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ABSTRACT

A study was made of the attitudes of educators toward the relative importance of mastery of subject matter and mastery of teaching skills in teacher education programs. Three groups were sampled: 687 public school teachers, 448 public school principals, and 182 members of local boards of public schools. Responses to a mailed questionnaire revealed that 74.5 percent of the surveyed population perceived teaching processes to be of greater importance to effective teaching than was content expertise. An analysis is presented of these findings of opinions within each group, and comparisons are made among groups. The perceptions of the 23.9 percent of the respondents who perceived content to be of greater importance are also examined. Implications for teacher education programs are discussed and recommendations are made on maintaining an appropriate balance between necessary content mastery and process mastery. A copy of the questionnaire is appended, as well as a tabular breakdown of data results by groups and individual characteristics of the respondents. (JD)

# Perceived Relative Importance of Content and Process to Effective Teaching

by

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# Perceived Relative Importance of Content and Process to Effective Teaching

## Introduction

The intricate complexities of the plot, the suspense generated by the storyline, and the magnitude of the characters would provide any writer with the substance for a best seller. The storyline in this best seller focuses on both the degree of teaching competence and the quality of teacher education programs. State legislatures, colleges of education, professional organizations of all types, state education agencies, local education agencies, university administrations, regional accrediting agencies, and testing organizations by intent and by chance affect the teaching competence found in schools as well as the quality of teacher education programs. Typically, society's problems, especially education related problems, seem to escape state and federal agencies' abilities to take action and move toward a solution (Kerr, 1983).

The quality of teaching competence and teacher education programs is not as high as it should be. Directly and indirectly, deliberate policy decisions have cosmetically covered the complex issues of teaching and learning (Kerr, 1983).

The search for quality education has tended to polarize arguments toward either increased subject-matter (content) proficiency or increased pedagogical (process) proficiency as the way to achieve teaching competence. To counter the arguments of the reformers who conclude in favor of increased subject-matter proficiency, Hipple(1984) states, "Well, teaching won't be improved in that way," as anyone who thinks even the slightest bit seriously about education should realize."

Knowing subject matter content is important, but so are the process elements by which to teach the subject matter. These process elements are studied in teacher preparation programs. Denton and Lacina in their research on process measures in student teaching found that cognitive attainment of learners taught by education majors was higher ($\bar{X}$=69.0) than learners taught by non-education majors ($\bar{X}$=58.9). Learner cognitive attainment appears to be linked to instructional skills (Denton and Lacina, 1984).

The state of Texas, like many other states, is presently reforming its educational system, both teacher education and public school education, after years of educational neglect (Cardenas, 1984). A great danger to educational reform in Texas may be the action of the reformers. This action may cause the adoption of nonessential and organizationally dysfunctional systems to be established. The time may be ripe in which systematically to consider relationships between problem sources in education and possible solutions.

## Description of Research Design

In order to secure some measurements of the relative importance of the mastery of subject matter content and process skills in teacher education programs, perceptions of knowledgeable persons were obtained. Three groups of persons were sampled: public school classroom teachers, public school building principals, and members of the local boards of public schools.

Classroom teachers were selected for the obvious reason that they were those most closely related to the instructional activity under study. Their perceptions of the relative importance of content and process in teacher preparation programs was of paramount importance. A random sample of 1300 classroom teachers in Texas was selected. This sample represented 5 per cent of

those teachers in the public school during the spring 1984 semester. An instrument to secure the perceptions of this group was mailed to each of the 1300 teachers (See Appendix A). There were 687 instruments returned which represented 53 per cent of the total sample.

Building principals were selected as a sample group because they are responsible for seeing that effective instruction is carried out in their buildings and, because of that responsibility, must supervise teachers and make judgements about the relative need for additional content or upgraded process in the instructional activities used by the teachers. A random sample of 570 principals was selected representing 10 per cent of principals in the state during the spring of 1984. An instrument to secure their perceptions about the topic under study was mailed to each member of the sample (See Appendix B). The percentage of return was 79, consisting of 448 completed instruments.

Local board members were selected as a sample group in order to secure perceptions of lay persons, albeit lay persons who were knowledgeable about the public school endeavor. A random sample of 566 board members was selected. This number represented 7 per cent of the board members in the state during the spring of 1984. An instrument to obtain their perceptions about the relative importance of content and process in teacher training was mailed to each board member (See Appendix C). There were 182 instruments returned which constituted 32 per cent of those mailed.

Since a true random sample of each group was secured and since the percentage of returns was high for each group, it appeared that the findings were generalizable to the entire group in each case.

## Summary of Findings

Of the total sample of 2436 people surveyed among the three groups, 1312 returns, representing 54 per cent of the sample, were acceptable for analysis. With respect to the issue of relative importance of content and process in teacher education, 23.9 per cent of the respondents perceived content to be of greater importance while 74.5 per cent perceived process to be relatively more important to teacher success.

Those respondents who perceived content to be of greater importance were asked to distinguish among three suggested levels of content proficiency by rank-ordering their responses. Examination of Table 1, below, reveals that content proficiency at the level being taught was perceived to be of most importance, content proficiency above the level being taught was second in perceived importance, and content proficiency below the level being taught was third in perceived importance. The strongest perception was reported for content proficiency at the level being taught. Over 68 per cent of the respondents ranked this level first while 16.9 per cent and 27.2 per cent considered content proficiency below level and above level, respectively, to be most important among the three choices suggested.

Table 1

Relationship Between Content Proficiency Levels And Order of Ranking Among All Respondents Who Perceived Content Proficiency To Be Of Greater Importance Than Process Proficiency in Teacher Effectiveness

| Rank | Proficiency Below Level | Proficiency At Level | Proficiency Above Level |
|---|---|---|---|
| 1 | 16.9% | 68.4% | 27.2% |
| 2 | 33.7% | 27.1% | 39.8% |
| 3 | 49.4% | 4.5% | 33.0% |

From among the remedies offered to those respondents who perceived process

to be of greater importance, proficiency in motivating students to learn was seen to be of greatest importance while proficiency in the use of audio-visual aids was perceived to be of least significance. Table 2 depicts means, standard deviations, and rank-order relationships for those respondents who selected process proficiency over content proficiency.

