To the Graduate Council:

I am submitting herewith a dissertation written by Donald Gordon Rhodes entitled "Teaching Competencies Identified by Tennessee Community College Administrators." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Curriculum and Instruction.

Earl M. Ramer, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor
Graduate Studies and Research

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TEACHING COMPETENCIES IDENTIFIED BY TENNESSEE COMMUNITY COLLEGE ADMINISTRATORS

A Dissertation

Presented for the

Doctor of Education

Degree

The University of Tennessee, Knoxville

Donald Gordon Rhodes

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ABSTRACT

Present-day community colleges fill a wide range of postsecondary educational needs. They are primarily teaching institutions, but because their student populations are so diverse, teacher selection and evaluation is a difficult task. The study sought to determine which instructional competencies ought to be essential for teachers in the State of Tennessee's ten year old system of community colleges.

The study utilized a modified Delphi technique that included three rounds of input and group feedback by means of opinionnaires mailed to 74 individuals who were the presidents, academic deans, or division heads of the ten Tennessee community colleges. Each person had some responsibility for evaluation of teaching personnel for employment.

Panelists were asked in each round to rate as to importance a list of competency statements. Consensus was determined at the end of the third round by collapsing data for the number of items that appeared in two adjacent choice categories of the rating scale. A final listing of 51 statements was ranked by mean score according to seven groups (presidents, deans, and the division heads for humanities, social sciences, science-mathematics, vocational-technical education, and continuing education). These same statements were ranked similarly according to three instructional program types: (1) transfer, (2) vocational-technical, and (3) continuing education. Finally, 3,213 t test comparisons were made concerning agreement among 21 intergroup comparisons of the 51 statements by the three program types.

Results of the study indicated high intragroup and intergroup agreement concerning the 51 statements. Rankings within the seven groups and three programs were consistent. Only 12 of the t test scores were found significant at the .01 level of probability. It was concluded that statewide consensus had been attained and that the Delphi method as the tool of inquiry had been used successfully to gain convergent expert opinion.

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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

I. GENERAL INTRODUCTION

Overview of the Community College

Today's community college originated sometime before the end of the nineteenth century in the mind of William Rainey Harper, president of the University of Chicago. He envisioned a new type of postsecondary school which would offer the first two years of the then typical liberal arts program of the four-year college or university. The "junior college," as Harper christened it, was to be described many years later by Parker[1] as:

> . . . a makeshift expedient to remake the high school into an effective six-year university preparatory institution. The junior college began as . . . the stepchild of higher education, its uncertain baby, and its enfant terrible.

After approximately 75 years of controversy and metamorphosis, the junior college gradually evolved into a two-year institution of higher education, and when under public control, has increasingly come to be known as the community college. Generally, there are five distinct patterns of administrative organization for today's community colleges. Some are completely autonomous and under local control. Others may be organized as a part of the public school system of a city or community.

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[1]Franklin Parker, "The Community Junior College-Enfant Terrible of American Higher Education: A Bibliography of 225 Doctoral Dissertations," Junior College Journal, 32:193, December, 1961.

These types are under the general supervision of a superintendent of schools with a specifically designated administrator to direct them. A third pattern of organization is the evening school which is also a part of the public school system but without benefit of the usual administrative official for the individual school. Another organizational pattern makes the community college a branch or extension division of a senior institution. The fifth pattern of organization is the public community college with a separate administration and organized along the lines found in typical senior colleges and universities.[2]

These tax-supported institutions have programs geared to the needs of the individual learner and the community in which he lives.[3] Their programs fall into four major categories: (1) traditional transfer or general education, (2) terminal or occupational education, (3) continuing and adult education, and (4) guidance and counseling.[4] Community colleges offer short courses, institutes, conferences, clinics, concerts, exhibits, and the like, all designed to relate to the needs of the community. Since these programs pertain to a specific geographic or political area and the population within it, the term "community college"

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[2]Conwell Gilmore Strickland, "An Analysis of Administrative Policies Affecting the Faculty Personnel of the Public Junior College in the United States" (unpublished Doctoral dissertation, The University of Texas, Austin, 1950), p. 4.

[3]James W. Reynolds, The Junior College (New York: The Center for Applied Research in Education, Inc., 1965), p. 8.

[4]E. K. Fretwell, Jr., "Issues Facing Community Colleges Today," Today's Education, 57:46, October, 1968.

more accurately describes the broad concepts and functions of the present-day institution.

For many years, educators were unable to agree whether this new institution was on the secondary level or a part of higher education. Although closely related to the comprehensive high school in terms of its function, the community college is a full-fledged member of the family of higher education institutions. Because it is an institution of higher learning, its accreditation is the same as that granted to four-year colleges and universities. It generally grants "associate degrees" in arts, science, and applied science. The arts and science associates are basically the first two years of study leading to the baccalaureate in liberal arts. The applied science associate is granted on completion of one of a group of vocationally oriented curricula which are not designed for transfer to four-year colleges or universities.[5]

The community college enjoyed unprecedented growth and expansion after the mid-1940's. Presently, there are 733 public two-year colleges in the United States with an enrollment of 2,552,564 students.[6] The Carnegie Commission on Higher Education recommended that community colleges should be made available, within commuting distance, to all persons who are high school graduates or are over 18 years of age.

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[5]Richard Magagna, "The Community College: Source of a Liberally Educated Citizenry," The Journal of General Education, 25:203-204, October, 1973.

[6]W. Vance Gant and C. George Lind, Digest of Educational Statistics: 1974 Edition (Washington: United States Government Printing Office, 1975), p. 90.

This recommendation created a need for approximately 1,061 community colleges across the nation by 1980.[7]

The Community College in Tennessee

Tennessee's Eighty-fourth General Assembly ushered in a new educational era for the citizens of the state when it authorized, in 1965, the establishment of a state system of public community colleges. This action was an outgrowth of a $200,000 appropriation in 1963 by the state legislature designed to implement the "Pierce-Albright Report."[8] Presented in 1957 to the state Legislative Council, this "Report on Higher Education in Tennessee" also recommended the establishment of an institution of higher education within commuting distance of every college age person in the state.

Upon recommendation of Commissioner J. Howard Warf of the State Department of Education and Governor Frank Goad Clement, three state community colleges were authorized initially; one in each of the three geographic or "grand" divisions of the state (west, middle, and east) and in areas not then served by public colleges. In 1966 Columbia State at Columbia in Middle Tennessee opened. Jackson State at Jackson in West Tennessee and Cleveland State at Cleveland in East Tennessee were opened in 1967.

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[7]The Carnegie Commission on Higher Education, The Open-Door College: Policies for Community Colleges (New York: McGraw-Hill Book Company, 1970), p. 1.

[8]Truman M. Pierce and A. D. Albright, Public Higher Education in Tennessee (Nashville, Tennessee: George Peabody College for Teachers, 1957).

Although the state plan for higher education envisioned a total of 12 community colleges in Tennessee,[9] there are only ten in operation at the present. Dyersburg State at Dyersburg (west), and Motlow State at Tullahoma (middle) began in 1969, followed by Walters State at Morristown (east) in 1970. Roane State at Harriman (east) and Volunteer State at Gallatin (middle) opened in 1971, followed by Shelby State at Memphis (west) in 1972.[10] Previously existing Chattanooga State Technical Institute (east) became the tenth member of Tennessee's community college system in 1973.

All of these institutions were organized to provide the four basic types of educational programs characteristic of the modern-day community college. Conceived as a means to equalize postsecondary educational opportunities for Tennessee's college age population, they are characterized also by their low costs, a variety of educational opportunities, open-door admissions, and close proximity to approximately 95 percent of the college age population in the state.[11]

Because Tennessee's community colleges serve so broad a spectrum of needs, the teachers who staff them must represent the best interests of both the student and the taxpayer. Consequently, the process of

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[9]Tennessee Higher Education Commission, Higher Education for Tennessee's Future (Nashville, Tennessee: Tennessee Higher Education Commission, 1973), p. 40.

[10]Ralph G. Hall, "An Emerging System of State Community Colleges in Tennessee," Tennessee Education, 2:11, Summer, 1971.

[11]Tennessee Higher Education Commission, Toward a Stronger System of Higher Education (Nashville, Tennessee: Tennessee Higher Education Commission, 1970), pp. 6-7.

selecting effective teaching personnel is not only a difficult, but also a cardinal one. The success or failure of Tennessee's fledgling system of community colleges could well rest on the outcomes of this process.

II. THE PROBLEM

Statement of the Problem

The lack of some kind of definitive statement concerning criteria of competence for effective instruction at the community college level impairs the selection process for such teachers within the state of Tennessee.

To elaborate, the archetypal community college requires teachers who not only are accomplished in a variety of subjects which are traditionally academic, but also those who are competent in areas not normally expected of college teachers. These teachers must have ability to organize instructional materials and resources which did not formerly exist. They must have expertise in an increasing number of occupational areas which require schooling beyond high school but not university training. Such exemplary teachers need an understanding of youth and adults who have encountered difficulty in their past educational experiences. To that point Cooper[12] wrote:

> Now, more than ever before, the public at large and the young in particular pose penetrating questions for institutions of higher learning. Teachers are called upon to defend the relevance of the subject matter they offer, to

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[12]Russell Cooper, "Introduction: The College Teacher Today," in William H. Morris (ed.), Effective College Teaching: The Quest for Relevance (Washington, D.C.: The American Association for Higher Education, 1970), p. xi.

> adopt new styles and techniques in teaching an ever-increasing number of students with varying backgrounds and disparate expectations, and to consider the influence, actual and potential, of higher education upon the social problems of the day.

In spite of the inherent need for student-oriented teachers in the community college, many of the persons who accept teaching positions within them do so without the slightest idea of the demands of their new teaching level. To compound the problem, according to Park,[13] administrators who are responsible for selecting and hiring teaching personnel frequently are unable to articulate exactly what they are looking for in an applicant. Typically, they are more concerned with the prospective teacher's preparation in content areas at an accredited college or university and/or possession of a few years of teaching or other work experience. He noted, "The major criterion seems to be whether or not he has a master's degree in the subject taught."

According to Ogilvie and Raines,[14] the nature of the community college implies the competencies requisite for its teachers. In that regard, they wrote:

> Since the community college is neither a secondary school nor a senior insitution, its teachers must possess some competencies and characteristics that differentiate them from instructional staff members of these two types of institutions.

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[13] Young Park, "Teacher Preparation Programs and the Junior College," Junior College Research Review, 5:1, January, 1971.

[14] William K. Ogilvie and Max R. Raines, Perspectives on the Community-Junior College: Selected Readings (New York: Appleton-Century-Crofts, 1971), p. 436.

What are the competencies that contribute to effective community college teaching? According to Thornton,[15] there does not appear to be any adequate standard for defining such a person. Concerning that problem, Blocker[16] declared:

> It seems reasonable, therefore, to assume that if community colleges are to enjoy broader understanding and acceptance from the general public and professional educators, a fruitful analysis could be made of . . . a description of the kinds of qualities needed in a community college teacher.

III. PURPOSE OF THE STUDY

Statement of the Purpose

The central purpose of this study was to identify those competencies considered desirable in effective teachers as agreed upon by those administrators responsible for selecting personnel for the community colleges of the state of Tennessee.

One of the most important responsibilities of the community college administrator is the selection of instructors who can carry on effectively the unique program of the institution. Because the community college offers a variety of programs designed to meet the needs of each individual student as well as to relate to the needs of the community, it requires a very special kind of teacher. With that thought in mind, this study sought to answer the following questions:

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[15]James W. Thornton, Jr., The Community Junior College (New York: John Wiley and Sons, Inc., 1960), p. 135.

[16]Clyde E. Blocker, "Are Our Faculties Competent?" Junior College Journal, 36:13, December-January, 1965-1966.

