., Conklin, N. F., & Bridgeford, N. J. (1986). Classroom assessment: A key to effective education. Educational Measurement: Issues and Practices, 5, 5-17.

Tyler, R. W., & Sheldon, H. W. (1979). Testing, teaching, and learning. Report of a Conference on Research on Testing. Washington, D.C.: National Institute of Education.

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Table 1

Testing Directors' Ratings of the Need for Testing Competencies and of College Class Value in Developing these Testing Competencies: Rating Means, Mean Ranks and Mean Difference Ranks

| | Competencies | Job Need $\bar{X}$ | Rank | Class Value $\bar{X}$ | Rank | Rank* Difference | $\bar{X}$ Difference Rank |
|---|---|---|---|---|---|---|---|
| 1. | Statistical calculations: means, standard deviations converting scores, correlation, standard error, etc. | 3.28 | 15 | 3.37 | 2 | +13.0 | 17 |
| 2. | Interpreting various types of scores: IQ, stanines, percentile ranks, grade equivalents, NCEs, etc. | 4.45 | 1 | 3.53 | 1 | 0.0 | 11 |
| 3. | Reading and using test manuals | 3.92 | 11 | 2.85 | 6 | +5.0 | 15 |
| 4. | Reporting test results to pupils, teachers, and parents | 4.36 | 2 | 2.64 | 7 | -5.0 | 2 |
| 5. | Determining when two scores are sufficiently different to warrant attention | 4.20 | 4 | 2.94 | 4.5 | -0.5 | 8 |
| 6. | Supervision of teachers administering tests | 3.35 | 14 | 2.24 | 15 | -1.0 | 7 |
| 7. | Assisting teachers in translating test results into instructional plans | 3.96 | 10 | 2.29 | 14 | -4.0 | 4 |
| 8. | Assisting principals and supervisors in translating results into curriculum/staff development plans | 4.04 | 7 | 2.45 | 11.5 | -4.5 | 3 |
| 9. | Selecting tests to meet school needs | 4.15 | 5 | 2.63 | 8.5 | -3.5 | 5 |
| 10. | Assessing test relisbility and validity and conveying importance to others | 3.41 | 13 | 3.04 | 3 | +10.0 | 16 |
| 11. | Maintenance of official test records and monitoring access, etc. | 3.65 | 12 | 2.41 | 13 | -1.0 | 9 |
| 12. | Identification of students via group testing who may need special attention | 4.05 | 6 | 2.94 | 4.5 | +1.5 | 14 |
| 13. | Assessment of school/curriculum/program/student progress | 4.01 | 8 | 2.60 | 10 | -2.0 | 6 |
| 14. | Working with other testing specialists: special education, reading, school psychologists in screening and placement of students with problems | 3.99 | 9 | 2.63 | 8.5 | +0.5 | 13 |
| 15. | General administration of the total testing program | 4.33 | 3 | 2.45 | 11.5 | -8.5 | 1 |
| 16. | Follow-up evaluations of the school's graduates | 2.86 | 16 | 2.02 | 16 | 0.0 | 11 |
| 17. | Coordination of college admission testing (ACT and/or SAT testing) | 2.56 | 17 | 1.93 | 17 | 0.0 | 11 |
| | Mean Average | 3.80 | | 2.64 | | | |
| | Spearman Rho | +.45 (p = .06) | | | | | |

*Rank order of need mean minus rank order of value mean where negative values are considered a larger difference than positive values.

Table 2

More and Less Trained Testing Directors' Ratings of the Value of College Classes in Developing Their Testing Competencies: Rating Means, Standard Deviations, Mean Ranks, and Mean Difference t Values