Table 2

Relationships Between Suggested Process Proficiency Remedies And Order of Ranking Among All Respondents Who Perceived Process Proficiency To Be Of Greater Importance Than Content Proficiency in Teacher Effectiveness

| Rank | 1* (%) | 2* (%) | 3* (%) | 4* (%) | 5* (%) | 6* (%) | 7* (%) | 8* (%) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 36.1 | 11.2 | 24.3 | 44.9 | 11.6 | 7.5 | 11.6 |
| 2 | 9.7 | 17.2 | 13.3 | 17.4 | 24.7 | 14.4 | 9.0 | 13.6 |
| 3 | 1.1 | 13.9 | 11.8 | 14.1 | 12.3 | 14.2 | 5.7 | 10.4 |
| 4 | 2.1 | 11.6 | 13.9 | 13.3 | 8.6 | 15.4 | 7.6 | 9.7 |
| 5 | 2.7 | 9.4 | 18.0 | 8.7 | 4.4 | 18.0 | 12.1 | 9.2 |
| 6 | 5.5 | 7.0 | 16.2 | 9.5 | 3.0 | 15.5 | 18.3 | 7.9 |
| 7 | 12.6 | 4.5 | 14.9 | 9.3 | 1.7 | 7.5 | 29.0 | 5.0 |
| 8 | 63.7 | 0.3 | 0.8 | 3.5 | 0.4 | 3.4 | 10.8 | 2.4 |
| Mean | 6.78 | 2.82 | 4.26 | 3.48 | 2.21 | 4.07 | 5.32 | 3.67 |
| S.D. | 0.78 | 1.88 | 1.97 | 2.15 | 1.53 | 1.94 | 2.13 | 2.02 |

*1: more proficiency in the use of audio-visual equipment
*2: more proficiency in the use of various teaching strategies
*3: more proficiency in the selection and use of instructional strategies
*4: more proficiency in techniques of classroom control
*5: more proficiency in motivating students to want to learn
*6: more proficiency in determining student learning objectives
*7: more proficiency in constructing pre- and post-tests which accurately measure student learning
*8: more proficiency in the effective use of time in the classroom

Summary of Analysis by Groups

Analysis of the data by groups revealed that even though the majority of all groups perceived process proficiency to be of greater importance than content proficiency in determining teacher effectiveness, the strength of the

majority differed among groups. Table 3 illustrates these differences. Detailed findings for subgroups within each of the three major groups of respondents are contained in Appendixes D, E, and F.

Table 3

Perceived Importance of Content and Process in Teacher Education by Group

| Group | Content Proficiency (%) | Process Proficiency (%) |
|---|---|---|
| Principals | 15.2 | 84.8 |
| Teachers | 27.8 | 72.2 |
| Board Members | 33.0 | 67.0 |

While 84.8 per cent of the principals who responded perceived process proficiency to be of greater importance than content proficiency, 72.2 per cent of the teachers and 67.0 per cent of the board members who responded revealed the same order in the perceptions of the importance of the two variables. Differences in perceptions of the importance of content and process were significant (alpha = 0.05) among the three groups based on the chi-square statistic. Computation of the chi-square statistic for each pair of groups yielded significant differences (alpha = 0.05) between principals and teachers and between principals and board members while the difference between teachers and board members did not meet the specified test.

Findings among and within groups

In order to determine relationships of certain variables to the content and process question, the data were stratified and analyzed according to these variables of interest. The variables studied included size of district of the respondent, organizational level, experience level, experience at other levels,

and sex of the respondent. So that a basis for comparison could be determined, the data were first analyzed to compare each of the three groups on the general content and process dichotomy. Table 4 shows a comparison of percentage of responses by groups of those group members who perceived content proficiency to be of more importance than process proficiency.

Table 4

Relationships Between Content Proficiency Levels And Order of Ranking Among All Respondents In Each Group Who Perceived Content Proficiency To Be Of Greater Importance Than Process Proficiency in Teacher Effectiveness

| | Proficiency Below Level(%) | | | Proficiency At Level(%) | | | Proficiency Above Level(%) | | |
|---|---|---|---|---|---|---|---|---|---|
| Rank | Prin. | Tchr. | Board | Prin. | Tchr. | Board | Prin. | Tchr. | Board |
| 1 | 16.3 | 19.0 | 10.4 | 42.9 | 65.1 | 71.4 | 40.8 | 27.2 | 28.6 |
| 2 | 75.0 | 32.9 | 27.1 | 15.0 | 31.4 | 26.8 | 10.0 | 37.3 | 44.6 |
| 3 | 25.9 | 48.1 | 62.5 | 42.6 | 3.5 | 1.8 | 31.5 | 35.5 | 26.8 |
| Mean | 2.25 | 2.29 | 2.52 | 1.35 | 1.38 | 1.30 | 2.06 | 2.08 | 1.98 |
| S.D. | 0.72 | 0.77 | 0.68 | 0.66 | 0.56 | 0.50 | 0.76 | 0.79 | 0.75 |

Even though each of the three groups rated proficiency "at level" to be of greatest importance, "above level" to be next in importance, and "below level" to be third in importance, examination of Table 4 reveals differences. The principals were virtually divided in their first ranking between proficiency at level (42.9 per cent) and proficiency above level (40.8 per cent). Teachers and board members, however, clearly favored proficiency at level. Also, almost an identical percentage of principals ranked proficiency at level third as did those who ranked this level first. Appendixes G, H, and I give detailed data for each group on various stratifying variables.

A significant majority of each group (see Table 3) perceived process to be of greater importance than content in teacher effectiveness, and among these groups, all perceived "proficiency in ways to motivate students to want to

learn" to be of greatest importance and "proficiency in the use of audio-visual equipment" to be of least importance among the eight possible remedies listed. Differences were reported, however, in the rankings of the other six process remedies. Table 5 shows the means and standard deviations for each group on the eight process remedies. Appendixes J, K, and L give a detailed view of the three groups' rankings.

