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Ohio Principals' Perceptions of Communication Skills, Factors, and Courses Among Criteria for Secondary- Teacher Effectiveness

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In a recent article in *Communication Education*, Curtis, Winsor, and Stephens (1989) presented the results of a study that assessed managers' perceptions of the skills and abilities of greatest significance in the business setting. The authors concluded "It is our belief and the belief of perspective (sic) employers throughout the United States that courses such as public speaking, listening, and interpersonal communication should be included as an oral communication core in (business programs)" (p. 13). The present study seeks to expand their findings and beliefs to a secondary-education setting. Specifically, this paper presents the results of a survey study conducted using a sample of secondary principals from the state of Ohio. The primary research question was "What skills, factors, and coursework are considered of greatest importance by secondary principals as administrators involved in the hiring and evaluation of secondary teachers?" A second question was "How do principals rate communication skills and courses when considering teacher effectiveness?"

The intent of the authors was to examine the perceptions of secondary principals to determine tentative answers to these questions. Principals were chosen because they play a central role in the teacher-effectiveness discussion. As educational administrators, most are directly involved in applying effectiveness standards to their schools. In addition, this study attempts to provide some

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empirical support for the assertions and suggestions of Dewitt, et al., (1991) as they argue for an increased role for oral-communication theory and practice in education, and for Allen and Shaw (1990) who assert that communication behaviors are related to teaching effectiveness in the perceptions of supervisors of teachers.

Literature Survey

The literature on desirable teacher skills and attributes is extensive. Teacher-education programs must choose carefully from this literature the most valuable skills for teachers to acquire and the most useful attributes to be developed or enhanced. A recent Carnegie Forum (1986) issued a call for higher teacher standards and for recruitment of highly skilled teachers. "Teacher education must meet much higher standards. The focus must be on what teachers need to know and be able to do" (p. 69).
What must teachers know and be able to do?

Addressing this question requires at least tentative agreement regarding what constitutes effective teaching--but that agreement escapes current scholarship. "There is less dissent about what constitutes effective teaching in discussion between people outside the profession than there is in the research and evaluation literature" (Wragg, 1984, p. 4). Ornstein (1990) adds: "The literature on teaching is a morass of ill-defined and changing concepts" (p. 78). The confusion for teacher-training programs, teacher evaluators, and teachers themselves regarding effectiveness is increased by a plethora of theoretical and scholarly opinions identified in works that each select differing skills and factors as important. Yet teachers are still selected, hired, and evaluated based on some criteria of effectiveness--criteria that is likely chosen without reliance on empirical research or even a search of the literature (Beecher, 1979; Irwin, 1984).

Teacher Effectiveness and Evaluation

The number of sources that could be consulted for criteria regarding teacher effectiveness and teacher evaluation is seemingly limitless. A few selections are presented here to give readers some sense of the breadth of the literature available and of the possible combinations of effectiveness criteria.

Cooper (1977) edited a handbook focused on the development of nine pertinent classroom-teaching skills. This handbook was organized by chapters that emphasize particular aspects of teaching. Each chapter gives guidance, examples, and suggestions for improvement for each skill area. The authors separated the nine considered skills into three basic elements of teaching: plan; implement; and evaluate. The plan element included skills titled planning and writing instruction objectives.

Under the implement division were presentation skills, questioning, teaching concepts, interpersonal communication, and classroom management, while the evaluate division included observation and evaluation. The authors select these nine, among other possible skills, as crucial to what they call the teacher decision-making process.

Montague's (1987) text on training secondary teachers focuses on eight major skill areas that he calls "fundamental" (p. vi). Such skills represent a foundation on which to build other skills. Montague identifies planning instruction, presenting, refocusing, questioning, teaching concepts and generalizations, test construction, grade assignment, and classroom management as his selection of fundamental skills.

In the literature on teacher evaluation, most sources identify a hierarchy of attributes and skills to be utilized by those who would evaluate teaching performance. Some, such as the well known and often used Flanders (1970) Interaction Analysis System, provide coding schemes listing types of verbal statements or behaviors to check-off when observed. Others provide extensive and detailed evaluation programs, handbooks, or guides to use when evaluating teachers (see Doyle, 1983; Lewis, 1982; Manning, 1988; Medley, Coker, & Soar, 1984; and Popham, 1988). These sources provide extensive and diverse criteria for use in evaluating teaching performance and effectiveness.

A literature review of this sort could continue indefinitely and presents both the reviewer and those who would evaluate teacher effectiveness with an endless mixture of skills and attributes to consider. Somehow, principals select from this vast list of criteria and apply those selections when approaching the tasks of teacher hiring and evaluation.