1. What are the competencies considered essential for effective community college teaching in the state of Tennessee?

2. What are the hierarchal values of each competency?

3. To what extent is there intragroup consensus as to the importance of those competencies among groups of individuals routinely assigned the task of selecting and evaluating community college teachers in the state of Tennessee?

4. To what extent is there agreement concerning those competencies among groups of persons normally charged with the selection and evaluation of community college teachers in the state of Tennessee?

IV. THE HYPOTHESIS

Questions 1, 2, and 3 concerning the purpose of the study were answered without statistical analysis; however, in order to answer question 4, a null hypothesis was formulated and tested through use of an approximated t test for comparison of intergroup means. Differences between means were significant only when the .01 level of probability had been satisfied, thereby indicating a true difference between two groups and that the null hypothesis should not be accepted inasmuch as there could be only one chance in 100 that the observed differences occurred accidentally. Herewith is the statement of hypothesis:

H_o: There is no significant difference between mean program type scores for each competency statement among groups

of persons normally charged with the selection and evaluation of community college teachers in the state of Tennessee.

V. IMPORTANCE OF THE STUDY

Significance of Staff Selection

Community college leaders have frequently addressed the important issue of staff selection. Among them, Hillway[17] maintained that staff selection has been a significant problem which has perplexed community college administrators ". . . for at least the past quarter of a century." Dealing with the same concern in 1947, Cloud[18] waxed eloquent when he penned these emphatic lines:

> Taken in total, then it is clear and undeniable that in junior colleges, as in other school divisions, teacher selection can either make or break [the institution]. In junior colleges, as elsewhere in the educational world, the old saying holds good: "As is the teacher, so is the school."

Along the same lines, Gleazer,[19] president of the American Association of Community and Junior Colleges, proclaimed staff selection to be ". . . a legitimate and growing concern of national consequence."

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[17] Tyrus Hillway, The American Two-Year College (New York: Harper and Brothers, 1958), p. 185.

[18] A. J. Cloud, "Selecting Junior-College Instructors," California Journal of Secondary Education, 22:282, May, 1947.

[19] Edmund J. Gleazer, Jr., "Preparation of Junior College Instructors," in B. Lamar Johnson (ed.), New Directions for Instruction in the Junior College (Los Angeles: Junior College Leadership Program, School of Education, University of California, 1965), p. 26.

Similarly, Eldridge[20] described staff selection as the fundamental problem facing the present-day community college. Indeed, if community colleges are to meet the needs of the individual student in light of their commitment to teaching, they must be able to select effective instructional personnel.

Effective staff selection involves consideration of the myriad components of the total community college program, among which are the purposes, goals, and objectives of the individual institution; the instructional programs offered; the subject matter to be taught; local and/or system-wide budgetary matters; political implications; and the like. Selection is therefore influenced by numerous "external environmental presses" which arise out of both the provincial and global communities within which each institution exists.[21]

Other factors also affect the selection process. However, Cohen and Brawer[22] reduced them to four essential and distinctive elements: (1) the individual teacher applicant, (2) the prospective employer/ administrator, (3) the interaction between the prospective employer/ administrator and the prospective employee/teacher, and (4) the entire occupational environment. The success of the selection process seems to

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[20]Donald A. Eldridge, "New Directions for the Two-Year College," Junior College Journal, 38:11, September, 1967.

[21]Young Park, Junior College Faculty: Their Values and Perceptions (Washington, D.C.: American Association for Junior Colleges, 1971), p. 51.

[22]Arthur M. Cohen and Florence B. Brawer, Confronting Identity: The Community College Instructor (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972), p. 121.

be contingent upon mutual understandings between the teacher and the administrator as to those aspects of professional preparation, experience, personal characteristics, and instructional skills which contribute to the art of effective teaching.

Training and Degree Most Prevelant Standard

Since the inception of the junior college, administrators have struggled over criteria for selection of teachers. According to Eells,[23] they have doubted the value of the doctorate from the very beginning and in the early days gave very few positions to teachers holding this degree. In that regard, he wrote: "The Ph.D. Degree is essentially a research degree, indicating ability in original investigation, and not in teaching, which is the prime requisite in the junior college." Nonetheless, many community college administrators are tempted to ape their four-year and university brethren who typically seek more "cosmopolitan" faculties. In Blocker's[24] opinion, community college administrators often fear that their teaching staff will not "glitter with all the accoutrements of academic respectability" unless it is sprinkled liberally with doctorates who, unfortunately, may or may not be effective teachers. Eble[25] commented on this phenomenon with cutting precision:

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[23]Walter Crosby Eells, The Junior College (Boston: Houghton Mifflin Company, 1931), p. 403.

[24]Blocker, op. cit., p. 12.

[25]Kenneth E. Eble, The Recognition and Evaluation of Teaching (Salt Lake City, Utah: Project to Improve College Teaching, 1970), p. 3.

> Today's doctor of philosophy has a very private practice, enclosed by the specialized courses he can call his own and protected by academic tradition and superstitions. Among these are beliefs that the Ph.D. is a license to teach; that scholarly assiduity ensures good teaching or makes up for bad; that the popular teacher can't be profound and the profound one popular; that teaching can't be taught; and that, however deficient a professor may appear, he will turn out to be, for some student, some time, a superior teacher.

All too often community college teachers are hired because they are able to demonstrate fluently their cognitive skills and possess an impressive experiential record. Nonetheless, expertise in cognitive skills is most ineffective when unaccompanied by the necessary affective instructional skills. DeWitt made that point rather bluntly: "Such emotional paralytics contribute to the alientation of youth from the teacher, from the subject, and from the educational institution."[26]

Encompassing the community college in its section on undergraduate teaching, the Committee on the Student in Higher Education[27] painted a dreary picture when it reported:

> . . . it is no exaggeration to say that the majority of undergraduate instructors today have little or no natural or acquired skills to facilitate the development of the adolescent personality and in integrating the cognitive with the other dimensions of human growth. Whatever their professional skills and reputations may be, faculty members are simply not very good at teaching students.

Unfortunately community college administrators sometimes seem to feel that subject matter specialists with master's degrees are best for

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[26]Gerald DeWitt, "How to Identify Humanistic Teachers," NASSP Bulletin, 57:19, December, 1973.

[27]Committee on the Student in Higher Education, The Student in Higher Education (New Haven, Connecticut: The Hazen Foundation, 1968), p. 52.

community college teaching. However, teaching is a skill that must be learned. Mastery of discipline and/or a master's degree will not necessarily qualify an individual as a teacher, much less an effective one.[28]

The common denominator for selection of community college teacher applicants has been the training received at an accredited four-year college or university. However, students with intense subject matter specialization, but without appropriate teacher training, are graduated by the thousands from such institutions each year without the competencies necessary to teach anything much less the discipline in which they were steeped. If the community college is to maintain its teaching mission, it must do more than collect a coterie of writers, researchers, consultants, and the like; it must attract and hold dedicated and competent teachers.[29] In a discussion of the kinds of preparation desirable for college teachers, Smith[30] asserted: ". . . the teacher who has received the traditional training of the graduate school has not been adequately trained for the demands of the junior college."

Expectations and Performances Incongruent

Because of the diversity of backgrounds from which community college teachers are drawn, there is little doubt that they know less about what is expected of them than do the administrators who select and hire them.

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[28]Park, "Teacher Preparation . . .," op. cit., p. 2.

[29]Ibid., p. 1.

[30]Harlie L. Smith, "Better Education of College Teachers—The Junior College," The North Central Association Quarterly, 23:392, April, 1949.

Unfortunately, community college teachers are expected to possess ". . . a preposterous array of competencies . . ."[31] which makes doubly difficult the internalization of their role perceptions. In that regard, Cohen and Brawer[32] wrote:

> . . . if the prospective teacher is conscious of the many parts of his own being as well as the various roles he will play, if he can anticipate the kinds of colleagues he will meet and the many demands made by the teaching environment, he will be better able to assess himself and the situation realistically.

Rosenthal and Jacobsen[33] maintained that a teacher's expectations are related to his teaching behavior and its subsequent effect on student achievement. Although their thesis focused on learner outcomes as related to teacher behavior, it seems logical that a teacher's expectation or understanding of the role he must perform would have an even more powerful effect on his ultimate behavior.

In that same vein, Getzels and Guba[34] reasoned that individual roles are linked to the institution of which they are a part. To elucidate, a social system is defined by its institutions and by the individual's inhabiting them. In turn, the individuals are defined by

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[31]William Clark Trow, Teacher and Technology: New Design for Learning (New York: Appleton-Century-Crofts, 1963), p. 140.

[32]Cohen and Brawer, op. cit., p. 130.

[33]R. Rosenthal and L. Jacobsen, Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development (New York: Holt, Rinehart and Winston, 1968).

[34]Jacob W. Getzels and Egon G. Guba, "Social Behavior and the Administrative Process," The School Review, 65:426-29, Winter, 1957.

roles and personalities, respectively. Roles and personalities are defined by role expectations and need disposition. Observed behavior on the part of any individual, results from the function of these dimensions.

Conflicts between administrators and faculty members frequently stem from their incongruent perceptions of role expectations and need disposition. According to Cohen and Brawer,[35] role expectations or role demands are what the teacher is supposed to do to carry out the formal educational program. Need disposition or role performance is what the instructor actually does. Although performance is generally determined by demands, it is not always congruent with them. They observed, "A major determinant of role performance is the teacher's perception of role demands. He may—and frequently does—see them very differently from the administrator and those who write the regulations."

Park[36] contended that teachers behave within a frame of reference that contains many variables, among them role perception. He maintained that a teacher reacts to his perception of the environment and thus, for each individual, reality is relative to what is perceived. Therefore, if reality varies with individual perceptions, teaching roles will vary accordingly. Going further, Theobald[37] wrote:

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[35]Cohen and Brawer, op. cit., p. 57.

[36]Park, Junior College . . . , op. cit., p. 6.

[37]Robert Theobald, An Alternative Future for America II (Chicago: The Swallow Press, Inc., 1970), p. 165.

> It is insufficiently recognized that "self-fulfilling prophecy" is one of the most fundamental of all realities: one achieves what one desires. Thus, analyses of what "might be" tend to create the possibilities which are discussed.

Lack of Adequate Criteria

Cohen and associates[38] defined "good teaching" as the process of causing learning. They maintained that this focus on learning and the process of instruction is paramount to the community college. It takes a dedication to the outcomes of instruction rather than to the processes themselves. They felt that the concept of instructional accountability says in effect, "We want more than equality of educational opportunities; we want some degree of equality of educational results."

If educators are to be held accountable for their work, their performance must be evaluated against some sort of predetermined competency indicative of effective teaching. The more specific these expectations, job descriptions, competencies, or what-have-yous, can be, the less likelihood there will be of confusion concerning effective instruction. To wit, Rosencranz and Biddle[39] observed:

> Before competencies can be judged, then, an agreed-upon set of goals must first be established for the educational system (at least in the local community). If there are no agreed-upon goals, one man's competent teacher may be another man's ineffective nincompoop.

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[38] Arthur M. Cohen et al., A Constant Variable (San Francisco: Jossey-Bass Inc., 1971), pp. 116-17.

[39] Howard A. Rosencranz and Bruce J. Biddle, "The Role Approach to Teacher Competence," in Bruce J. Biddle and William J. Ellena (eds.), Contemporary Research on Teacher Effectiveness (New York: Holt, Rinehart, and Winston, 1964), p. 240.

Lewis[40] concurred that clarification of role performance is essential. He referred to "professional skill objectives," or clearly defined statements which describe the critical aspects of the typical teaching performance. Such objectives must be mutually agreed to by the teacher and the administrator.