Table 5

Means and Standard Deviations Of Rankings Of Process Items By Principals, Teachers, and Board Members

| Group | 1* | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Principals | | | | | | | | |
| Mean | 6.98 | 2.69 | 4.60 | 3.18 | 2.33 | 3.86 | 5.51 | 3.37 |
| Std. Dev. | 2.04 | 1.84 | 1.87 | 2.03 | 1.52 | 1.86 | 2.06 | 1.89 |
| Teachers | | | | | | | | |
| Mean | 6.64 | 2.68 | 3.95 | 3.63 | 2.22 | 4.28 | 5.29 | 4.04 |
| Std. Dev. | 2.14 | 1.76 | 2.02 | 2.21 | 1.54 | 2.02 | 2.16 | 2.08 |
| Board | | | | | | | | |
| Mean | 6.76 | 3.77 | 4.50 | 3.74 | 1.80 | 3.85 | 4.90 | 3.09 |
| Std. Dev. | 2.18 | 2.17 | 1.90 | 2.19 | 1.41 | 1.81 | 2.17 | 1.91 |

* See Table 2 for description of items

Even though discrepancies in the order of mean rankings occurred with respect to the eighth item, "proficiency in the effective use of time in the classroom," among the three groups (ranked 2nd by board, 4th by principals, and 5th by teachers), computation of Spearman Rank Order Correlation Coefficients revealed a high correlation in order of ranking among the three groups. Principals' order of ranking correlated with teachers' order of ranking at 0.92 and with board members' order of ranking at 0.90. Teachers' order of ranking correlated with board members order of ranking at 0.78.

Analysis within groups

Appendixes D through L depict data which were stratified according to

tested variables. Analyses were completed to determine whether or not significant relationships existed within groups.

The chi-square statistic was used to determine significance (alpha = 0.05) between and among subgroups within the three broader groupings of principals, teachers, and board members. Examination of Appendix D, which contains data on principals' perception of the relative importance of content and process to teacher effectiveness, revealed that significant differences existed among principals according to experience in the principalship. Pairwise analyses of the experience groupings revealed that principals in the 2-5 year experience range viewed content as significantly less important than did principals in either the 6-10 year range or in the 16+ year range. Similarly, principals in the 11-15 year range of experience perceived content as significantly less important than did principals in the 16+ year range.

Statistical analysis of relationships among principals on the variable of "previous teaching experience" yielded a significant difference between principals who had taught at the elementary level and principals who had taught at both levels. Those who had taught at the elementary level placed a higher emphasis on content than did the second group. No significant differences were observed when teachers who had taught at the elementary level were compared to those who had taught at the secondary level or when those who had taught at the secondary level were compared to those who had taught at both levels.

Similar chi-square statistics were computed on the various subgroupings of teachers and board members. Data showing these groups' perceptions of the content and process question are shown in Appendixes E and F. A greater degree of homogeneity was found within these two groups. A higher percentage of male teachers as compared to female teachers favored content over process at the 0.05 level of significance. All other comparisons within the teachers'

groupings yielded no significant differences. Within the board members' sub-groupings, a higher percentage of board members from districts with enrollments greater than 1000 as compared to those from districts with fewer than 1000 students favored content at a significantly higher level. All other comparisons within the board member groupings yielded no significant differences.

T-tests of significance were computed to determine the significance of mean differences among those respondents from each of the three major groups who selected content over process as instrumental in determining teacher effectiveness. Data on which the t-tests were computed are found in Appendixes G, H, and I. Means were computed for each group's rankings of the three levels of suggested content proficiency, and t-tests of significance were make on the means. No significant differences were found among the three major groups on their perceptions of content proficiency "at level". Board members perceived content proficiency "below level" to be of significantly less importance than did either principals or teachers (alpha =0.05). Conversely, board members perceived proficiency in content "above level" to of significantly greater importance than did either principals or teachers.

Similar tests of significance were computed within groups. Even though some significant differences were found in perceptions among these subgroups, these do not provide further useful information and will not be considered here.

Appendixes J, K, and L depict data for the three major groups and subgroups within the major groups related to perceptions of the relative importance of the eight suggested remedies to improve the process of teaching. These data were reported by those respondents who selected process as being of greater importance than content in teacher effectiveness. Spearman Rank Order

Correlation coefficients were computed which compared the ranking order of each subgroup with all other subgroups within a major group.

Among the principals' subgroups, all correlation coefficients exceeded 0.90 save one. First-year teachers' rankings correlated at 0.84 with the rankings of secondary teachers. The major causes for this lower correlation were that while first-year principals ranked "proficiency in the use of teaching strategies" fourth, principals who had taught at the secondary level, ranked this item first, and while first year principals ranked "proficiency in the effective use of time" second, principals who had taught at the secondary level ranked this item fourth.

First-year teachers were the subgroup within the teachers' group who caused the lowest correlations. Even here, however, the lowest correlation was 0.75 while most correlations exceeded 0.90. First-year teachers' rankings correlated at 0.85 with teachers in the 2-5 year experience range; at 0.85 with teachers in the 6-10 year experience range; at 0.89 with teachers in the 11-15 year experience range; at 0.75 with teachers in the 16+ year experience range; at 0.77 with male teachers; and at 0.85 with female teachers. The major causes for these differences were that first-year teachers ranked "proficiency in the use of teaching strategies" lower than did the other groups, and they ranked "proficiency in the effective use of time" higher than did the other groups.

Board members' rankings revealed more randomness than did either of the other two groups. Even though all correlation coefficients were 0.75 or higher, fewer coefficients exceeded 0.90 among the board members. In general, the largest discrepancies in ranking order occurred in the rankings of the process items related to teaching strategies, classroom control, determining of learning objectives, and use of time.

## Implications

The findings from the research described appear to contain educational implications for at least three areas of impact. Implications exist for teacher education programs at the pre-service level; for staff development programs at the in-service level; and for personal development activities at the self-growth level.

The research findings seem clearly to imply that the kinds of learnings one acquires in a teacher education program make a difference in teaching competence. Specifically, the degree to which a teacher-in-training has mastered the process skills necessary to teach effectively the required content will determine the ultimate success of the teacher to cause the learnings to occur.