Purpose

With such diversity and confusion underlying discussions of teacher effectiveness, the authors of the present study sought to question secondary principals regarding their assessment of the importance of a variety of skills, factors, and courses as they hire secondary teachers, evaluate them in the classroom, and assess the most valuable undergraduate courses for their preparation. The goal was to examine perceptions of secondary principals as they consider the notion of effective teachers.

Principals were determined to be a significant resource for such a study as they are, in most cases, directly involved in the hiring and evaluation of teachers in their schools and districts (Shelton, 1989; Short and Spencer, 1989). They are the administrators most responsible for establishing their school's criteria for teacher effectiveness and for promoting that criteria through hiring and evaluation (Weldy, 1979). Principals are typically the people who new graduates will see in the interview process and report to as young teachers. Their perspectives, whether based on scientific research or simply personal opinion, provide a practical aspect to the discussion of requisite skills, factors, and courses. A glimpse into principals' perceptions can provide an additional and useful contribution to the discussion of teacher effectiveness from the vantage point of experienced teachers and teacher-evaluators. Also, it can be of use in preparing prospective teachers to compete in an already competitive job-market.

Method

A questionnaire, patterned after that administered by Curtis, Winsor, and Stephens (1989), was developed asking principals for Likert-type responses to items under three major questions:

1. There has always been a lively discussion over which factors are most important in helping graduating college students obtain employment in education. On a scale of 1 to 5, please rate the following factors or skills in terms of how important you feel each is in evaluating applicants seeking a teaching position with your school. ("EMPLOYMENT")
2. From the position of an in-class evaluator, please rate the factors or skills below in terms of their relevance for successful secondary classroom teaching performance. ("TEACHING PERFORMANCE")
3. There is much discussion over which specific courses of study and or types of classes are of greatest value to college students in preparing for successful secondary teaching. *Beyond those courses required for specialization*, please rate the following courses or types of classes in terms of how important you feel they are in preparing students for teaching positions in your school. ("DESIRABLE COURSEWORK")

Items were listed beneath each question in the left-hand column, with blanks for check marks rating each as of "Very Little" (1) to "of Great" (5) importance to the right. The items for each question were drawn from a collection of criteria identified as significant in the literature as well as through consultation with teaching professionals. Sources like those cited previously were tapped for their selections of effectiveness-criteria, and the most common criteria were selected for inclusion. Sixteen items were listed for the first question, nineteen for the second, and eighteen for the third. Certainly, the items are not inclusive of all possibilities and alternative combinations and selections might be used in further studies. The mailing was sent out under the rubric of the university's education program as the designation of education seemed least likely to bias the respondents. There was no indication on any portion of the mailing (envelope, cover letter, or survey) that the researcher was in communication, and only the lead author's name was given.

The questionnaire was sent to a random sample of 250 secondary, public-school principals in the state of Ohio. Of these, 148 responded with usable data for a 59% return rate. Out of the 148, 89% (132) were male, and all but 7 (5%) of the responses were from school principals, with assistant principals or other school district employee completing those 7. Respondents work in schools encompassing a variety of grade-level combinations. Of the respondents, 38% (57) reported having taught for from 6 to 10 years, with 26% (39) reporting 11 to 15 years, and 18% (26) each for from 0 to 5 years, and for more than fifteen years.

Results

We began our analysis by examining the degree to which there were theoretically relevant empirical clusterings of items within each of the three major questions on the questionnaire with the intent of seeing patterns of thought within each area. To accomplish this, a principal factor analysis using orthogonal, varimax rotation was performed for the responses to each of the three questions: "Employment;" "Teaching Performance;" and "Desirable Coursework." Through a series of iterations, the number of items for each question was reduced, including the elimination of items with weak factor loadings, the physical removal of items defining multiple factors, and refactoring the remaining items. An arbitrary factor loading minimum for the definition of a factor was established at .5.

Table 1 represents the final factor analysis for the first question: "Employment." Principals were asked to rate a list of items on their importance in helping graduating college students obtain employment as secondary teachers. An examination of Table 1 reveals three identified factors: "Experience;" "Communication Skills;" and "Credentials." The items composing each factor are identified by an abbreviated title in the column on the left. The next three columns represent each of the three factors identified in the factor analysis. The column labeled h2 identifies the communality that each item shares with the factor structure. Finally, the mean and standard deviation of each item is presented. Tables 2 and 3 are similar in design.