Before such agreement can eventuate, both employer and employee must have internalized their own standards by which they wish to measure teaching effectiveness. Therein lies the difficulty. All too often neither individual has achieved such insight. Consequently, both administrator and teacher seek concurrence in an indiscriminate manner. Obviously little good can be accomplished under such conditions. Cohen and Brawer[41] spoke to that point:

> The absence of systematic information about the specific conditions that applicants will meet can make selection a haphazard exercise. Without adequate descriptions of the major activities intrinsic to the profession, the selector must rely on vague notions of the types of people who seem to be likely to teach well. . . . Without specific criteria against which his predictions may be validated, even the best selection procedures become exercises in the assessment of people along ambiguous, often irrelevant, dimensions that blatantly ignore any consideration of future evaluation.

Community college administrators do not appear to have adequate standards for defining the effective community college teacher. In spite of clearly stated institutional purposes, goals, and objectives, they

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[40]James Lewis, Jr., Appraising Teacher Performance (West Nyack, N.Y.: Parker Publishing Company, Inc., 1973), pp. 104-5.

[41]Cohen and Brawer, op. cit., p. 122.

have difficulty in articulating exactly what they expect of their teaching staff. According to Park,[42] the lack of stabilized criteria for the selection of effective teachers relegates the process to the uncontrollable personal idiosyncrasies of the administrator.

Concerning staff selection, Monroe[43] stated that many college administrators ". . . boast about their intuitive ability to find the right teacher, but . . . seldom advertise their percentage of failures." Assuming a set of criteria could be formulated for the selection of competent community college teachers, the process of matching the desired competencies with the available candidates would be no simple task. Nevertheless, the need for a consensual statement relating to such competencies is evident, however difficult its implementation might be.

VI. ASSUMPTIONS

For the purposes of this study, the following assumptions were made:

1. The community colleges of Tennessee, by virtue of an open-door admissions policy, serve a wide range of students with divergent backgrounds, interests, and needs.

2. Because the community colleges of Tennessee serve so broad a spectrum of needs, a special kind of teacher is necessary to accomplish effective instruction.

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[42] Park, "Teacher Preparation . . . ," op. cit., p. 2.

[43] Charles R. Monroe, Profile of the Community College (San Francisco: Jossey-Bass, Inc., 1972), p. 279.

3. There are certain competencies essential to good teaching that may be identified and agreed upon by selected experts.

4. The effective community college teacher possesses teaching competencies that are to some extent different from those possessed by teachers at the elementary, secondary, and senior college or university levels.

5. A need exists to define the competencies desirable among community college teachers in Tennessee.

6. The population surveyed is qualified to suggest, revise, and rank requisite competencies for effective teaching at the community college level inasmuch as it regularly engages in the evaluation of such applicants for employment.

7. The Delphi technique is a valid planning method for identifying and ranking values held by members of an organization.

8. The participants in the study will respond to the opinionnaires as independent individuals despite the employer/employee relationship between many of them.

VII. DELIMITATIONS

The delimitations pertinent to this study were:

1. The population surveyed consisted of 74 individuals who were the presidents, academic deans, and division heads of the ten community colleges existing in the State of Tennessee during the academic year 1975-76.
2. The study sought convergent expert opinion on what ought to be rather than what is.

3. The study inferred consensus as to the competencies essential for quality community college teachers as agreed upon by the population.
4. The study sought to rank the competencies essential for quality community college teaching.
5. The study neither evaluated the responses to the opinionnaires nor the sequence in which they were given priority.

VIII. DEFINITIONS

The following terms are defined as they were used in the present study:

Community college.[44]

> A two-year institution of higher education, generally public, offering instruction adapted in content, level, and schedule to the needs of the community in which it is located. Offerings usually include a transfer curriculum (credits transferrable toward a bachelor's degree), occupational (or terminal curriculum), general education, and adult education.

Transfer programs. Those programs, regardless of content, whose purpose is the smooth articulation from a "junior" college to a "senior" college or university and a baccalaureate degree.

Vocational-technical programs. Those programs, regardless of content, whose purpose is the termination of formal instruction at the associate degree or certification level.

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[44] American Association of Collegiate Registrars and Admissions Officers, Handbook of Data and Definitions in Higher Education (Washington, D.C.: Association of Collegiate Registrars and Admissions Officers, 1962), p. 27.

Continuing education programs. Those programs, regardless of content, which may or may not lead to a degree or certification and generally are not categorized as either "transfer" or "vocational-technical."

Open-door admissions. A policy of admitting any high school graduate or any person 18 years old or older, within the community college's service area, to any program offered by the college.

Teacher. An individual whose primary responsibility within an institution of higher learning is to provide systematic instruction rather than to engage primarily in activities such as research or writing.

Competencies. The skills, abilities, attributes, characteristics, qualifications, attitudes, and knowledge required to teach successfully at the community college level.

Delphi technique. A method of combining the knowledge, abilities, and opinions of a group of experts to form consensus on a given topic without bringing the participants together. It is best accomplished by a series of mailed questionnaires interspersed with informational input and feedback of response.

Iteration. One of a series of repeated actions; one round of successive events completing a cycle of operations associated with a Delphi questionnaire or opinionnaire.

IX. NATURE OF THE STUDY

The study was conducted by means of an analytical survey that utilized a series of three opinionnaires to gather expert opinion on the

problem. Through repeated questioning and continuous feedback, a majority opinion was formed as to the essential competencies for academic and nonacademic teachers in the community colleges of the State of Tennessee. The study assessed the status of statewide agreement on an hierarchy of competencies which should be found in the effective community college teacher. One hypothesis was tested to determine the significance of difference between intergroup ratings of competency statements.

X. PROCEDURES OF THE STUDY

A panel of "experts," composed of presidents, academic deans, and division heads, was sent three successive opinionnaires designed to secure input followed by group feedback of responses. The first opinionnaire indicated a composite list of those competencies needed by academic and nonacademic teachers at the community college level as determined by a review of related literature and research. The composite list was selected from a review of related literature obtained through research in the Main and Undergraduate libraries of the University of Tennessee, Knoxville; the Tennessee Research Coordinating Unit at the University of Tennessee, Knoxville; the Memphis State University library; and interlibrary loan. Respondents were asked to rate the list on a four-point scale as to importance; to add or delete any competency statements which they felt should either be included or excluded; and to revise those items listed if they thought it appropriate so to do.

The second opinionnaire included the mean ratings and revisions of the panel from the first iteration. It indicated a majority opinion on the relative importance of the competency statements and requested further possible revision. The third and final opinionnaire not only revealed the revised ratings and majority opinions, but also provided a last chance for further revision of opinion. Through repeated questioning and feedback, a consensual opinion was formed in both academic and nonacademic teachers in the community colleges of Tennessee.

The list of competency statements that emerged from the results of the survey were ranked in hierarchal order according to the three basic program types for instruction found in Tennessee's community colleges (transfer, vocational-technical, and continuing). The statements were also ranked, by means of the "RANK" subprogram of the computer program Statistical Analysis Systems, according to seven administrative groups whose members are primarily responsible for the selection and evaluation of teachers at each community college. No statistical test was applied to this procedure inasmuch as the question to which it referred was answered through the use of simple arithmetic means.

In order to answer question four concerning the purpose of this study, an hypothesis was tested for acceptance or rejection. This was accomplished by a determination of the significance of the differences between the means of 21 combinations of intergroup comparisons. Subprogram "T-TEST" of the computer program Statistical Package for the Social Sciences was employed for the analysis of data.

XI. ORGANIZATION OF THE STUDY

The report of the study consists of five chapters and includes the following material:

Chapter I. This section introduces the study; states the problem; provides purpose and importance for the study; formulates an hypothesis; outlines assumptions and delimitations; defines terms; describes the character and design of the study; and outlines the organization of the study report.

Chapter II. This segment presents a review of related literature and research on three separate subjects pertinent to the study: (1) the development of the community college in general, (2) the competencies thought essential by various authorities in the field, and (3) the Delphi technique and its use in educational research.

Chapter III. This portion of the study provides a description of the study procedures. It reveals the construction of the survey instruments, discusses the population, and summarizes the methodolgy utilized within the study.

Chapter IV. This chapter examines the data as revealed in each of the three survey instruments, analyzes the total response to the survey, and reveals both majority and minority opinion concerning the competencies thought essential for teachers at the community college level in the State of Tennessee, lists rankings of the agreed-upon competency statements, and reports results of tests applied to determine the significance of difference found in intergroup ratings.

Chapter V. This last sector offers a summary, conclusions, implications, and recommendations based on results of the study.

CHAPTER II

REVIEW OF RELATED LITERATURE

I. GENERAL INTRODUCTION

Overview of the Review of Related Literature

Numerous books and articles have been written concerning various phases of the community college. Volumes of material have been written concerning teacher competency, at all levels, including those of the community college. Additionally, much has found its way into print concerning the Delphi Technique. An attempt was made in this chapter to survey all available writings relating to these three separate topics, insofar as they were pertinent to this study.

Each section of this chapter was written in a chronological fashion. The ultimate goal of the study was the identification of those competencies thought to be essential for effective teaching at the community college level in Tennessee's ten tax-supported community colleges. The writer felt strongly that the outcome of the study could be viewed in clearer perspective if it could be shown how the past has affected the present.

As was discussed in the first chapter of this study, with reference to Rosenthal and Jacobsen,[1] Getzels and Guba,[2] Park,[3] and others, teachers' perception of the roles or competencies expected of them are very much affected by the institutions in which they labor. Therefore, this chapter begins with a review of literature concerning the community college as a whole.

II. DEVELOPMENT OF THE COMMUNITY COLLEGE

Contributing Writers

Many have chronicled the development of the community college. Perhaps the earliest such account, The Junior College, was published in 1919 by F. M. McDowell[4] based on his doctoral dissertation at the University of Iowa in 1918. In 1925, Leonard V. Koos[5] published a comprehensive report on the entire junior college field entitled, The Junior College Movement. In 1928, Frederick Lamson Whitney[6] contributed

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[1]R. Rosenthal and L. Jacobsen, Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development (New York: Holt, Rinehart and Winston, 1968).

[2]Jacob W. Getzels and Egon G. Guba, "Social Behavior and the Administrative Process," The School Review, 65:426-29, Winter, 1957.

[3]Young Park, Junior College Faculty: Their Values and Perceptions (Washington, D.C.: American Association of Junior Colleges, 1971), p. 51.

[4]F. M. McDowell, The Junior College (Washington, D.C.: Government Printing Office, 1919).

[5]Leonard Vincent Koos, The Junior College Movement (Boston: Ginn and Company, 1925).

[6]Frederick Lamson Whitney, The Junior College in America (Greeley, Colorado: Colorado State Teacher's College, 1928).

The Junior College in America, an extensive study of the current status of the movement, to the growing number of treatises. Walter C. Eells[7] wrote an authoritative and up-to-date extension of Koos' report in 1931. He too called his work The Junior College.

Carl E. Seashore's[8] The Junior College Movement appeared in 1940 closely followed by John A. Sexon and John W. Harbeson's[9] collaboration The New American College which portrayed the four-year junior college as an institution to serve the entire community. In 1950, Jesse Parker Bogue's[10] conversational The Community College explored problems and potential solutions for the two-year college based on his administrative experience with the American Association of Junior Colleges. Tyrus Hillway[11] wrote, in layman's language, his comprehensive The American Two-Year College in 1958.

James W. Thornton, Jr.[12] examined a new genus, the "community junior" college, in terms of its development, organization, operation, and future

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[7]Walter Crosby Eells, The Junior College (Boston: Houghton-Mifflin Company, 1931).

[8]Carl E. Seashore, The Junior College Movement (New York: Henry Holt and Company, 1940).

[9]John A. Sexon and John W. Harbeson, The New American College (New York: Harper and Brothers, 1946).

[10]Jesse Parker Bogue, The Community College (New York: McGraw-Hill Book Company, Inc., 1950).

[11]Tyrus Hillway, The American Two-Year College (New York: Harper and Brothers, Publishers, 1958).