An overwhelming percentage of each of the three groups sampled perceived process proficiency to be of greater importance than content proficiency as a measure of teacher effectiveness. The implication of this finding is that as local school districts, intermediate service centers, and state departments of education plan staff development activities for practicing teachers, more attention must be given to helping teachers to become more proficient in mastering processes concerned with how to teach effectively the required content.

Findings based on the analyses of the teachers sampled imply that practicing teachers have a high level of concern about the need for increased proficiency in how to teach what they teach. A further implication is that as these teachers strive to improve through self-growth plans, they see mastery of the teaching process as the way to achieve this improvement.

## Recommendations

Many current critics of the educational enterprise contend that pre-service teachers should have more course work in the subject matter which they plan to teach. These critics, many of whom do not understand the process of teaching and learning, conclude that the acquisition of more subject matter content in mass doses will cure the ills of a faltering educational system. This argument is falacious to the point that it is even suggested that another course in 19th century English literature will better prepare a person to teach writing skills.

Recommendations for activities in each of those areas for which implications were drawn can be made. In general, the recommendations, based on the implications made, are stated to arrive at the appropriate balance between necessary content mastery and process mastery.

1. Teaching is a discipline which must be studied. Prospective teachers must have the opportunity to practice the skills necessary to prevent failure of both teacher and student in the classroom. On balance, therefore, at least 15 to 20 per cent of the coursework undertaken by pre-service teachers should be done in schools of education. To consider less in teacher preparation than is presently being done will disable and weaken teachers, schools, and ultimately, the nation.

2. Staff development planners for in-service teachers need more closely to align staff development activities to observed discrepancies in teaching performance. Since most of these discrepancies are perceived to be in process proficiency, the obvious recommendation is that more staff development activities which address improvement in the teaching act need to be developed and implemented.

3. Teachers who search for activities to improve themselves must be assured by the vested organizations that the choice of formal and informal activities aimed at improving the process of teaching are of equal or greater value than additional content-related activities. Many participants in these vested organizations tend to attempt to convince individuals interested in self-improvement to take another course or participate in another activity which will add to their knowledge of subject matter rather than a course or activity which will improve the individual's ability to teach the subject-matter. Frequently in these arguments a higher value is placed on subject matter rather than process, and rarely are either organizational or individual needs used to determine activities.

## Considerations for Future Research

The study could be expanded to secure the perceptions of other groups:

1. parents
2. college and university professors of education
3. college and university professors other than professors of education
4. university supervisors of student teaching
5. state department personnel

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# PRINCIPALS' PERCEPTIONS OF TEACHERS' NEEDS IN THE IMPROVEMENT OF INSTRUCTION

Section A:Background Data. Please complete the following items about you and your district by checking the appropriate blanks.

1. District ADA (01)
   _____ 1. 1000 or below
   _____ 2. Above 1000

2. Is your school (02)
   _____ 1. Elementary?
   _____ 2. Secondary?

3. Your total administrative experience (03)
   _____ 1. First Year
   _____ 2. 2-5 years
   _____ 3. 6-10 years
   _____ 4. 11-15 years
   _____ 5. 16 and more

4. When you were a teacher, did you teach at the (04)
   _____ 1. Elementary level, (K-8)?
   _____ 2. Secondary level, (9-12)?
   _____ 3. Both Elementary and Secondary levels?

5. Your sex (05)
   _____ 1. Male
   _____ 2. Female

Section B:Think about the teachers in your building who need the most help in improving instruction. CHECK THE ITEM IN ONLY ONE OF THE BOXES BELOW which you feel would most improve those teachers' performance in the classroom.

DO NOT CHECK BOTH BOXES

_____ 1. More proficiency in the content areas that they teach, e.g., science, music, history, math, etc.

IF YOU CHECKED THIS ITEM COMPLETE ONLY SECTION C ON THE BACK

(06)

DO NOT CHECK BOTH BOXES

_____ 2. More proficiency in how to teach the content areas.

IF YOU CHECKED THIS ITEM COMPLETE ONLY SECTION D ON THE BACK

PLEASE CONTINUE ON BACK SIDE

COMPLETE THIS SECTION ONLY IF YOU CHECKED BOX 1 IN SECTION B

Section C: Listed below are several possible areas of improvement in the content proficiency. Please rank these items by placing a "1" in front of the item you consider of most importance in helping teachers, a "2" in front of the second most important, etc.

_____ 1. More proficiency in the content area at levels below that which they are teaching. (07)

_____ 2. More proficiency in the content area at the level they are teaching. (08)

_____ 3. More proficiency in the content area at levels above that which they are teaching. (09)

COMPLETE THIS SECTION ONLY IF YOU CHECKED BOX 2 IN SECTION B

Section D: Listed below are several possible areas of improvement in the teaching process. Please rank these items by placing a "1" in front of the item you consider of most importance in helping teachers, a "2" in front of the second most important, etc.

_____ 1. More proficiency in the use of audio-visual equipment. (10)

_____ 2. More proficiency in the use of various teaching strategies. (11)

_____ 3. More proficiency in the selection and use of instructional materials. (12)

_____ 4. More proficiency in techniques of classroom control. (13)

_____ 5. More proficiency in motivating students to want to learn. (14)

_____ 6. More proficiency in determining student learning objectives. (15)

_____ 7. More proficiency in constructing pre- and post-tests which accurately measure student learning. (16)

_____ 8. More proficiency in the effective use of time in the classroom. (17)

MAIL YOUR COMPLETED SURVEY IN THE ENCLOSED ENVELOPE.

PERCEPTIONS OF TEACHERS'
NEEDS IN THE IMPROVEMENT OF INSTRUCTION

Section A: Background Data. Please complete the following items about you and your district by checking the appropriate blanks.

1. District ADA (01)
   _____ 1. 1000 or below
   _____ 2. Above 1000

2. At what level do you teach? (02)
   _____ 1. Elementary level, (K-8)
   _____ 2. Secondary level, (9-12)
   _____ 3. Both Elementary and Secondary Levels.

3. Your total teaching experience (03)
   _____ 1. First Year
   _____ 2. 2-5 years
   _____ 3. 6-10 years
   _____ 4. 11-15 years
   _____ 5. 16 and more

4. Your sex (04)
   _____ 1. Male
   _____ 2. Female

Section B: CHECK THE ITEM IN ONLY ONE OF THE BOXES BELOW which you feel would be of most assistance to you in improving instruction in the subject (for secondary teachers) or the grade level (for elementary teachers) in which you do the majority of your teaching.