| | | (N=26) Less Training | | | (N=54) More Training | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Competencies | $\bar{X}$ | SD | $\bar{X}$ Rank | $\bar{X}$ | SD | $\bar{X}$ Rank | t | p |
| 1. | Statistical calculations: means, standard deviations converting scores, correlation, standard error, etc. | 3.08 | 1.26 | 1 | 3.52 | 1.18 | 2 | 1.53 | .13 |
| 2. | Interpreting various types of scores: IQ, stanines, percentile ranks, grade equivalents, NCEs, etc. | 2.96 | 1.15 | 2 | 3.81 | 1.25 | 1 | 2.94 | .00 |
| 3. | Reading and using test manuals | 2.35 | 1.41 | 4.5 | 3.09 | 1.21 | 6 | 2.44 | .02 |
| 4. | Reporting test results to pupils, teachers, and parents | 2.04 | 1.04 | 10 | 2.89 | 1.24 | 7.5 | 3.02 | .00 |
| 5. | Determining when two scores are sufficiently different to warrant attention | 2.35 | 1.29 | 4.5 | 3.25 | 1.22 | 5 | 3.01 | .00 |
| 6. | Supervision of teachers administering tests | 1.88 | 1.03 | 14 | 2.38 | 1.06 | 15 | 1.96 | .05 |
| 7. | Assisting teachers in translating test results into instructional plans | 1.85 | .93 | 15 | 2.48 | 1.13 | 14 | 2.49 | .02 |
| 8. | Assisting principals and supervisors in translating results into curriculum/staff development plans | 2.04 | 1.08 | 10 | 2.65 | 1.15 | 11 | 2.26 | .03 |
| 9. | Selecting tests to meet school needs | 2.08 | 1.29 | 7 | 2.81 | 1.18 | 10 | 2.52 | .02 |
| 10. | Assessing test reliability and validity and conveying importance to others | 2.46 | .99 | 3 | 3.30 | 1.25 | 3 | 2.98 | .00 |
| 11. | Maintenance of official test records and monitoring access, etc. | 1.96 | 1.06 | 13 | 2.57 | 1.04 | 13 | 2.43 | .02 |
| 12. | Identification of students via group testing who may need special attention | 2.23 | 1.07 | 6 | 3.28 | 1.12 | 4 | 3.97 | .00 |
| 13. | Assessment of school/curriculum/program/student progress | 2.04 | 1.11 | 10 | 2.87 | .93 | 9 | 3.51 | .00 |
| 14. | Working with other testing specialists: special education, reading, school psychologists in screening and placement of students with problems | 2.04 | 1.11 | 10 | 2.89 | 1.16 | 7.5 | 3.11 | .00 |
| 15. | General administration of the total testing program | 2.04 | 1.08 | 10 | 2.63 | 1.22 | 12 | 2.11 | .04 |
| 16. | Follow-up evaluations of the school's graduates | 1.58 | .81 | 17 | 2.23 | 1.10 | 17 | 2.69 | .01 |
| 17. | Coordination of college admission testing (ACT and/or SAT testing) | 1.69 | 1.05 | 16 | 2.04 | 1.03 | 16 | 1.39 | .17 |
| | Mean Average | 2.16 | | | 2.86 | | | | |
| | Spearman Rho | +.95 ($p < .001$) | | | | | | | |

Table 3

More and Less Trained Testing Directors' Ratings of the Need for Testing Competencies: Rating Means, Standard Deviations, Mean Ranks, and Mean Difference t Values