[12]James W. Thornton, Jr., The Community Junior College (New York: John Wiley and Sons, Inc., 1960).

in his 1960 offering entitled The Community Junior College. Also written in 1960, The Junior College: Progress and Prospect, by Leland L. Medsker,[13] was a part of the prestigeous Carnegie Series in American Education. The Community College Movement, by Ralph R. Fields,[14] in 1962, traced the development of the community college in terms of its essential characteristics and with examples drawn from four exemplary colleges. James W. Reynolds'[15] 1965 contribution to the Library of Education series of the Center for Applied Research in Education, The Junior College, utilized an historical approach to examine the institution's functions and operations. In 1971, Harold F. Landrith[16] added yet another study, Introduction to the Community Junior College. Of all the volumes devoted to the development of the community college, those by Koos, Eells, and Bogue have become classics in the field.

Several writers noted patterns in the development of the community college. These formative periods provide a logical approach for examination of the literature. Hillway[17] perceived four developing stages in the history of the two-year college. He outlined them as

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[13] Leland L. Medsker, The Junior College: Progress and Prospect (New York: McGraw-Hill Book Company, Inc., 1960).

[14] Ralph R. Fields, The Community College Movement (New York: McGraw-Hill Book Company, Inc., 1962).

[15] James W. Reynolds, The Junior College (New York: The Center for Applied Research in Education, Inc., 1965).

[16] Harold F. Landrith, Introduction to the Community Junior College (Danville, Illinois: The Interstate Printers and Publishers, Inc., 1971).

[17] Hillway, op. cit., pp. 40-43.

follows: (1) "The Preparatory Period," 1850-1900; (2) "The Formative Period," 1900-1920; (3) "The Period of Diversification," 1920-1940; and (4) "The Period of the Community College," 1940 to approximately 1960. Thornton[18] added a fifth period, from 1965 to date, which he called the "Period of Consolidation." The following chronology of the community college will utilize these five "periods" as an outline.

1850-1900, the Preparatory Period

Many influences and changes resulted in the eventual establishment of the "junior" college. According to Reynolds,[19] four distinct patterns are easily discerned in their origin. They were:

1. The upward extension of high schools or academies
2. The transformation of many church-related colleges from four-year to two-year institutions
3. The evolution of educational institutions initially intended to bring advantages to young people in rural areas
4. The creation of junior colleges by philanthropic groups or individuals

Additionally, some normal schools wanted to offer collegiate work as well as purely pedagogical subjects.[20]

Perhaps the single most important influence on the development of the junior college from 1850 to 1900 was an attempted reform of the American university system. Foremost in that movement was William Rainey Harper, President of the University of Chicago. Harper, along with

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[18]Thornton, op. cit., p. 55.

[19]Reynolds, op. cit., p. 3.

[20]Fields, op. cit., p. 50.

Presidents Henry Phillip Tappan of the University of Michigan and William Watts Folwell of the University of Minnesota, advocated what they termed the "bifurcated" university.[21] Their recommendations were not directed so much toward the creation of a totally new educational institution as they were toward strengthening upper-division programs at the universities. Harper and friends also felt that small, understaffed, four-year colleges should expend their energies on the first two years of a broad lower-division program and leave specialization to the larger colleges and universities.[22]

During this period, educators were unable to agree whether the junior college was on the secondary level or a part of higher education. Several four-year colleges and universities transferred portions of the first and second years of their liberal arts programs to the secondary level. A number of high schools added thirteenth and fourteenth years to their programs.[23] "For a time, the four-year junior college, compromising grades 11-14, was fairly popular," according to Reynolds.[24] Whatever the combination, the new "junior" colleges relieved the "senior" colleges of lower-division drudgeries. The universities generally

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[21]L. L. Medsker, op. cit., p. 11.

[22]Ken August Brunner, "Historical Development of the Junior College Philosophy," Junior College Journal, 40:30, April, 1970.

[23]Landrith, op. cit., pp. 15-16.

[24]Reynolds, op. cit., p. 8.

approved of this relief and as a result, the junior college experienced its greatest expansion in areas where the university leadership was most favorable.

The true identity of the first junior college is not precisely known. Several private two-year colleges were established in the late 1800's, Monticello College, founded in 1835, being the earliest on record.[25] Laswell Junior College, established in 1851, may have been the first "junior" college so titled.[26] Susquehanna University made its debut as a postsecondary, two-year school in 1855.[27]

Various writers have assigned the distinction of being the first junior college to a variety of institutions. Among those most often mentioned are Lewis Institute of Chicago, Bradley Polytechnic Institute of Peoria, Illinois, and the public schools of Goshen, Indiana. In 1896, the Universities of California and Chicago essentially made their lower-division programs into junior colleges.[28] Decatur Baptist College was established as a junior college in 1898.[29] However, most authorities agree that in 1902, through the strong influence of Harper, J. Stanley Brown, superintendent of Joliet Township High School, added the

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[25]William K. Ogilvie and Max R. Raines, Perspectives on the Community-Junior College (New York: Appleton-Century-Crofts, 1971), p. 78.

[26]Landrith, op. cit., p. 20.

[27]Clyde E. Blocker, Robert H. Plummer, and Richard C. Richardson, Jr., The Two-Year College: A Social Synthesis (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), p. 25.

[28]Fields, op. cit., p. 15.

[29]Eells, op. cit., p. 64.

thirteenth and fourteenth grades to the high school of Joliet, Illinois, thus according Joliet Junior College the signal honor of being the first publicly supported junior college in the United States.[30]

1900-1920, the Formative Period

Prior to the turn of the century only 11 private junior colleges existed.[31] From 1900 to 1920, the junior college "movement" experienced a period of sporadic development. Disclaimed by the universities and unwanted by the secondary schools, two-year public colleges encountered considerable difficulty while similar private institutions thrived, in the main. According to Blocker, a substantial number of the public junior colleges established during this time failed to survive.[32]

From 1900 to 1904, five junior colleges opened, two public and three private. Twelve more were established from 1905 to 1909, one being public and 11 being private. The period from 1910 to 1914 saw 28 new junior colleges open their doors, seven of which were public and 21 of which were private.[33] By 1915 there was a total of 74 junior colleges, 19 of which were publicly supported institutions and 55 of which were privately supported institutions.[34] From 1915 to 1919,

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[30]Landrith, op. cit., p. 19. [31]Ibid.

[32]Blocker, loc. cit.

[33]James A. Starrak and Raymond M. Hughes, The Community College in the United States (Ames, Iowa: The Iowa State College Press, 1954), p. 24.

[34]Robert J. Havinghurst, "The Junior College in American Society," in National Committee for Appraisal and Development of Junior College Student Personnel Programs, Junior College Student Personnel Programs: Appraisal and Development (New York: National Committee for Appraisal and Development of Junior College Student Personnel Programs, 1965), p. 1.

56 more junior colleges were established, 21 of them being public, and 35 of them being private.[35] According to Thornton,[36]

> . . . the junior college, proposed and initiated both as an extension of secondary education and as an amputation from the university four-year college, grew and prospered until in 1921 there were 207 such colleges, 70 public and 137 private.

Influenced by David Starr Jordan, President of Stanford University, the State of California became a frontrunner in the expansion of the junior college. In 1907, the State Legislature of California granted approval for the state's public high schools to introduce "postgraduate" courses which would parallel the lower-division curricula of the university. Subsequently, Fresno City College was founded in 1910 as the first public junior college in California. 1917 saw the California legislature vote ninety dollars per student annually to support junior colleges.[37]

By 1920 the junior college had survived the traumas of "amputation," "decapitation," "elongation," and "extension." In that same year, Philander P. Claxton, United States Commissioner of Education, called a special meeting of junior college representatives at St. Louis, Missouri. Thirty-four colleges joined together at that historic meeting to form

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[35] Starrak, loc. cit.

[36] Thornton, op. cit., p. 50.

[37] Franklin Parker, Anne Bailey, and William K. Ogilvie, The Junior and Community College: A Bibliography of Doctoral Dissertations, 1918-1963 (Washington, D.C.: American Association of Junior Colleges, 1965), p. 6.

the American Association of Junior Colleges.[38] Thus ended the second major phase in the development of the junior college.

1920-1940, the Period of Diversification

According to Hillway, the period from 1920 to 1940 was a "Period of Diversification." During this time, spectacular growth occurred, especially in publicly-financed colleges.[39] From 1920 to 1924, 97 new junior colleges were opened, 47 of them being public and 50 of them being private. One hundred sixty-one new junior colleges opened from 1925 to 1929 with 92 of them under public supervision and 69 governed privately. One hundred twelve new junior colleges were established (40 public, 72 private) between the years of 1930 and 1934; 120 (48 public, 72 private) between the years of 1935 and 1939. By 1940 there was a grand total of 610 junior colleges in the entire United States (261 public, 349 private).[40]

Even though private junior colleges continued to outnumber public ones, the enrollment in public junior colleges far exceeded that of the private ones after 1921. The decade of the "twenties" marked the emergence of what was to become the "typical" junior college.[41]

During this period, the junior colleges took on an air of respectability. They had truly attained higher education status. The

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[38] Eells, op. cit., p. 75.

[39] Hillway, op. cit., p. 42.

[40] Starrak, op. cit., pp. 24-25.

[41] Havinghurst, loc. cit.

American Association of Junior Colleges, at its second annual meeting in Memphis, Tennessee, in 1922, defined the junior college as an institution which offered two years of instruction at the higher education level.[42] Many junior colleges began to require graduation from the twelfth grade for admission. Although most of them continued to function as preparatory schools for the four-year colleges and universities, many began to offer terminal and semiprofessional, nondegree programs. A great many trade schools, business schools, technical schools, and the like, converted into the more academically respectable junior colleges.[43] All of this activity was heightened by the mounting public support of what had been, almost exclusively, a private institution.

Thornton[44] noted four significant factors contributing to the diversification and rapid growth of the public junior college. He listed them as follows: (1) unemployment during the depression brought into sharp focus the need for training in specific job skills; (2) increasing automation required workers with higher levels of technical skill; (3) the Smith-Hughes Act and other similar legislation enabled the establishment of state agencies for vocational education; and (4) junior colleges sought to provide occupational courses commensurate with the needs of a particular community.

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[42] Eells, op. cit., p. 3.

[43] Hillway, loc. cit.

[44] Thornton, op. cit., p. 54.

More and more attention was being given to the community aspect of the junior college. Koos was among the first to suggest the relationship of the junior college to its community. He listed among the purposes of the junior college two which affect the community of location. Koos[45] predicted that the advocates of the junior college ". . . will look for the junior college through courses offered and through its cultural influences to be highly serviceable to the local community."

In 1936, Hollinshead[46] referred to the obligation of the junior college to its community: ". . . the response of the community to the institution is largely predicated upon the generally recognized usefulness of the institution to the community." Later, that same year, he wrote:[47]

> The community college is closer to its constituency; it is more sensitive to the life needs of the students; it is less encumbered by an overgrowth of departmentalization and by the vested interests which have grown up around the traditional courses; and it can, therefore, make effective adjustments to changing needs.

In an article of the period, Griffing[48] regarded the junior college as a community center furnishing intellectual leadership in the

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[45] Koos, op. cit., p. 25.

[46] Byron S. Hollinshead, "Evaluating the Junior College Teacher," Junior College Journal, 6:295, March, 1936.

[47] Byron S. Hollinshead, "The Community Junior College Program," Junior College Journal, 7:116, December, 1936.

[48] J. B. Griffing, "The Junior College: A Community Center," National Education Association Journal, 22:6, January, 1933.

community. In 1939, Hayden[49] gave a clear statement of his belief in the junior college as a community institution in a brief article in the Junior College Journal. By 1940, the community aspect of the junior college was widely recognized and accepted.