DO NOT CHECK BOTH BOXES

_____ 1. More proficiency in the content areas that you teach, e.g., science, music, history, math, etc.

IF YOU CHECKED THIS ITEM COMPLETE ONLY SECTION C ON THE BACK

(05)

DO NOT CHECK BOTH BOXES

_____ 2. More proficiency in how to teach the content areas.

IF YOU CHECKED THIS ITEM COMPLETE ONLY SECTION D ON THE BACK

PLEASE CONTINUE ON BACK SIDE

COMPLETE THIS SECTION ONLY IF YOU CHECKED BOX 1 IN SECTION B

Section C: Listed below are several possible areas of improvement in the content proficiency. Please rank these items by placing a "1" in front of the item you consider of most importance in helping teachers, a "2" in front of the second most important, etc.

_____ 1. More proficiency in the content area at levels below that which they are teaching. (07)

_____ 2. More proficiency in the content area at the level they are teaching. (08)

_____ 3. More proficiency in the content area at levels above that which they are teaching. (09)

COMPLETE THIS SECTION ONLY IF YOU CHECKED BOX 2 IN SECTION B

Section D: Listed below are several possible areas of improvement in the teaching process. Please rank these items by placing a "1" in front of the item you consider of most importance in helping teachers, a "2" in front of the second most important, etc.

_____ 1. More proficiency in the use of audio-visual equipment. (10)

_____ 2. More proficiency in the use of various teaching strategies. (11)

_____ 3. More proficiency in the selection and use of instructional materials. (12)

_____ 4. More proficiency in techniques of classroom control. (13)

_____ 5. More proficiency in motivating students to want to learn. (14)

_____ 6. More proficiency in determining student learning objectives. (15)

_____ 7. More proficiency in constructing pre- and post-tests which accurately measure student learning. (16)

_____ 8. More proficiency in the effective use of time in the classroom. (17)

MAIL YOUR COMPLETED SURVEY IN THE ENCLOSED ENVELOPE.

BOARD MEMBERS' PERCEPTIONS OF TEACHERS' NEEDS IN THE IMPROVEMENT OF INSTRUCTION

Section A: Background Data. Please complete the following items about you and your district by checking the appropriate blanks.

1. District Average Daily Attendance (ADA)
   _____ 1. 1000 or below (01)
   _____ 2. Above 1000

2. Your total board of education experience
   _____ 1. First year (02)
   _____ 2. 2-5 years
   _____ 3. 6-10 years
   _____ 4. 11-15 years
   _____ 5. 16 and more

3. Have you ever been a public school teacher or administrator?
   _____ 1. Yes (03)
   _____ 2. No

4. Your sex
   _____ 1. Male (04)
   _____ 2. Female

Section B: Think about the teachers in your district who need the most help in improving instruction. CHECK THE ITEM IN ONLY ONE OF THE BOXES BELOW which you feel would most improve those teachers' performance in the classroom.

DO NOT CHECK BOTH BOXES

_____ 1. More proficiency in the content areas that they teach, e.g., science, music, history, math, etc.

IF YOU CHECKED THIS ITEM COMPLETE ONLY SECTION C ON THE BACK

(05)

DO NOT CHECK BOTH BOXES

_____ 2. More proficiency in how to teach the content areas.

IF YOU CHECKED THIS ITEM COMPLETE ONLY SECTION D ON THE BACK

PLEASE CONTINUE ON BACK SIDE

COMPLETE THIS SECTION ONLY IF YOU CHECKED BOX 1 IN SECTION B

Section C: Listed below are several possible areas of improvement in the content proficiency. Please rank these items by placing a "1" in front of the item you consider of most importance in helping teachers, a "2" in front of the second most important, etc.

____ 1. More proficiency in the content area at levels below that which they are teaching. (06)

____ 2. More proficiency in the content area at the level they are teaching. (07)

____ 3. More proficiency in the content area at levels above that which they are teaching. (08)

COMPLETE THIS SECTION ONLY IF YOU CHECKED BOX 2 IN SECTION B

Section D: Listed below are several possible areas of improvement in the teaching process. Please rank these items by placing a "1" in front of the item you consider of most importance in helping teachers, a "2" in front of the second most important, etc.

____ 1. More proficiency in the use of audio-visual equipment. (09)

____ 2. More proficiency in the use of various teaching strategies. (10)

____ 3. More proficiency in the selection and use of instructional materials. (11)

____ 4. More proficiency in techniques of classroom control. (12)

____ 5. More proficiency in motivating students to want to learn. (13)

____ 6. More proficiency in determining student learning objectives. (14)

____ 7. More proficiency in constructing pre- and post-tests which accurately measure student learning. (15)

____ 8. More proficiency in the effective use of time in the classroom. (16)

MAIL YOUR COMPLETED SURVEY IN THE ENCLOSED ENVELOPE.

THANK YOU FOR YOUR ASSISTANCE

APPENDIX D

Relative Importance of Content and Process to Teacher Effectiveness as Perceived by Various Principals' Groups

| Group Identity | Number In Group | Content Proficienty | Process Proficienty |
|---|---|---|---|
| All Respondents | 1,312 | 23.9% | 74.5% |
| All Principals | 448 | 15.2 | 84.8 |
| Elementary | 244 | 18.4 | 81.6 |
| Secondary | 164 | 12.2 | 87.8 |
| 1st Yr. Exper. | 17 | 5.9 | 94.9 |
| 2-5 Yr. " | 99 | 8.1 | 91.9 |
| 6-10 Yr. " | 124 | 16.9 | 83.1 |
| 11-15 Yr. " | 93 | 10.8 | 89.2 |
| 16+ Yr. " | 106 | 25.5 | 74.5 |
| Taught Elem. | 150 | 20.0 | 80.0 |
| Taught Sec. | 153 | 14.4 | 85.6 |
| Taught Both | 136 | 11.0 | 89.0 |
| Male | 333 | 16.5 | 83.5 |
| Female | 107 | 11.2 | 88.8 |
| Dist. ADA≤1000 | 148 | 11.5 | 88.5 |
| Dist. ADA>1000 | 290 | 17.2 | 82.8 |