Table 2 represents the final factor analysis for the "Teaching Performance" question. Here principals were asked to rate the listed skills in terms of their relevance for successful secondary classroom teaching performance. An examination of Table 2 reveals three identified factors with eleven of the original nineteen items defining their respective factors. The three factors were titled "Communication," "Pedagogy," and "Style." Note that the item "Interaction Skills," with a factor loading of .492, was retained because of its nearness to .5 and its consistency of content with the other items in that factor.

Table 1. Factor Analysis of "Employment Skills" Items

	I Experience	II Communication Skills	III Credentials	h2	Mean	Sd
ITEMS						
Leadership in Activs.	**.849**	.189	.111	.768	3.14	.91
Participation in Acts.	**.820**	.169	.072	.706	3.22	.94
Employment	**.723**	.171	.144	.573	2.62	.97
Work Experience	**.536**	-.131	.126	.321	3.45	.83
Oral Communication	-.125	**.759**	.106	.603	4.62	.52
Writing Skills	.275	**.735**	-.005	.616	4.09	.68
Enthusiasm	.049	**.658**	.087	.443	4.53	.60
Listening Ability	.412	**.557**	-.083	.487	4.25	.66
Degree Held	.096	-.005	**.700**	.499	3.58	.92
Recommendations	.076	.241	**.602**	.426	3.66	.93
Resume	-.001	-.063	**.601**	.365	3.63	.73
College Attended	.203	.039	**.554**	.350	2.48	.91
Factor Alpha	.755	.663	.490			
Factor Mean	3.11	4.37	3.34			
Factor Sd	.70	.44	.55			

Table 2. Factor Analysis of "Teaching Performance" Items

	I Communication	II Pedagogy	III Style	h2	Mean	Sd
Items						
Oral Communication	**.808**	-.166	.023	.681	4.62	.53
Writing Skills	**.692**	.210	.087	.530	4.07	.68
Supportive Climate	**.557**	.212	.168	.383	4.01	.76
Interaction Skills	**.492**	.292	.216	.374	4.39	.65
Preparation for Class	.146	**.733**	-.149	.580	4.59	.55
Student Appraisal Skl	.132	**.683**	.058	.487	4.01	.62
Persistence	.101	**.632**	.301	.500	4.18	.62
Use of Humor	.084	.037	**.771**	.602	4.04	.68
Physical Appearance	.242	-.137	**.706**	.576	3.64	.71
Flexibility	.180	.369	**.548**	.469	4.13	.67
Disciplinary Skills	-.033	.476	**.536**	.516	4.47	.56
Factor Alpha	.598	.566	.634			
Factor Mean	4.27	4.26	4.07			
Factor Sd	.44	.43	.45			

Table 3. Factor Analysis of "Desirable Coursework" Items

I Academic Subjects
II . Classroom Management
III . . Professional Presentation
IV . . . Teaching Skills

Courses	I	II	III	IV	h2	Mean	Sd
Life Science	**.887**	.168	.143	-.049	.837	3.10	.77
Political Science	**.877**	.131	.118	.044	.802	3.08	.79
Economics	**.768**	.277	-.138	.192	.722	2.96	.70
Mathematics	**.757**	.096	.122	.182	.630	3.22	.70
Leadership	.092	**.781**	.030	.245	.679	4.19	.80
Small Group Comm	-.061	**.760**	.031	.122	.598	4.11	.79
Mass Comm.	.283	**.574**	.256	.067	.479	3.65	.81
Management	.317	**.570**	.146	.026	.447	3.71	.89
Computer	.220	**.552**	-.063	.024	.357	3.92	.77
Writing	.023	.160	**.811**	.043	.686	4.00	.73
Public Speaking	.154	-.001	**.713**	.195	.570	4.04	.81
Educational Phil	.202	.251	-.108	**.748**	.676	3.06	1.07
Teaching Methods	-.155	.306	.242	**.711**	.682	4.32	.85
Curriculum Dev.	.212	-.081	.254	**.619**	.499	3.53	.77
Factor Alpha	.878	.725	.480	.571			
Factor Mean	3.09	3.92	4.02	3.63			
Factor Sd	.64	.56	.62	.67			

Table 4. Analyses of Variance for Factors From the "Employment Skills," "Teaching Performance," and "Desirable Coursework" Questions.

(Factors are presented here in rank order by mean but are numbered by their rank order from Table 5.)

Differences in **bold type** are significant at the .05 level as computed by the Scheffe F-test.