| | Competencies | (N=26) Less Training $\bar{X}$ | SD | $\bar{X}$ Rank | (N=54) More Training $\bar{X}$ | SD | $\bar{X}$ Rank | t | p |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Statistics calculations: means, standard deviations converting scores, correlation, standard error, etc. | 3.00 | 1.17 | 15.5 | 3.46 | 1.22 | 15 | 1.61 | .11 |
| 2. | Interpreting various types of scores: IQ, stanines, percentile ranks, grade equivalents, NCEs, etc. | 4.31 | .68 | 2.5 | 4.61 | .74 | 1 | 1.77 | .08 |
| 3. | Reading and using test manuals | 3.92 | 1.09 | 10 | 4.00 | 1.05 | 10 | 0.30 | .76 |
| 4. | Reporting test results to pupils, teachers, and parents | 4.38 | .80 | 1 | 4.41 | .92 | 3 | 0.11 | .91 |
| 5. | Determining when two scores are sufficiently different to warrant attention | 4.31 | .68 | 2.5 | 4.21 | .93 | 6 | 0.49 | .63 |
| 6. | Supervision of teachers administering tests | 3.08 | 1.32 | 14 | 3.52 | 1.19 | 13.5 | 1.50 | .14 |
| 7. | Assisting teachers in translating test results into instructional plans | 4.12 | 1.28 | 7 | 3.96 | .97 | 11 | 0.59 | .56 |
| 8. | Assisting principals and supervisors in translating results into curriculum/staff development plans | 4.19 | 1.13 | 5.5 | 4.09 | .81 | 7 | 0.45 | .65 |
| 9. | Selecting tests to meet school needs | 4.04 | 1.18 | 8 | 4.24 | .78 | 4.5 | 0.92 | .36 |
| 10. | Assessing test reliability and validity and conveying importance to others | 3.31 | 1.19 | 13 | 3.52 | 1.13 | 13.5 | 0.77 | .45 |
| 11. | Maintenance of official test records and monitoring access, etc. | 3.73 | 1.22 | 12 | 3.65 | .96 | 12 | 0.33 | .74 |
| 12. | Identification of students via group testing who may need special attention | 3.81 | 1.02 | 11 | 4.24 | .93 | 4.5 | 1.89 | .06 |
| 13. | Assessment of school/curriculum/program/student progress | 4.19 | .94 | 5.5 | 4.04 | .91 | 8 | 0.71 | .48 |
| 14. | Working with other testing specialists: special education, reading, school psychologists in screening and placement of students with problems | 4.00 | .98 | 9 | 4.02 | 1.00 | 9 | 0.08 | .94 |
| 15. | General administration of the total testing program | 4.23 | .77 | 4 | 4.46 | .72 | 2 | 1.32 | .19 |
| 16. | Follow-up evaluations of the school's graduates | 2.96 | 1.51 | 17 | 2.87 | 1.30 | 16 | 0.28 | .78 |
| 17. | Coordination of college admission testing (ACT and/or SAT testing) | 3.00 | 1.58 | 15.5 | 2.36 | 1.27 | 17 | 1.94 | .06 |
| | Mean Average | 3.80 | | | 3.86 | | | | |
| | Spearman Rho | +.87 ($p < .001$) | | | | | | | |

Table 4

Testing Directors With and Without Counselor Training Ratings of the Value of College Classes in Developing Their Testing Competencies: Rating Means, Standard Deviations, Mean Ranks, and Mean Difference t Values

| | Competencies | (N=37) Counselor Training $\bar{X}$ | SD | $\bar{X}$ Rank | (N=45) No Counselor Training $\bar{X}$ | SD | $\bar{X}$ Rank | t | p |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Statistical calculations: means, standard deviations converting scores, correlation, standard error, etc. | 3.35 | .98 | 2 | 3.38 | 1.44 | 2 | .10 | .92 |
| 2. | Interpreting various types of scores: IQ, stanines, percentile ranks, grade equivalents, NCEs, etc. | 3.59 | 1.21 | 1 | 3.47 | 1.38 | 1 | .44 | .66 |
| 3. | Reading and using test manuals | 2.86 | 1.25 | 8 | 2.84 | 1.43 | 5 | .06 | .96 |
| 4. | Reporting test results to pupils, teachers, and parents | 2.89 | 1.20 | 7 | 2.38 | 1.25 | 10 | 1.89 | .06 |
| 5. | Determining when two scores are sufficiently different to warrant attention | 3.11 | 1.26 | 3.5 | 2.76 | 1.35 | 6 | 1.21 | .23 |
| 6. | Supervision of teachers administering tests | 2.38 | 1.06 | 15 | 2.09 | 1.10 | 14 | 1.19 | .24 |
| 7. | Assisting teachers in translating test results into instructional plans | 2.54 | .96 | 13.5 | 2.04 | 1.17 | 15 | 2.07 | .04 |
| 8. | Assisting principals and supervisors in translating results into curriculum/staff development plans | 2.65 | 1.03 | 11.5 | 2.24 | 1.23 | 11 | 1.59 | .12 |
| 9. | Selecting tests to meet school needs | 3.08 | 1.18 | 5 | 2.18 | 1.23 | 12 | 3.35 | .00 |
| 10. | Assessing test reliability and validity and conveying importance to others | 3.11 | 1.15 | 3.5 | 2.96 | 1.35 | 3 | .54 | .59 |
| 11. | Maintenance of official test records and monitoring access, etc. | 2.65 | .95 | 11.5 | 2.16 | 1.16 | 13 | 2.05 | .04 |
| 12. | Identification of students via group testing who may need special attention | 3.00 | 1.20 | 6 | 2.87 | 1.24 | 4 | .49 | .62 |
| 13. | Assessment of school/curriculum/program/student progress | 2.73 | .90 | 10 | 2.47 | 1.18 | 8 | 1.11 | .27 |
| 14. | Working with other testing specialists: special education, reading, school psychologists in screening and placement of students with problems | 2.76 | 1.12 | 9 | 2.49 | 1.29 | 7 | .99 | .32 |
| 15. | General administration of the total testing program | 2.54 | 1.28 | 13.5 | 2.36 | 1.15 | 9 | .69 | .49 |
| 16. | Follow-up evaluations of the school's graduates | 2.14 | 1.27 | 17 | 1.89 | .81 | 17 | 1.08 | .28 |
| 17. | Coordination of college admission testing (ACT and/or SAT testing) | 2.17 | 1.11 | 16 | 1.68 | .93 | 16 | 2.12 | .04 |
| | Mean Average | 2.80 | | | 2.49 | | | | |
| | Spearman Rho | +.86 ($p < .001$) | | | | | | | |