APPENDIX E

Relative Importance of Content and Process to Teacher Effectiveness as Perceived by Various Teachers' Groups

| Group Identity | Number in Group | Content Proficienty | Process Proficienty |
|---|---|---|---|
| All Respondents | 1,312 | 23.9% | 74.5% |
| All Teachers | 681 | 27.8 | 72.2 |
| Elementary | 408 | 26.2 | 73.8 |
| Secondary | 210 | 32.3 | 67.7 |
| Both Elem/Sec | 46 | 19.6 | 80.4 |
| 1st Yr. Exper. | 8 | 12.5 | 87.5 |
| 2-5 Yr. " | 146 | 24.0 | 76.0 |
| 6-10 Yr. " | 166 | 22.9 | 77.1 |
| 11-15 Yr. " | 156 | 32.7 | 67.3 |
| 16+ Yr. " | 195 | 31.3 | 68.7 |
| Male | 156 | 36.5 | 63.5 |
| Female | 511 | 25.2 | 74.8 |
| Dist. ADA≤1000 | 462 | 28.4 | 71.6 |
| Dist. ADA>1000 | 463 | 26.8 | 73.2 |

APPENDIX F

Relative Importance of Content and Process to Teacher Effectiveness as Perceived by Various Board Members' Groups

| Group Identity | Number in Group | Content Proficienty | Process Proficienty |
|---|---|---|---|
| All Respondents | 1,312 | 23.9% | 74.5% |
| All Board Members | 182 | 33.0 | 67.0 |
| 1st Yr. Exper | 33 | 33.3 | 66.7 |
| 2-5 Yr. " | 70 | 35.7 | 64.3 |
| 6-10 Yr. " | 37 | 27.0 | 73.0 |
| 11-15 Yr. " | 20 | 40.0 | 60.0 |
| 16+ Yr. " | 14 | 35.7 | 64.3 |
| Teach. Exper. | 32 | 31.3 | 68.7 |
| No Teach. Exper | 147 | 33.3 | 66.7 |
| Male | 150 | 33.3 | 66.7 |
| Female | 28 | 32.1 | 67.9 |
| Dist. ADA≤1000 | 97 | 23.7 | 76.3 |
| Dist. ADA>1000 | 81 | 43.2 | 56.8 |

APPENDIX G

Relative Importance of Selected Content Proficiency Levels Among Principals as Perceived by Those Principals Who Selected Content Over Process in Importance to Teacher Effectiveness

| Group Identity | Below Level(%) | | | At Level(%) | | | Above Level(%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Rank 1 | Rank 2 | Rank 3 | Rank 1 | Rank 2 | Rank 3 | Rank 1 | Rank 2 | Rank 3 |
| All Respond. | 16.9 | 33.7 | 49,4 | 68.4 | 27.1 | 4.5 | 27.2 | 39.8 | 33.0 |
| All Principals | 16.3 | 42.9 | 40.8 | 75.0 | 15.0 | 10.0 | 25.9 | 42.6 | 31.5 |
| Elementary | 11.4 | 45.7 | 42.9 | 70.0 | 20.0 | 10.0 | 33.3 | 35.9 | 30.8 |
| Secondary | 25.0 | 33.3 | 41.7 | 88.9 | 5.6 | 5.6 | 7.7 | 61.5 | 30.8 |
| 1st Yr. Exper | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 |
| 2-5 Yr. " | 33.3 | 50.0 | 16.7 | 62.5 | 12.5 | 25.0 | 25.0 | 37.5 | 37.5 |
| 6-10 Yr. " | 18.8 | 56.3 | 25.0 | 83.3 | 11.1 | 5.6 | 18.8 | 37.5 | 43.8 |
| 11-15 Yr. " | 0.0 | 14.3 | 85.7 | 88.9 | 11.1 | 0.0 | 12.5 | 75.5 | 12.5 |
| 16+ Yr. " | 15.8 | 42.1 | 42.1 | 70.8 | 16.7 | 12.5 | 33.3 | 38.1 | 28.6 |
| Taught Elem. | 14.3 | 38.1 | 47.6 | 64.0 | 24.0 | 12.0 | 44.0 | 32.0 | 24.0 |
| Taught Sec. | 20.0 | 33.3 | 46.7 | 90.0 | 5.0 | 5.0 | 6.3 | 62.5 | 31.3 |
| Taught Both | 15.4 | 61.5 | 23.1 | 73.3 | 13.3 | 13.3 | 15.4 | 38.5 | 46.2 |
| Male | 15.0 | 42.5 | 42.5 | 80.4 | 9.8 | 9.8 | 16.7 | 52.4 | 31.0 |
| Female | 22.2 | 44.4 | 33.3 | 44.4 | 44.4 | 11.1 | 58.3 | 8.3 | 33.3 |
| Dist.ADA≤1000 | 16.7 | 41.7 | 41.7 | 75.0 | 18.8 | 6.8 | 27.3 | 36.4 | 36.4 |
| Dist.ADA>1000 | 16.2 | 43.2 | 40.5 | 75.0 | 13.6 | 11.4 | 25.6 | 44.2 | 30.2 |