"Employment Skills"

	1	8	9	Mean
1. Communication Skills	-			4.37
8. Credentials	**1.03**	-		3.34
9. Experience	**1.26**	**.23**	-	3.11

"Teaching Performance"

	2	3	4	Mean
2. Communication	-			4.27
3. Pedagogy	.01	-		4.26
4. Style	**.20**	**.19**	-	4.07

"Desirable Coursework"

	5	6	7	10	Mean
5. Professional Presenation	-				4.02
6. Classroom Management	.10	-			3.92
7. Teaching Skills	**.39**	**.29**	-		3.63
10. Academic Subjects	**.93**	**.83**	**.54**	-	3.09

Table 5. Analysis of Variance of the Factors From All Three Questions Combined. Overview.

Factors are Rank Ordered by Mean Score.

Rank	Factor - Question
1.	Communication Skills - Employment Skills
2.	Communication - Teaching Performance
3.	Pedagogy - Teaching Performance
4.	Style - Teaching Performance
5.	Professional Presentation - Desirable Coursework
6.	Classroom Management - Desirable Coursework
7.	Teaching Skills - Desirable Coursework
8.	Credentials - Employment Skills
9.	Experience - Employment Skills
10.	Academic Subjects - Desirable Coursework

Mean Differences

	1	2	3	4	5	6	7	8	9	10	Mean
1.	-										4.37
2.	.10	-									4.27
3.	.11	.01	-								4.26
4.	**.30**	.20	.19	-							4.07
5.	**.35**	.25	.24	.05	-						4.02
6.	**.45**	**.35**	**.34**	.15	.10	-					3.92
7.	**.74**	**.64**	**.63**	**.44**	**.39**	**.29**	-				3.63
8.	**1.03**	**.87**	**.86**	**.67**	**.62**	**.52**	**.29**	-			3.34
9.	**1.26**	**1.16**	**1.15**	**.96**	**.91**	**.81**	**.52**	.23	-		3.11
10.	**1.28**	**1.18**	**1.17**	**.98**	**.93**	**.83**	**.54**	.25	.02	-	3.09

Differences in bold type are significant at the .05 level as computed by the Scheffe F-test.

The final factor analysis for the third question, "Desirable Coursework," is represented in Table 3. Principals were asked to rate coursework that they considered of greatest value in preparing successful secondary teachers. Four factors were defined from their responses with fourteen of the original eighteen items retained and defining their respective factors. The four factors were titled "Academic Subjects," "Classroom Management," "Professional Presentation," and "Teaching Skills."

In light of the factors that emerged from the factor analyses conducted, a series of scales were constructed for the factors related to each of the major questions. These scales were designed to provide a single measure of each of the factors represented in the analyses. To do this, the values of the items in each factor were summed and divided by the number of items. A Cronbach's alpha was then calculated for each scale (Zeller & Carmines, 1980). The values of these respective alphas are presented in Tables 1-3 with factor means and standard deviations presented beneath them. The alphas range from .878 to .480.

Table 4 presents the scale means

for each major question, as rank ordered by their means, and a comparison of these mean scores. Note that each mean is placed according to its relative rank within each of the questions, but each is numbered according to its rank within Table 5. Table 5 lists all ten scales, again rank ordered by their means and providing an overall comparison of mean scores.

A repeated measures analysis of variance on the three "Employment Skills" scales yielded significant differences among the means ($F = 273.602$; $df = 2,288$; $p < .0001$). These differences accounted for 65.5% of the variance of the scales; such a difference is analogous to a correlation coefficient of .809 and represents real and strong indications of the relative importance of these scales to the respondents. The principals in this study perceive the "Communication Skills" items to be the strongest employment skills by a substantial margin; "Credentials" are perceived as somewhat more important than "Experience" items. This would seem to indicate that principals see communication skills as the key attributes separating candidates for teaching positions. One might speculate that this is so because young teachers have relatively similar credentials and limited previous experience, thus principals may gauge effectiveness and project success based on skills that can be observed during the hiring process. Other possible explanations might be explored through additional theorizing and research.

A repeated measures analysis of variance on the three "Teaching Performance" scales yielded significant differences among the means ($F = 15.432$; $df = 2,288$; $p < .0001$). These differences accounted for 9.7% of the variance of the scales; such a difference is analogous to a correlation coefficient of .311 and represents real but modest indications of the relative importance of these scales to the respondents. By a slight margin, the principals in this study perceive "Style" to be less important than "Communication" and "Pedagogy." It would appear that principals found all of the skills within these factors to be of relevance and importance to effective teaching. The inclusion of communication skills among other pedagogical skills indicates, again, their importance to in-class performance. Though not significantly more important, communication skills appear to be at least as important to effective teaching as other pedagogical skills in the minds of subjects.