1940-1960, the Period of the Community College

The score of years from 1940 to 1960 witnessed phenomenal growth in the number of "community" junior colleges. In 1940 there were 610 such colleges, 261 of which were public, 349 of which were private. World War II caused a drop in enrollment as well as a decline in total numbers of the institution. Five hundred ninety-one were reported in 1945 with 269 being public and 322 being private.[50] Despite the decline, the nationwide emphasis on training for the war effort gave impetus for the community junior colleges to engage even more in community service.[51] After the war, in 1947, the public "community" colleges finally outnumbered the private junior colleges.[52]

In that same year, United States President Harry S. Truman appointed the President's Commission on Higher Education. This group officially

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[49] Sheldon M. Hayden, "The Junior College as a Community Institution," Junior College Journal, 10:70-73, October, 1939.

[50] Starrak, op. cit., p. 25.

[51] Thornton, op. cit., p. 55.

[52] Havinghurst, loc. cit.

suggested the name "community college" when it proposed the establishment of hundreds of new two-year collegiate institutions throughout the nation in order to break down the "principal barriers" to educational opportunity.[53] Shortly thereafter, James B. Conant[54] wrote:

> Those institutions which are now coming to be called "community colleges" offer the best hope of meeting the postwar surge for vast expansion of education beyond the high school. They likewise can serve most effectively as centers for adult education.

Although this period of expansion was characterized by ever increasing attention to community service, it also was the time during which continuing and adult educational programs were added as well as guidance services that were focused on the needs of the individual student. The "community" college attempted to fill the educational chasm between high school and traditional four-year college and/or university training.[55]

It was during these years that the "community" college achieved its most significant recognition as a part of higher education in the United States. However, the increasing tendency to be identified with higher education made more difficult ". . . the fulfillment of the

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[53]President's Commission on Higher Education, Higher Education for American Democracy (New York: Harper and Brothers, 1948), p. 5.

[54]James Bryant Conant, Education in a Divided World (Boston: Harvard University Press, 1948), p. 200.

[55]E. K. Fretwell, Jr., "Issues Facing Community Colleges Today," Today's Education, 57:46, October, 1968.

commitments to those purposes and functions not generally regarded as being related to college work," according to Medsker.[56] The "community" college increasingly assumed the overwhelming task of serving all the postsecondary, and sometimes less than postsecondary, educational needs of all the people. Its program became more and more diverse. Koltai and Thurston[57] believed that it tried to be all things to all people. The results were not always successful. Because of the proliferation of programs, Medsker[58] considered the problem of identity as the overriding issue for community colleges during the 1960's.

1960-1975, the Period of Consolidation

Thornton,[59] in suggesting his "Period of Consolidation," proposed that ". . . history has developed a workable concept of the true community college. The task during the consolidation period is to give concrete reality to the ideals that have been elaborated." Gleazer[60] agreed:

> In the phrase "community college," the accent too often has been on the word "college." Crucial to the future of community colleges, to their vitality, to their public support, is the definition of their fields of activity.

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[56]Leland W. Medsker, "Community College Education," in Robert L. Ebel (ed.), Encyclopedia of Educational Research (4th ed.) (New York: The Macmillan Company, 1969), p. 182.

[57]Leslie Koltai and Alice S. Thurston, "The Community Colleges," in Edmund J. Gleazer, Jr. (ed.), American Junior Colleges (8th ed.) (Washington, D.C.: American Council on Education, 1971), p. 10.

[58]L. W. Medsker, op. cit., p. 183.

[59]Thornton, op. cit., p. 58.

[60]Edmund J. Gleazer, Jr., "After the Boom . . . What Now for the Community Colleges?" Community and Junior College Journal, 44:7, December-January, 1973-1974.

According to Gehret,[61] Gleazer's comments spoke to the need for flexibility, ". . . an outstanding characteristic of many community colleges."

W. H. Harper[62] listed seven widely accepted "tenets" as the essential elements of the modern community college: (1) open admissions, (2) low cost, (3) varied programs, (4) community service, (5) accessibility, (6) teaching institution, and (7) an innovator. He maintained that, by and large, the majority of community colleges have lived up to those tenets. Jennings[63] put the same sentiment more forcefully:

> . . . of all the sectors in the educational establishment, the community college is potentially the most responsive to positive change. More than this, if success is possible here, then all of the schools above and below will be forced to reshape themselves into student-supportive agencies.

The development of the community college was accompanied by numerous problems. They came into existence without benefit of enabling legislation. They faced opposition from many small four-year colleges because they offered tempting competition. They were often financial burdens on local communities. Financial aid came in greater quantity and with greater ease for elementary and secondary institutions as well

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[61]K. G. Gehret, "Junior College, Not So Junior Anymore," The Christian Science Monitor, April 10, 1971, p. 1, Sec. 2.

[62]W. H. Harper, "The Community and Junior College: An Overview," Peabody Journal of Education, 48:259-61, July, 1971.

[63]Frank G. Jennings, "The Two-Year Stretch: Junior Colleges in America," Change, 2:22, March-April, 1970.

as for public four-year colleges and universities. They were stepchildren in the family of higher education. Their leadership was primarily lumped with secondary education.[64] Despite a century of struggle, the community college has emerged as a significant contributor to the educational process. According to Blocker,[65] "This renaissance . . . has found its greatest manifestation in the community college."

III. SEARCH FOR THE EFFECTIVE TEACHER

Background

Tennessee's commitment to an open-door policy guarantees admission of all high school graduates to any of its ten tax-supported community colleges. Godbold[66] described, in ominous tones, the multiplicity of students entering such institutions of higher education:

> . . . those who cannot immediately adapt to the traditional methods of instruction; those whose personal situations are not accommodated by the typical school day; those whose linguistics and cultural problems transcend present approaches to visual and oral communication; those who have an aversion to the college campus for cultural or other reasons; those who are aged and for whom the college campus is inaccessible; those who are college graduates and post-graduates whose concern is for new information rather than college credits; those who are interested in immediate short-term retraining and job upgrading; those whose anxiety about

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[64] L. L. Medsker, op. cit., pp. 16-17.

[65] Blocker, op. cit., p. 2.

[66] Donald H. Godbold, An Agenda for National Action (Washington, D.C.: American Association of Community and Junior Colleges, 1973), p. 68.

> the attainment of education overpowers their motivation to attempt its acquisition; and those for whom the entanglements of their personal lives infringe upon their studies.

As Tennessee's community colleges continue to attract such diverse clientage, the need for thoroughly competent teaching personnel becomes increasingly urgent. Therefore, one of the most important tasks facing the community college administrator is the selection of a staff of teachers that can carry out effectively the institution's avowed program. This cannot be accomplished, according to Sweet,[67] until those competencies have been identified which are needed by teachers who are in sympathy with the institution's established goals and objectives.

Much of the problem relates to the nature of the community college. To that theme, Kelly and Connolly[68] wrote: "The problem of bringing together a group of people, most of whom have accepted role obligations without the advantage of special preentry exposure deserves serious consideration." Brawer[69] described the community college as ". . . an institution where a heterogeneous student body meets a heterogeneous faculty."

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[67]Gordon W. Sweet, "College Self-Evaluation of Purpose and Faculty," in James L. Wattenbarger and Winfred L. Godwin (eds.), The Community College in the South: Progress and Prospects ([n.p.]: The Southern States Work Conference, 1962), p. 115.

[68]M. Frances Kelly and John Connolly, Orientation for Faculty in Junior Colleges (Washington, D.C.: American Association of Junior Colleges, 1970), p. 3.

[69]Florence B. Brawer, Personality Characteristics of College and University Faculty: Implications for the Community College (Washington, D.C.: American Association of Junior Colleges, 1968), p. 31.

Traditionally, administrators faced with the task of staff selection have been concerned primarily with knowledge and training criteria rather than performance criteria. Knowledge and training are not superficial criteria upon which to base selection of teachers, but knowing and the ability to teach or communicate what is known are two different matters. In essence, the teacher guides the learning and development of others. Ryans[70] stated that,

> . . . teaching is effective to the extent the teacher does things, or behaves, in ways that are favorable to the development of skills, understandings, work habits, desirable attitudes and adequate personal adjustment on the part of the pupils or students.

Teachers are judged effective or ineffective according to the long-term outcomes of their day-to-day performances. It is the implementation of all the variables that teachers bring to bear on their teaching that ultimately makes the difference. Educators have long sought to identify the elusive nature of competence.

Literature of the 1930's and 1940's

Not unlike Sam Clemen's epigram concerning the weather, much has been said and written about those characteristics deemed desirable for teachers, at all educational levels, but very little has been changed as a result of it. As the junior college became more respectable, lists of varying lengths and credibility were created outlining all the things teachers should or should not be. One such list, compiled from the

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[70] David G. Ryans, "The Investigation of Teacher Characteristics," Educational Record, 34:375, October, 1953.

University of Chicago's 1929 Commonwealth Teacher-training Study, was cited by Bonser.[71] The Study's twenty-five traits, listed in rank order of importance, were as follows:

1. Good judgment
2. Self-control
3. Considerateness
4. Enthusiasm
5. Magnetism
6. Adaptability
7. Breadth of interest
8. Honesty
9. Cooperation
10. Refinement
11. Carefulness
12. Forcefulness
13. Leadership
14. Health
15. Attractiveness
16. Industry
17. Neatness
18. Dependability
19. Scholarship
20. Originality
21. Promptness
22. Open-mindedness
23. Progressiveness
24. Fluency
25. Thrift

Eliassen and Martin[72] condensed several studies, done during the period of time from 1937 to 1939, into a comprehensive article on the various traits and characteristics found in superior teachers. Those qualities mentioned most frequently were as follows:

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[71] F. G. Bonser, "Qualities Desired in Teachers by Administrators," School and Society, 31:260, February 22, 1930.

[72] R. H. Eliassen and Robert L. Martin, "Teacher Recruitment and Selection During the Period 1944 Through 1947," Journal of Educational Research, 41:642, May, 1948.

1. Scholarship
2. Health
3. Personality
4. Intelligence
5. Speech
6. Character
7. English usage
8. Achievement
9. Culture
10. Skill and interest in teaching
11. Emotional stability
12. Professional information
13. Beliefs
14. Aptitude

In a 1943 article on personality traits, Dodge[73] constructed the following descriptive phrases which he believed best characterized the successful teacher. The successful teacher should be:

1. More at ease in social contacts
2. More willing to assume responsibility
3. Less subject to fears and worries
4. More sensitive to the opinions of others
5. Slower in making decisions than less successful teachers

Utilizing a negative approach, Pugh and Morgan[74] asked junior college administrators to point out their criticisms of prospective junior college teachers. Results of the study indicated that the administrators had the following criticisms of them: (1) they spend too much time on research and too little time in contact with other individuals; (2) their health is often impaired due to the graduate school grind; (3) they are too frequently "warped" scholars rather

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[73]Arthur F. Dodge, "What Are the Personality Traits of the Successful Teacher?" Journal of Applied Psychology, 27:325-37, August, 1943.

[74]David B. Pugh and Roy E. Morgan, "Faculty Needs and Requirements," Junior College Journal, 13:429-30, May, 1943.

than teachers; (4) those coming from graduate schools have a tendency to be pedantic; (5) graduates of schools of education are intellectually arid; (6) they tend to be social misfits and/or intellectual snobs; (7) they often emphasize scholastic ability at the expense of personality; (8) they are too "subject-matter" conscious; (9) they are more interested in becoming university professors than in adjusting to the needs of their students; (10) they are inclined to emphasize what they know instead of what the students need; (11) they are illiterate, except in their own field; (12) they are not emotionally capable of living democratically as required in the junior college; (13) they lack balance, stability, and satisfaction in their lives and outlook; (14) they are unaware of social responsibilities; (15) they are impatient with the junior college, thinking it to be an inferior institution; and (16) they expect too much in the way of facilities, such as individual offices, research materials, and the like.

Eliassen and Martin[75] compiled yet another listing of the most often mentioned qualities considered essential in the superior teacher. The following listing covers studies done during the years from 1940 through 1943.