APPENDIX H

Relative Importance of Selected Content Proficiency Levels Among Teachers as Perceived by Those Teachers Who Selected Content Over Process in Importance to Teacher Effectiveness

| Group Identity | Below Level(%) | | | At Level(%) | | | Above Level(%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Rank 1 | Rank 2 | Rank 3 | Rank 1 | Rank 2 | Rank 3 | Rank 1 | Rank 2 | Rank 3 |
| All Respond. | 16.9 | 33.7 | 49.4 | 68.4 | 27.1 | 4.5 | 27.2 | 39.8 | 33.0 |
| All Teachers | 19.0 | 32.9 | 48.1 | 65.1 | 31.4 | 3.5 | 27.2 | 37.3 | 35.5 |
| Elementary | 12.0 | 37.0 | 51.1 | 67.0 | 29.0 | 4.0 | 29.3 | 33.3 | 37.4 |
| Secondary | 26.8 | 28.6 | 44.6 | 65.1 | 33.0 | 1.6 | 24.6 | 44.3 | 31.1 |
| Both El./Sec. | 44.4 | 11.1 | 44.4 | 37.5 | 50.0 | 12.5 | 25.0 | 37.5 | 37.5 |
| 1st Yr. Exper | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2-5 Yr. " | 23.2 | 30.0 | 46.7 | 59.4 | 34.4 | 6.3 | 31.3 | 34.4 | 34.4 |
| 6-10 Yr. " | 20.0 | 34.3 | 45.7 | 66.7 | 30.6 | 2.8 | 20.0 | 40.0 | 40.0 |
| 11-15 Yr. " | 13.6 | 31.8 | 54.5 | 68.1 | 31.9 | 0.0 | 31.9 | 38.3 | 29.8 |
| 16+ Yr. " | 18.8 | 35.4 | 45.8 | 65.5 | 30.9 | 3.6 | 25.9 | 35.2 | 38.9 |
| Male | 25.5 | 34.0 | 40.4 | 66.7 | 29.4 | 3.9 | 28.0 | 38.0 | 34.0 |
| Female | 15.5 | 32.7 | 51.8 | 64.5 | 32.3 | 3.3 | 27.1 | 36.4 | 36.4 |
| Dist.ADA≤1000 | 25.0 | 22.5 | 52.5 | 59.1 | 36.4 | 4.5 | 29.5 | 40.9 | 29.5 |
| Dist.ADA>1000 | 16.2 | 33.3 | 50.5 | 67.3 | 29.2 | 3.5 | 25.9 | 38.4 | 35.7 |

APPENDIX I

Relative Importance of Selected Content Proficiency Levels Among Board Members as Perceived by Those Board Members Who Selected Content Over Process in Importance to Teaching Effectiveness

| Group Identity | Below Level(%) | | | At Level(%) | | | Above Level(%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Rank 1 | Rank 2 | Rank 3 | Rank 1 | Rank 2 | Rank 3 | Rank 1 | Rank 2 | Rank 3 |
| All Respond. | 16.9 | 33.7 | 49.4 | 68.4 | 27.1 | 4.5 | 27.2 | 39.8 | 33.0 |
| All Board Mbrs | 10.4 | 27.1 | 62.5 | 71.4 | 26.8 | 1.8 | 28.6 | 44.6 | 26.8 |
| 1st Yr. Exper | 27.3 | 9.1 | 63.6 | 54.5 | 36.4 | 9.1 | 40.0 | 50.0 | 10.0 |
| 2-5 Yr. " | 9.5 | 28.6 | 61.9 | 66.7 | 33.3 | 0.0 | 28.0 | 40.0 | 32.0 |
| 6-10 Yr. " | 0.0 | 40.0 | 60.0 | 77.8 | 22.2 | 0.0 | 28.6 | 42.9 | 28.6 |
| 11-15 Yr. " | 0.0 | 33.3 | 66.7 | 100.0 | 0.0 | 0.0 | 25.0 | 50.0 | 25.0 |
| 16+ Yr. " | 0.0 | 40.0 | 60.0 | 83.3 | 16.7 | 0.0 | 16.7 | 50.0 | 33.3 |
| Teach Exper. | 10.0 | 30.0 | 60.0 | 50.0 | 50.0 | 0.0 | 40.0 | 20.0 | 40.0 |
| No Teach " | 10.5 | 26.3 | 63.2 | 76 1 | 21.7 | 2.2 | 26.1 | 50.0 | 23.9 |
| Male | 10.0 | 20 0 | 70.0 | 70.2 | 29.8 | 0.0 | 31.9 | 46.8 | 21.3 |
| Female | 12.5 | 62.5 | 25.0 | 77.8 | 11.1 | 11.1 | 11.1 | 33.3 | 55.6 |
| Dist.ADA≤1000 | 5.0 | 45.0 | 50.0 | 77.3 | 18.2 | 4.5 | 22.7 | 36.4 | 40.9 |
| Dist.ADA>1000 | 14.8 | 14.8 | 70.4 | 66.7 | 33.3 | 0.0 | 33.3 | 48.5 | 18.2 |

APPENDIX J

## Relative Importance of Selected Process Variables Among Principals as Perceived by Those Principals Who Selected Process Over Content in Importance to Teacher Effectiveness

| Group Identity | Process Variables (Mean) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1* | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| All Respondents | 6.78 | 2.82 | 4.26 | 3.48 | 2.21 | 4.07 | 5.32 | 3.67 |
| All Principals | 6.98 | 2.69 | 4.60 | 3.18 | 2.33 | 3.86 | 5.51 | 3.37 |
| Elementary | 6.78 | 2.63 | 4.41 | 3.22 | 2.23 | 3.71 | 5.34 | 3.40 |
| Secondary | 7.23 | 2.75 | 4.90 | 3.16 | 2.47 | 4.11 | 5.69 | 3.39 |
| 1st Yr. Exper. | 6.19 | 3.44 | 4.63 | 3.13 | 1.94 | 3.88 | 4.94 | 3.00 |
| 2-5 Yr. " | 7.21 | 2.79 | 4.63 | 3.29 | 2.47 | 4.16 | 5.75 | 3.37 |
| 6-10 Yr. " | 6.97 | 2.46 | 4.50 | 3.23 | 2.35 | 3.70 | 5.56 | 3.39 |
| 11-15 Yr. " | 7.19 | 2.81 | 4.79 | 3.39 | 2.30 | 3.68 | 5.55 | 3.53 |
| 16+ Yr. " | 6.68 | 2.63 | 4.49 | 2.65 | 2.25 | 3.94 | 5.26 | 3.24 |
| Taught Elementary | 6.97 | 2.73 | 4.60 | 3.27 | 2.31 | 3.92 | 5.63 | 3.52 |
| Taught Secondary | 7.11 | 2.45 | 4.83 | 3.30 | 2.46 | 4.08 | 5.58 | 3.53 |
| Taught Both | 6.83 | 2.93 | 4.37 | 2.94 | 2.17 | 3.54 | 5.28 | 3.08 |
| Male | 6.88 | 2.66 | 4.61 | 3.20 | 2.30 | 3.80 | 5.43 | 3.27 |
| Female | 7.25 | 2.78 | 4.60 | 3.14 | 2.40 | 4.05 | 5.75 | 3.67 |
| Dist. ADA≤1000 | 6.90 | 2.64 | 4.44 | 3.26 | 2.07 | 3.97 | 5.63 | 3.46 |
| Dist. ADA>1000 | 7.01 | 2.70 | 4.70 | 3.14 | 2.47 | 3.80 | 5.44 | 3.34 |