A repeated measures analysis of variance on the four "Desirable Coursework" scales yielded significant differences among the means ($F = 91.650$; $df = 2,288$; $p < .0001$). These differences accounted for 39.7% of the variance of the scales; such a difference is analogous to a correlation coefficient of .630 and represents real and strong indications of the relative importance of these scales to the respondents. The principals in this study perceive "Professional Presentation" and "Classroom Management" courses as most important, followed by "Teaching Skills" courses. In the principals' view, the "Academic Subjects" courses were least important. "Professional Presentation" included writing and public speaking courses, while "Classroom Management" included courses in leadership, small group, mass communication, management, and computers. The inclusion of communication courses in both of these factors indicates their prominence in the thinking of principals as they consider courses most desirable in teacher-training.

A repeated measures analysis of variance on all ten scales analyzed simultaneously yielded significant differences among the means ($F = 121.572$; $df = 9.1197$; $p < .0001$). These differences accounted for 47.8% of the variance of the scales; such a difference is analogous to a correlation coefficient of .691 and represents real and moderately strong indications of the relative importance of these scales to the respondents.

The values in the matrix in Table 5 represent the differences between scale means. Thus, the mean of 4.37 for "Communication Skills - Employment" is .10 higher than the mean of 4.27 for "Communication - Teaching performance." Note that some of the differences that were significant in Table 4 are not significant in Table 5. This is due to differences in the estimates of the within-subjects residual variance in the analyses with different variables included. This presentation of the results allows a view of the overall thinking of respondents as they consider the idea of effective teaching. The principals in this study perceive "Communication Skills - Employment," "Communication - Teaching Performance," and "Pedagogy - Teaching Performance" to be the most important characteristics, followed by "Style - Teaching Performance," "Professional Presentation - Desirable Coursework," and "Classroom Management - Desirable Coursework."

Discussion

This study provides documentation of the importance of communication skills in the minds of the principals we surveyed. Two of the ten scales clearly reflected communication skills. These scales, "Communication Skills - Employment" and "Communication - Teaching Performance," were rated first and second among the ten scales. Thus, the unequivocally communication factors were the highest rated overall in importance by the respondents. The "Professional Presentation - Desirable Coursework" and "Classroom Management - Desirable Coursework" scales also included substantial communication items. These two scales were ranked fifth and sixth among the ten scales; thus, communication items figured promi-

nently in four of the top six scales. This examination of the mean scores, both within each question and overall in survey responses, indicate that secondary principals in Ohio perceive communication skills and courses to be of top priority in their assessment of teacher effectiveness.

Implications

The data from this study indicate that Ohio principals perceive a powerful relationship between communication skills and effective teaching. Yet many students receive only minimal training in communication skills during their undergraduate years. An unscientific and informal overview of printed secondary-education certification materials obtained from 48 states (excluding Alaska and Georgia due to a lack of updated materials) yielded a detailed mention of relevant communication skills in but two states' general certification requirements. Massachusetts and Tennessee provided thorough descriptions of the communication expectations for their secondary teachers. Several states listed requirements of three semester credits in public speaking/speech, three semester credits in interpersonal communication, or nine semester credits in oral and written expression among their general requirements. At least nineteen states require the NTE Communication Skills Core Exam--this exam uses multiple-choice questions to cover knowledge of reading, writing, and listening skills. Essentially, according to the provided materials, the inclusion of a significant component of communication coursework is left to the discretion of individual education programs in most states.

It is important to note that it was not the authors' intention to establish the final criteria essential to effective teaching through this study. Rather, it was hoped that this research would further encourage education programs and communication programs as they rethink the role of communication theory and skills in the training and practice of secondary educators. Communication and education programs might more effectively interact to create a curriculum that involves students directly in the development of communication skills. Courses in instructional communication, public speaking, organizational communication, small group communication and leadership, mass communication, writing, and interpersonal communication might be developed that meet the unique needs and challenges of educators and that fit carefully within an already demanding curriculum. School districts, as well, might work to provide ongoing communication workshops and seminars for teachers. Additionally, state certification agencies should research and consider carefully the role of communication in effective teaching.

An acknowledged limitation of this study is that it was conducted using principals from only one state

(Ohio). While this limits the ability to extrapolate, the authors don't believe that it reduces the value of the findings. Respondents were from rural and inner-city schools, diverse in size, minority composition, and district economic status. It seems likely that there would be variation if this study was replicated on a national basis, but it is doubted that the core findings would be disconfirmed. The authors recommend for further research replication of this study within other states and on a national basis. Also, it would be of value to study the perceptions of teachers themselves, considering the criteria they espouse toward being more effective in the classroom. We believe that such replication studies in varying areas and of different populations would show that perceptions of the central role of communication in education are not unique to this one state or study.

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