1. Personality
2. Health
3. Scholarship
4. Intelligence
5. Speech
6. Character
7. Interests
8. Emotional stability

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[75]Eliassen and Martin, op. cit., p. 643.

9. General culture
10. Ability to work with others
11. English
12. Attitudes
13. Love of youngsters
14. Art of teaching

Armstrong[76] reported the qualifications she felt were most essential to teacher success at the higher education level. Those considered of primary importance were categorized as follows:

1. Teaching ability
2. Scholarship and scholarly ability
3. Experience
4. Personal qualities: reasoning power, originality, memory, alertness, accuracy, application, cooperation, moral attitude, health, and zeal for investigation

In their exhaustive article on teacher characteristics, Eliassen and Martin[77] compiled a third listing of desirable qualities to be found in the superior teacher. This list covered the time span from 1944 to 1947, and was as follows:

1. Personality
2. Intelligence
3. Liking for children
4. Knowledge of subject matter
5. Broad concept of teaching
6. High sense of calling
7. Social adjustment
8. Good health
9. Liking for people or working with people
10. Good citizenship
11. Emotion stability
12. Enthusiasm
13. Leadership

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[76]Grace Armstrong et al., "Criteria for Ranking the Faculty of a Teachers' College," Peabody Journal of Education, 21:321-59, May, 1944.

[77]Eliassen and Martin, loc. cit.

As to the competencies deemed necessary to effective teaching, insight may be gained through examination of criteria used in the recruitment and selection of teacher trainees for the community college level. Blake[78] suggested the following criteria for use in the evaluation and selection of such teacher candidates.

1. A broad base of general education and a concentration on one field of subject matter
2. A wide experience in extracurricular activities
3. A creative and experimental mind
4. An understanding of the adolescent, his experience patterns, his problems and his needs
5. A social point of view and a genuine interest in and sympathy with humanity
6. Possession of a vigorous personality and qualities of leadership
7. Work experience
8 Common sense and a sense of humor

Along the same lines, Eckert[79] suggested the following desirable characteristics should be developed in the prospective community college teacher. The community college teacher should: (1) have an understanding of the educational objectives and school programs at every level, with particular interest in institutions of higher learning; (2) develop an appreciation of social trends affecting the tasks of higher education; (3) possess a keen sense of the functional relationship between aims and content and a developed ability to formulate goals for curricula and units of work; (4) have an understanding of human development and human

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[78]Wainwright D. Blake, "A Plan for Selecting and Training Junior College Teachers," The Nation's Schools, 34:44, October, 1944.

[79]Ruth E. Eckert, "A New Design for the Training of College Teachers," Junior College Journal, 18:29, September, 1947.

relations; (5) have an understanding of the psychology of the learner and skills in working with young adults; (6) have an appreciation of the major trends in higher education; (7) have an understanding of the principles of curriculum development and the ability to apply them in the direction and organization of subject matter for teaching purposes; (8) have a knowledge of the adjustments and guidance problems of college youth and a developed skill in counseling individual students; (9) have a grasp of the basic principles of evaluation, with the skill of formulating tests, administering them, and interpreting the results; (10) have an understanding of the nature and significance of the teaching profession and of the many responsibilities of the individual teacher; (11) be willing to experiment with new procedures and materials, and to look with sympathy upon such experimentation on the part of his fellow teachers; and (12) develop a skill in participating democratically in the development of educational policy and the solutions of problems which arise in college life.

In 1949, H. L. Smith[80] took a dim view of the academic preparation the then current crop of junior college teachers was receiving. Regardless of how painstakingly they had been recruited and selected, he felt that they were not adequately prepared for the rigors of junior college teaching by virtue of the traditional graduate school training. He wrote, "The regimen required for the Ph.D. has engendered skills and

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[80]Harlie L. Smith, "Better Education of College Teachers—The Junior College," The North Central Association Quarterly, 23:392, April, 1949.

subject matter fancies which very often cause a person to be ill-equipped to do the job." He did not merely criticize, however. Smith[81] went on to suggest nine personal qualities which are needed by teachers at the community college level. They were listed as follows:

1. Physical health and energy
2. Emotional stability
3. Leadership ability; ability to inspire
4. Ability to project ideas dramatically and persuasively
5. Strong scholarship
6. Social adaptability
7. Interest in young people
8. Interest in world affairs
9. A philosophy of life and a character which include strong spiritual values

Smith[82] continued his suggestions with a listing of what he considered to be the important competencies needed by junior college teachers. This listing of competencies was an early departure from lists of characteristics and qualities. Although they may not measure up to the present-day criteria for competencies, they were a step in the right direction. He listed the following six items:

1. Broad general education
2. Sufficient depth of training to insure strong scholarship
   - [a.] For academic departments, at least a master's degree in the teaching field is recommended
   - [b.] Sufficient training to teach in at least two related fields, or in a broad field (e.g., social sciences), at both high school and junior college levels
   - [c.] For terminal industrial, semiprofessional, or other vocational subjects, the amount of academic training required may vary, but work experience is important

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[81] Ibid., p. 395.

[82] Ibid., p. 396.

3. Professional training relating specifically to junior college teaching
   [a.] Professional training designed to acquaint the person with the philosophy (or philosophies) and background of the junior college, and with the work expected of faculty members in regard to committee assignments and similar faculty services
   [b.] This professional training should include an internship or cadet teaching in a junior college
4. Both the specialized training in the teaching field and the professional training including cadet teaching should be taken simultaneously during the period of graduate study of approximately two years
5. Knowledge of counseling procedures, including interpretation of test results
6. Ability to lead in some extracurricular activity

Literature of the 1950's and 1960's

Trabue's[83] 1950 article concerning the traits that junior college teachers should possess was summarized succinctly. The junior college teacher must have an understanding of the problems of college students, inspirational qualities, enthusiasm, friendliness, and similar qualities. Equally succinct was P. E. Smith's[84] conclusion that among the personal characteristics of teachers that are of importance to administrators of junior colleges in appraising the qualifications of prospective junior college teachers are those related to the community and professional activities of the teachers.

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[83]Marion R. Trabue, "What Traits Should Junior College Teachers Possess?" Junior College Journal, 21:140-42, November, 1950.

[84]Perle Eugene Smith, "A Study of Certain Characteristics of 'Good' Teaching in a Junior College as Compared with a Control Group" (unpublished Doctoral dissertation, The University of Texas, Austin, 1954).

Again, a negative approach was used to describe the able teacher when Carman[85] listed his five "earmarks of failure."

1. Preoccupation with research at the expense of teaching
2. Sheer pedagogical incompetence
3. Exhibitionism and timidity
4. Lack of self-criticism
5. Inadequate use of helpful facilities

Colvert[86] quoted an American Association of Junior Colleges study which cited the following "fundamental weaknesses" of the typical junior college instructor.

1. Preparation is too frequently of narrow and specialized nature
2. Instructors have the content point of view rather than the student point of view
3. They lack suitable balance of subject matter and professional training
4. They fail to understand the junior college
5. Instructors fail to develop personality traits adapted to the dynamic leadership of youth
6. They lack ability to relate their teaching to practical everyday problems
7. University placement officers make recommendations upon insufficient evidence
8. Instructors are interested in research rather than classroom teaching
9. They have an attitude of condescension toward the junior college
10. They lack work experience

University and senior college staffs criticized junior college instructors in a study by Rainey.[87] They specifically criticized the

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[85]Harry J. Carman, "Campus Issues and Problems," The Annals of the American Academy of Political and Social Science, 301:51-52, September, 1955.

[86]C. C. Colvert, "The Ideal Junior College Teacher," Junior College Journal, 22:502, May, 1952.

[87]Bill G. Rainey, "Analysis of Criticisms of Junior College Teachers by University and Senior College Staff," Junior College Journal, 30:208-12, December, 1959.

junior college teachers because they: (1) did not do research; (2) did not publish; (3) were not specialized enough in their fields; (4) did not join professional groups; (5) did not have sufficient experience in college teaching; and (6) were not concerned with "high standards."

Charles and Summerer[88] attempted to identify the type of competent faculty member that they thought essential to the success of a community college program. They listed seven considerations that should be made in the selection of a faculty member. He/she must: (1) be sincerely interested in teaching; (2) be well prepared in his field; (3) have a positive attitude about student activities; (4) possess sound character, a good personality, and stability; (6) live in the community and participate in its activities; and (7) fit into a balanced mix of age, training, and experience.

Seventeen public community colleges in the state of Michigan were studied concerning, among other things, the methods used in the selection of faculty and the criteria applied as basic qualifications for faculty employment. Reporting on the study, Vaccaro[89] found that most administrators use one or two others in the selection process who are faculty from the department where the applicant might teach. Characteristics sought by the administrators among applicants for

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[88]Searle F. Charles and Kenneth H. Summerer, "Building a Junior College Faculty," The Junior College Journal, 29:421-22, March, 1959.

[89]Louis C. Vaccaro, "Faculty Recruitment by Community Colleges," Michigan Education Journal, 41:13, February 1, 1964.

positions in academic instruction were: (1) at least a master's degree in the subject area taught; (2) some teaching experience; (3) at least eight semester hours earned in professional education courses; and (4) a positive attitude about the community college. For applicants in vocational-technical subjects, the administrators wanted: (1) at least a bachelor's degree; (2) about two and a half years of experience in the vocational field in which they would teach; (3) eight semester hours of professional education courses; and (4) a positive attitude about the community college.

In a study of 64 administrators, in 11 western states, and officials from 13 state departments of education, Loomis[90] investigated the formal preparation required and designed for teachers of academic courses in community colleges. He found a master's degree in the subject field taught to be the most common requirement. Additionally, a preference was indicated for teachers with more general education and broad field preparation.

Combs[91] insisted that good teaching is not a direct function of general traits or methods. He thought that the creation of long lists of competencies is discouraging and disillusioning to the novice as well as the veteran teacher. It is ridiculous, he maintained, to list

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[90]William George Loomis, "A Study of the Formal Preparation of Academic Teachers in Community Colleges with Proposals for Oregon" (unpublished Doctoral dissertation, Oregon State University, Corvallis, 1965).

[91]Arthur W. Combs, The Professional Education of Teachers: A Perceptual View of Teacher Preparation (Boston: Allyn and Bacon, Inc., 1965), pp. 1-9.

particular competencies as measures of good teaching without some weight given to personalities, situations, or purposes. Rather, he defined the effective teacher as ". . . a unique human being who has learned to use himself effectively and efficiently to carry out his own and society's purposes in the education of others."

Pearce[92] completed a study to identify those characteristics that students, teachers, and administrators consider essential for an effective basic education instructor at the junior college level. He found that the most important single quality for such a teacher was the ability to help the student to develop and maintain self-confidence. Understanding, flexibility, patience, practicality, humor, creativity, and care in preparation of class activities were also considered important.

Ward[93] analyzed the responses of deans of instruction, department chairmen, and students to an opinionnaire that rated desirable community college teacher characteristics. His findings showed that such teachers should: (1) adjust their courses to meet the needs of their students; (2) inspire creativity through creative presentations; (3) help students to be open-minded; (4) provide opportunities for leadership and responsibility; and (5) give different points of view.

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[92]Frank C. Pearce, Basic Education Teachers: Seven Needed Qualities (Washington, D.C.: American Association of Junior Colleges, 1966).

[93]Gordon A. Ward, "An Analysis of Public Community College Teacher-Preparation Needs with Program Identification" (unpublished Doctoral dissertation, The University of Wyoming, Laramie, 1969).

Writings of the 1970's

Lott's[94] study of selected qualifications of Florida public junior college teachers and teachers of similar courses in the public universities of the state utilized a population of 1,305 full and part-time faculty members. Among his findings, he reported the following comparisons: (1) the university group, as compared to the junior college group, had greater depth of preparation at the undergraduate as well as at the graduate levels of preparation; (2) the junior college group, as compared to the university group, had a greater depth of preparation in professional education courses at both undergraduate and graduate levels; (3) while publication was more frequent in the university group than in that of the junior college, a large portion of both groups did not publish at all during the five year period used in the study; (4) junior college teachers compared unfavorably with their university colleagues in reference to research and scholarship honors accrued; and (5) in terms of total qualifications, there was less variation by subject area for the junior college group than for the university group.