1: more proficiency in the use of audio-visual equipment
2: more proficiency in the use of various teaching strategies
3: more proficiency in the selection and use of instructional strategies
4: more proficiency in techniques of classroom control
5: more proficiency in motivating students to want to learn
6: more proficiency in determining student learning objectives
7: more proficiency in constructing pre- and post-tests which accurately measure student learning
8: more proficiency in the effective use of time in the classroom.

APPENDIX K

Relative Importance of Selected Process Variables Among Teachers as Perceived by Those Teachers Who Selected Process Over Content in Importance to Teacher Effectiveness

| Group Identity | Process Variables(Mean) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1* | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| All Respondents | 6.78 | 2.82 | 4.26 | 3.48 | 2.21 | 4.07 | 5.32 | 3.67 |
| All Teachers | 6.64 | 2.68 | 3.95 | 3.63 | 2.22 | 4.28 | 5.29 | 4.04 |
| Elementary | 6.82 | 2.74 | 3.40 | 3.70 | 2.34 | 4.25 | 5.43 | 4.06 |
| Secondary | 6.33 | 2.63 | 3.80 | 3.58 | 2.08 | 4.33 | 4.95 | 4.17 |
| Both Elem./Sec. | 6.39 | 2.44 | 4.18 | 3.22 | 1.81 | 4.33 | 5.41 | 3.49 |
| 1st Yr. Exper. | 5.00 | 3.33 | 3.33 | 2.50 | 2.17 | 4.00 | 4.00 | 3.00 |
| 2-5 Yr. " | 6.55 | 2.55 | 3.84 | 3.52 | 2.33 | 4.35 | 5.38 | 4.06 |
| 6-10 Yr. " | 6.75 | 2.79 | 3.83 | 3.73 | 2.20 | 4.16 | 5.46 | 3.96 |
| 11-15 Yr. " | 7.07 | 2.70 | 4.08 | 3.66 | 2.41 | 4.60 | 5.24 | 4.01 |
| 16+ Yr. " | 6.37 | 2.65 | 4.09 | 3.65 | 2.00 | 4.09 | 5.15 | 4.20 |
| Male | 6.05 | 2.42 | 3.66 | 3.32 | 1.94 | 4.07 | 5.15 | 4.02 |
| Female | 6.77 | 2.74 | 4.01 | 3.70 | 2.30 | 4.31 | 5.32 | 4.05 |
| Dist. ADA 1000 | 6.56 | 2.88 | 3.87 | 3.74 | 1.83 | 4.33 | 5.52 | 3.97 |
| Dist. ADA 1000 | 6.67 | 2.63 | 3.98 | 3.56 | 2.35 | 4.26 | 5.24 | 4.03 |

1: more proficiency in the use of audio-visual equipment
2: more proficiency in the use of various teaching strategies
3: more proficiency in the selection and use of instructional strategies
4: more proficiency in tehcniques of classroom control
5: more proficiency in motivating students to want to learn
6: more proficiency in determining student learning objectives
7: more proficiency in constructing pre- and post-tests which accurately measure student learning
8: more proficiency in the effective use of time in the classroom

APPENDIX L

Relative Importance of Selected Process Variables Among Board Members as Perceived by Those Board Members Who Selected Process Over Content in Importance to Teacher Effectiveness

| Group Identity | Process Variables (Mean) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1* | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| All Respondents | 6.78 | 2.82 | 4.26 | 3.48 | 2.21 | 4.07 | 5.32 | 3.67 |
| All Board Members | 6.76 | 3.77 | 4.50 | 3.74 | 1.80 | 3.85 | 4.90 | 3.09 |
| 1st Yr. Exper. | 7.25 | 3.10 | 4.50 | 4.05 | 2.28 | 4.25 | 4.75 | 2.18 |
| 2-5 Yr. " | 6.73 | 3.90 | 4.24 | 3.67 | 1.96 | 3.56 | 5.05 | 3.02 |
| 6-10 Yr. " | 6.52 | 3.96 | 4.48 | 3.96 | 1.59 | 3.89 | 4.39 | 3.11 |
| 11-15 Yr. " | 6.25 | 3.92 | 4.67 | 4.25 | 1.33 | 3.42 | 4.58 | 3.58 |
| 16+ Yr. " | 7.57 | 3.86 | 5.00 | 4.00 | 1.25 | 4.57 | 5.86 | 3.57 |
| Teach. Experience | 7.70 | 4.05 | 4.65 | 3.46 | 2.41 | 4.55 | 5.90 | 2.71 |
| No Teach. Exper. | 6.55 | 3.70 | 4.46 | 3.81 | 1.66 | 3.69 | 4.68 | 3.18 |
| Male | 6.73 | 3.81 | 4.50 | 3.80 | 1.82 | 3.85 | 4.86 | 3.19 |
| Female | 6.87 | 3.50 | 4.60 | 3.32 | 1.72 | 3.81 | 5.07 | 2.59 |
| Dist. ADA≤1000 | 6.77 | 4.04 | 4.60 | 3.38 | 1.93 | 3.75 | 4.70 | 2.90 |
| Dist. ADA>1000 | 6.74 | 3.34 | 4.33 | 4.31 | 1.57 | 4.00 | 5.24 | 3.42 |

1: more proficiency in the use of audio-visual equipment
2: more proficiency in the use of various teaching techniques
3: more proficiency in the selection and use of instructional strategies
4: more proficiency in techniques of classroom control
5: more proficiency in motivating students to want to learn
6: more proficiency in determining student learning objectives
7: more proficiency in constructing pre- and post-tests which accurately measure student learning
8: more proficiency in the effective use of time in the classroom