Table 5

Testing Directors With and Without Counselor Training Ratings of the Need for Testing Competencies: Rating Means, Standard Deviations, Mean Ranks, and Mean Difference t Values

| | Competencies | (N=37) Counselor Training $\bar{X}$ | SD | $\bar{X}$ Rank | (N=45) No Counselor Training $\bar{X}$ | SD | $\bar{X}$ Rank | t | p |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Statistical calculations: means, standard deviations converting scores, correlation, standard error, etc. | 3.14 | 1.25 | 15 | 3.42 | 1.18 | 14 | 1.07 | .29 |
| 2. | Interpreting various types of scores: IQ, stanines, percentile ranks, grade equivalents, NCEs, etc. | 4.32 | .92 | 1 | 4.58 | .72 | 1 | 1.40 | .17 |
| 3. | Reading and using test manuals | 3.70 | 1.31 | 9.5 | 4.13 | .84 | 9 | 1.80 | .08 |
| 4. | Reporting test results to pupils, teachers, and parents | 4.22 | 1.03 | 3 | 4.49 | .76 | 2 | 1.38 | .17 |
| 5. | Determining when two scores are sufficiently different to warrant attention | 4.17 | .88 | 4 | 4.22 | .90 | 7 | .28 | .78 |
| 6. | Supervision of teachers administering tests | 3.51 | 1.28 | 13 | 3.18 | 1.25 | 15 | 1.20 | .24 |
| 7. | Assisting teachers in translating test results into instructional plans | 3.73 | 1.12 | 8 | 4.18 | 1.07 | 8 | 1.84 | .07 |
| 8. | Assisting principals and supervisors in translating results into curriculum/staff development plans | 3.70 | 1.00 | 9.5 | 4.38 | .83 | 3 | 3.34 | .00 |
| 9. | Selecting tests to meet school needs | 4.03 | .96 | 6 | 4.27 | .94 | 6 | 1.14 | .26 |
| 10. | Assessing test reliability and validity and conveying importance to others | 3.24 | 1.23 | 14 | 3.58 | 1.10 | 13 | 1.30 | .20 |
| 11. | Maintenance of official test records and monitoring access, etc. | 3.62 | 1.06 | 12 | 3.67 | 1.09 | 12 | .19 | .85 |
| 12. | Identification of students via group testing who may need special attention | 4.05 | 1.05 | 5 | 4.04 | 1.02 | 10 | .04 | .97 |
| 13. | Assessment of school/curriculum/program/student progress | 3.68 | 1.03 | 11 | 4.33 | .80 | 5 | 3.26 | .00 |
| 14. | Working with other testing specialists: special education, reading, school psychologists in screening and placement of students with problems | 4.00 | 1.05 | 7 | 3.98 | 1.03 | 11 | .10 | .92 |
| 15. | General administration of the total testing program | 4.30 | .78 | 2 | 4.36 | .88 | 4 | .31 | .76 |
| 16. | Follow-up evaluations of the school's graduates | 2.78 | 1.49 | 17 | 2.93 | 1.27 | 16 | .48 | .63 |
| 17. | Coordination of college admission testing (ACT and/or SAT testing) | 2.86 | 1.44 | 16 | 2.25 | 1.33 | 17 | 2.00 | .05 |
| | Mean Average | 3.71 | | | 3.88 | | | | |
| | Spearman Rho | +.83 ($p < .001$) | | | | | | | |