According to Freider,[95] there are six basic teaching functions into which any or all teaching competencies must fit. They are:

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[94]Gary Benjamin Lott, "A Comparative Study of Selected Qualifications and Salaries of Public Junior College Teachers and Teachers of Similar Courses in Public Universities in Florida" (unpublished Doctoral dissertation, The Florida State University, Tallahassee, 1970).

[95]B. Freider, "Motivator: Least Developed of Teacher Roles," Educational Technology, 10:28-36, February, 1970.

1. Formulating objectives for learning and activities
2. Diagnosis of the learner's instructional needs
3. Prescription of instructional activities for the learner
4. Instruction of the learner
5. Motivation of the learner
6. Evaluation of the learner's degree of achievement of objectives

Miller[96] surveyed 81 occupational and 77 nonoccupational teachers from six community colleges in southwestern Michigan to make comparisons on several variables related to community college teaching. She found, among other things, that: (1) for undergraduate preparation, occupational teachers had attended colleges, universities, trade schools, and technical institutions while nonoccupational teachers had attended colleges and universities; (2) occupational teachers had received undergraduate degrees and certificates, and some had no degrees while nonoccupational teachers had generally received undergraduate degrees; (3) over half of the occupational teachers had attended graduate school while most nonoccupational teachers had attended graduate school; (4) a high percentage of occupational teachers had work experience related to the field in which they were teaching while over half of the nonoccupational teachers did not have this experience; (5) occupational teachers had more positive attitudes toward the community college administration than nonoccupational teachers; (6) occupational and nonoccupational teachers have had few courses or informal experiences to prepare them for community college teaching; and (7) occupational and

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[96]Mary Dupee Miller, "A Study to Compare Occupational and Nonoccupational Teachers Regarding Community College Teaching at Selected Community Colleges in Michigan" (unpublished Doctoral dissertation, The University of Michigan, Ann Arbor, 1971).

nonoccupational teachers have positive attitudes toward community college teaching.

Bliss[97] developed a 49-item scale for use by 469 students to rate their teachers in terms of personal traits, professional skills, and professional knowledge. He discovered that effective community service teachers rated high in flexibility, forcefulness, emotional stability, physical energy and drive, identification of pupil needs, and use of language and other media of communication. Effective teachers scored higher than ineffective teachers on every item considered in the field of professional knowledge.

Lindahl[98] discovered that community college vocational teachers, regardless of program area, need proficiency in a common core of performance-based professional education competencies. His research involved 160 teachers from four western states and from the vocational program areas of agriculture, health, home economics, and service occupations. It indicated that the most important competencies were those relating to the management of instruction, such as teaching and guidance strategies, while the lowest ranking competencies were those

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[97]Phillip Frederick Bliss, "The Identification and Investigation of the Relationship Between Selected Teacher Characteristics and Teaching Effectiveness in Community Service Courses at the Junior College Level" (unpublished Doctoral dissertation, The Florida State University, Tallahassee, 1971).

[98]Donald Gene Lindahl, "Commonalities in the Professional Education Competencies of Selected Community College Vocational Instructors" (unpublished Doctoral dissertation, Oregon State University, Corvallis, 1971).

relating to problem management, including interpretation of history, philosophy, requirements, and laws dealing with education.

Miller's[99] study involving a random sampling of 160 business and distributive education instructors at the community college level in four western states, revealed agreement in their responses that the highest level of proficiency for professional competencies are those which cluster under factors of instructional management and the teaching-learning process.

Hildebrand and Wilson[100] recommended the following five summary descriptions for use in discriminating the effective teacher from the ineffective:

1. Has command of the subject, presents material in analytic way, contrasts various points of view, discusses current developments, and relates topics to other areas of knowledge
2. Makes himself clear, states objectives, summarizes major points, presents material in an organized manner, and provides emphasis
3. Is sensitive to the response of the class, encourages student participation, and welcomes questions and discussion
4. Is available to and friendly toward students, is interested in students as individuals, is himself respected as a person, and is valued for advice not directly related to the course

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[99]Jack Dean Miller, "A Factor Analysis of Professional Education Competencies and Selected Community College Instructors" (unpublished Doctoral dissertation, Oregon State University, Corvallis, 1971).

[100]Milton Hildebrand and Robert C. Wilson, "Effective University Teaching and Its Evaluation," in Kenneth E. Eble, The Recognition and Evaluation of Teaching (Salt Lake City, Utah: Project to Improve College Teaching, 1970), p. 97.

5. Enjoys teaching, is enthusiastic about his subject, makes the course exciting, and has self-confidence

Adelini[101] developed criteria suitable for judging teacher performance in the Santa Clarita Community College district by investigating perceptions of good teachers as held by experts, students, graduates, full-time teachers, part-time teachers, counselors, administrators, board members, and members of the community. The most important attributes discovered consisted of: (1) the desire to teach; (2) knowledge of subject; (3) public speaking ability; and (4) a sense of humor. Of secondary importance were: (1) enthusiasm; (2) good character; (3) common sense; (4) conscientiousness; (5) dedication; (6) involving the learner in the educational process; and (7) technical competence with the tools of learning.

Jansen, Jensen, and Mylov[102] took a pessimistic view of the value that concern with teacher traits could have in relation to effective teaching behavior. They saw little or no relationship between teacher characteristics and teacher behavior. They argued that ". . . if it is not possible in advance to identify 'the good teacher,' efforts should be concentrated on the making of good teachers."

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[101] Alduino A. Adelini, "Criteria for Determining Teacher Effectiveness in the Santa Clarita Community College District" (unpublished Doctoral dissertation, Brigham Young University, Provo, Utah, 1972).

[102] Morgens Jansen, Poul Erik Jensen, and Peer Mylov, "Teacher Characteristics and Other Factors Affecting Classroom Interaction and Teaching Behavior," International Review of Education, 18:536, Special Number 4, 1973.

Okey and Brown[103] grouped 37 clusters of teaching competencies into three experience levels. They theorized that teachers do not require training in all teaching competencies prior to entry into the classroom. They described the experience levels as follows:

> Level I. Basic competencies for novice teachers and paraprofessionals. These skills should be acquired either before entry into the classroom or during initial contacts with students.
> Level II. Competencies for experienced teachers. These are skills which may best be developed through in-service or on-the-job training.
> Level III. Skills for a master teacher or a teacher assuming leadership responsibilities (e.g. team leader or department head) in addition to teaching.

Maurer, Kies, and Craig[104] reported on the vast Pennsylvania competency based teacher education project which culled 66 statements of teaching competencies common to all areas, subjects, and levels from over 500,000 statements submitted by 1,400 teacher education programs in 83 colleges and universities over the entire state. The 66 competency statements were grouped under seven broad headings: (1) theoretical knowledge of educational concepts; (2) implementation of theoretical concepts and information in the classroom; (3) developing students' abilities; (4) teaching techniques; (5) evaluating and measuring students' progress; (6) knowledge of growth and development; and (7) professional attitude.

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[103] James R. Okey and Jerry L. Brown, "Competencies for Performance Based on Teacher Training," Research in Education, 8:4-5, December, 1973.

[104] Wallace M. Maurer, Kathleen Kies, and Samuel B. Craig, Jr. (eds.), Generic Teaching Competencies: An Interim Inventory for Subsequent Independent Development by Pennsylvania Colleges and Universities (Harrisburg, Pennsylvnnia: Pennsylvania Department of Education, June, 1973).

There is much current emphasis on competency based teacher education. Dodl[105] and his colleagues at Florida State University assembled a phenomenal catalog which lists literally hundreds of outcomes that could be expected from competent instruction. Which of the many hundreds of competencies listed should be selected for implementation?

Brown and Okey[106] concluded that the current state of competency lists offer more than any one program could hope to achieve in a reasonable time. They suggested that selection of appropriate competencies is a priority task for any program planner. To that end they offered several strategies that might be followed in the selection of outcomes. One of them, "Listen to a trusted expert," who can verify certain skills as important, seemed appropros to this study. It is obvious that each institution must rank its own special list of competencies to meet its own specific goals and objectives. Hence the need for clarification of those competencies that are essential for effective teaching in the community colleges of Tennessee.

Dodl and Schalock[107] maintained that only when a teacher has the appropriate knowledge, is able to perform in a stipulated manner, and

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[105]Norman Dodl et al., Florida Catalog of Teacher Competencies (Tallahassee, Florida: Florida State University, 1971).

[106]Jerry L. Brown and James R. Okey, "A Performance Approach to Teacher Education," Viewpoints, 49:56, July, 1973.

[107]Norman R. Dodl and H. Del Schalock, "Competency Based Teacher Preparation," in M. Vere DeVault, Dan W. Anderson, and George E. Dickson, Competency Based Teacher Education, Book One: Problems and Prospects for the Decade Ahead (Berkeley, California: McCutchan Publishing Corporation, 1973), pp. 46-47.

can produce anticipated results with learners, will he/she be adjudged competent. To that ideal, Cohen[108] dared to dream as he penned his "Heretical Concepts" for the community college of 1979. He wrote:

> Faculty job specifications are written annually to allot the specific tasks which must be fulfilled. The instructor's teaching objectives and his duties as a member of the team of specialists in his field are delineated and included in his contract. Under this system, instructors are rarely dismissed. If it seems desirable, they may be reassigned to different tasks. Those who choose to stay within the institution usually find a place doing work in which they prove competent.

IV. THE DELPHI TECHNIQUE

Introduction

The Delphi technique is a research method devised during the 1950's and developed during the 1960's by mathematician-philosopher Dr. Olaf Helmer and his colleagues at the RAND Corporation of Santa Monica, California.[109] Although its original purpose was for projecting the future, it has become an important means of attaining agreement among experts on almost any subject imaginable.[110] According to Blackman[111]

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[108] Arthur M. Cohen, Dateline '79: Heretical Concepts for the Community College (Beverly Hills, California: Glencoe Press, 1969), p. 46.

[109] Alvin Toffler, Future Shock (New York: Random House, Inc., 1970), p. 409.

[110] Harold G. Shane, The Educational Significance of the Future (Bloomington, Indiana: Phi Delta Kappa, Inc., 1973), p. 12.

[111] A. Wade Blackman, Jr., "The Use of Bayesian Techniques in Delphi Forecasts," Technological Forecasting and Social Change, 2:261, 1971.

Delphi procedures ". . . elicit opinions from a group with the aim of formulating a group judgment for subject matter where precise information is lacking."

Delphi has found increasing utility as a research tool that assists educators in consensual decision making. Because educational research is often hindered by imprecision, this comparatively new research method was employed for the collection of data in this study. Therefore, an explanation of it is presented herewith, followed by a brief historical background of the technique and a summarization of several educational studies which also utilized Delphi.

Explanation of the Technique

"Delphi could be described as an elegant method for developing a consensus," wrote Bernstein and Cetron.[112] They continued:

> . . . it is a polling technique employed for the systematic solicitation of expert opinion. . . . Its methodology includes the polling of experts representing the controlling factors and from these data developing a consensus which can be used in planning. Its advantage consists in the systematic treatment of data that include the expert's intuitive assessment of related imponderables.

By its very nature, Delphi employs informal reasoning as opposed to the formalized and logical reasoning processes utilized in the so-called "exact sciences." According to Helmer,[113] this informal reasoning may,

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[112] G. B. Bernstein and M. J. Cetron, "SEER: A Delphic Approach Applied to Informal Processing," Technological Forecasting, 1:33, June, 1969.

[113] Olaf Helmer and Nicholas Rescher, On the Epistemology of the Inexact Sciences (Santa Monica, California: The Rand Corporation, 1960), p. 2.

at least in part, rely on reference to intuitively perceived facts or implications. Therefore, Delphi does not attempt to report its findings with great precision and exactness. Hall[114] succinctly described it as a "system of smoothed guesses."

"Projections into the future, on which public policy decisions must rely," wrote Helmer,[115] "are largely based on the personal expectations of individuals rather than on predictions derived from a well-established theory." Even a formal, mathematical model is subject to intuitive intervention because individuals usually bring their own expertise to bear on application of the model. Thus, in Helmer's view, the intuitive insights of experts should be utilized actively and systematically as a means for input in decision making rather than passively accepting whatever happens to come along.

Bright[116] considered the question, "By what techniques of inquiry can we get improved information out of the minds of knowledgeable people?" Answering his own query, he suggested the utilization of a committee of experts. He contended that group endeavor is superior

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[114]P. D. Hall, "Computer Systems," in Gordon Wills, David Ashton, and Bernard Taylor (eds.), Technological Forecasting and Corporate Strategy (New York: American Elsevier Publishing Company, Inc., 1969), p. 199.

[115]Olaf Helmer, "Analysis of the Future: The Delphi Method," in James R. Bright (ed.), Technological Forecasting for Industry and Government Methods and Applications (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), p. 118.

[116]James R. Bright, A Brief Introduction to Technology Forecasting Concepts and Exercises (Austin, Texas: [n.n.], 1972), pp. 5-1, 5-2.

to individual expert opinion for two reasons: (1) it brings a broader range of skills and experience to bear on the problem; (2) the experts supposedly challenge each other to develop reasoning and to improve the use of available data. Accordingly, the Delphi method was designed to improve on the use of expert opinion in just that manner.

Because typical committee deliberations often suffer from such problems as poor interpersonal relationships, overpersuasiveness, and bandwagon effects, Delphi is designed to avoid such pitfalls. The committee members simply never meet together. According to Chambers, Mullick, and Goodman,[117] ". . . the human environment is not a concern, since openness, interaction, and trust are neither sought nor necessary." In Boehm's[118] opinion, "This eliminates the possibility that the majority will be stampeded by a small, vocal minority, e.g., a few table pounders with loud voices and cleverly turned phrases, or the boss himself." Helmer[119] elaborated further:

> This technique replaces direct debate by a carefully designed program of sequential individual interrogations (best conducted by questionnaires) interspersed with information and opinion feedback derived by computed consensus from the earlier parts of the program.

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[117]John C. Chambers, Satinder K. Mullick, and David A. Goodman, "Catalytic Agent for Effective Planning," Harvard Business Review, 49:110, January-February, 1971.

[118]George A. W. Boehm, "Futurism: Not Oracles. Planners. They're Working to Shape Tomorrow," Think, 36:17, July-August, 1970.

[119]Helmer, On the Epistemology . . . , op. cit., p. 33.

According to Martino,[120] Delphi was designed to improve the use of expert opinion through polling based on three conditions: (1) anonymity of response, (2) wide statistical distribution, and (3) iteration and controlled feedback of reasoning. To elucidate, the experts should not know who else is on the panel, but if complete anonymity is not possible, they should not know who is associated with a particular response. As to the second condition, the statistical group response must preserve intact a distribution that remains wide in order to take into account the spread of opinion. The third condition restricts feedback only to the current status of the collective, relevant opinion of one panel, thereby eliminating typical face-to-face group distractions. Dalkey[121] extended Martino's three conditions into four by separating iteration from its partner, feedback. He maintained that iteration tends to keep the respondents task oriented by the superimposition of the dimension of repetition.

In a typical Delphi investigation, the panel of "experts" are sent a series of mailed questionnaires designed to secure input followed by group or individual feedback of responses. Three or more "rounds" of questionnaires are generally used. The first questionnaire may or may

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[120]Joseph P. Martino, Technological Forecasting for Decision-Making (New York: American Elsevier Publishing Company, Inc., 1972), pp. 20-21.

[121]Norman C. Dalkey, The Delphi Method: An Experimental Study of Group Opinion (Santa Monica, California: The Rand Corporation, 1969), p. 16.

not contain open-ended questions. At any rate, it will ask the participants to provide their judgment concerning the question(s) to be studied.[122]

The second questionnaire feeds back to the respondents the spread of opinions as revealed by the responses collated from the first round. The panel members are given an opportunity to revise their original responses in light of this information. Additionally, they are asked to state reasons for any change from their original position. The second round may reveal a consensus on some items. The third questionnaire not only reveals the revised ratings and majority opinions, but also provides a last chance for further revision of opinion. A fourth round may be required to reach a complete consensus.[123]

Historical Background

Helmer and his "think tank" colleagues at RAND developed the Delphi method especially for the prediction of long-range growth in national defense. Because its initial function was that of futures planning, it was dubbed the "Delphi" technique in honor of the legendary oracle of

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[122]Richard Weatherman and Karen Swenson, "Delphi Technique," in Stephen P. Hencley and James R. Yates (eds.), Futurism in Education: Methodologies (Berkeley, California: McCutchan Publishing Corporation, 1974), p. 98.

[123]Theodore J. Gordon and Robert H. Ament, Forecasts of Some Technological and Scientific Developments and Their Societal Consequences (Middletown, Connecticut: The Institute for the Future, 1969), pp. 2-3.

Apollo at Delphi in ancient Greece.[124] The interpretation by temple priests of the strange utterances of a prophetess called Pythia greatly influenced the development of religion, economics, and politics of Greece. Similarly, panels of "experts" now use the Delphi method to interpret analogous aspects of the future.

Modern-day Delphi, wrote Boehm,[125] ". . . is essentially the method that James Farley used when he was Postmaster-General during the early Roosevelt Administration, to query precinct captains and arrive at his remarkably accurate forecasts of elections." However, according to Pill,[126] its first real application by RAND was considerably plebeian. The first experiment with the Delphi technique, around 1948, concerned an attempt to improve the prediction of horse race outcomes.

In an attempt to determine whether expert opinions and predictions could be useful in policymaking, Kaplan, Skogstad, and Girschiek used the Delphi at RAND around 1950 and found that the process tended to produce significantly positive results. In 1953, Helmer and Dalkey made the first important use of Delphi when they used a version of it to seek the opinion of seven experts on atomic warfare as a part of a national defense plan. Delphi's first nonmilitary application of any

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[124]Robert C. Judd, "Delphi Method: Computerized 'Oracle' Accelerates Consensus Formation," College and University Business, 49:30, September, 1970.

[125]Boehm, op. cit., p. 21.

[126]Juri Pill, "The Delphi Method: Substance, Context, A Critique and an Annotated Bibliography," Socio-Economic Planning Sciences, 5:58, February, 1971.

significance was made in 1963 by Helmer and Quade. Helmer and Gordon created widespread interest in the technique when, in 1964, they made the first relatively large scale utilization of it to predict future technological events.[127]

By reason of the procedures performed in the technique, it has come to mean more than its earliest interpretation. Carvell[128] contended that the basic rationale of Delphi makes its use feasible in any field affected by the social process. Simply stated, in the absence of absolute certainty or a convincing reason for selecting a particular course of action, one must turn to the expert for advice. According to Judd,[129] ". . . the possibilities for its usefulness extend far beyond those of long-range planning into the realm of quick inexpensive and democratic consensus formation on today's problems."

Because this tool for group prediction and inquiry avoids some of the biases normally introduced in other group processes for obtaining information, it has come into popular practice.[130] In recent years, hundreds of studies using variations of the Delphi have been conducted covering a wide range of subjects including: scientific breakthrough, economic forecasts, medical developments, automation developments,

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[127]Ibid., pp. 58-59.

[128]Fred Carvell, Occupational Forecasting and Trending: An Early Warning System for Educational Planning (Sacramento, California: Educational Resources Agency, 1969), p. 15.

[129]Judd, op. cit., p. 30.

[130]Robert A. Kaufman, Educational System Planning (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972), p. 45.

societal trends, employee benefits, physical and biomedical technologies, corporate forecasting, and educational developments.[131]

In an article devoted to a review of several studies pertaining to the use of the Delphi technique in the field of education, Weaver spoke to the need for educational decision makers to incorporate the use of such tools in planning outcomes. Although Delphi was created as a forecasting method, he saw great promise in its application as, ". . . a planning tool which may aid in probing priorities held by members and constituencies of an organization."[132]

Delphi Studies

In 1970, Cyphert and Gant[133] conducted one of the earliest large-scale Delphis for the University of Virginia in which they sought opinion concerning goals for its School of Education. The study involved more than 400 respondents including students, faculty, and leaders at the University, off-campus educators; influential lay-persons, politicians, journalists, business and labor leaders; and teacher educators of national renown. In general, the results showed concern

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[131]Theodore J. Gordon, "The Current Methods of Futures Research," in Alvin Toffler (ed.), The Futurists (New York: Random House, 1972), p. 170.

[132]W. Timothy Weaver, "The Delphi Forecasting Method," Phi Delta Kappan, 52:271, January, 1971.

[133]Frederick R. Cyphert and Walter L. Gant, "The Delphi Technique: A Tool for Collecting Opinion in Teacher Education," The Journal of Teacher Education, 21:419-23, Fall, 1970.

with increasing the quality of educators graduated by the school, the improvement of its curricula, and the discovery and development of the knowledge needed to bring about greater quality.

Gray[134] distilled 147 competency statements from 600 originally submitted in the first iteration of his Delphi study to identify competencies needed by personnel engaged in program planning in state division of vocational-technical education. He concluded that Delphi is a tool of inquiry which may be used successfully to gain convergent expert opinion dealing with both present and future concerns in education. He recommended that persons concerned with improving educational research should consider Delphi as a means of gaining information.

Cochran[135] asked four different panels to evaluate 19 different characteristics of teachers used at East Texas State University. He concluded that the Delphi technique performed very well at determining consensus on those kinds of evaluation criteria.

Emmons'[136] study indicated not only that a panel of individual experts could be influenced to generate a list of competencies to test Delphi's utility in the selection of secondary school principals, but

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[134]Kenny Earl Gray, "Competencies Needed by Personnel Engaged in Program Planning in State Division of Vocational-Technical Education" (unpublished Doctoral dissertation, Ohio State University, Columbus, 1970).

[135]Samuel W. Cochran, M. M. Crumley, and B. N. Overby, "A Study of Values Employing Delphi Techniques" (unpublished Doctoral dissertation, East Texas State University, Commerce, 1970).

[136]Jean Franklin Emmons, "Use of the Delphi Technique in Establishing Criteria for the Selection of a Secondary School Principal" (unpublished Doctoral dissertation, Ohio State University, Columbus, 1971).

also that the technique induced those individuals to move toward consensus concerning the competencies.

Falek[137] polled a total of 51 administrators, faculty members and students from 14 different community colleges within the state of Pennsyvlania to identify, by means of the Delphi technique, 14 counselor functions at the community college level. It was concluded that all members of the community college could be used with equal reliability in a Delphi study.

Bentley[138] tested the applicability of the Delphi technique for formulating, debating, and getting consensus on goals and priorities which expressed a school district's aspirations for itself. He concluded that Delphi did indeed produce the necessary consensus on goals and priorities.

Gazzola[139] concluded that Delphi is a useful method in educational planning because it gathers information based on individual opinions and fosters within-group consensus. His study indicated that Delphi fostered greater consensus than the discussion method and that consensus information based on individual opinion was more reliable than the discussion method. The study was based on the use of Delphi as a

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[137]Jared Ira Falek, "Community College Counselor Functions: As Developed by the Delphi Technique" (unpublished Doctoral dissertation, Ohio University, Athens, 1971).

[138]James Thomas Bentley, "The Applicability of the Delphi Technique for Setting Goals and Establishing Priorities in an Urban School District" (unpublished Doctoral dissertation, University of Iowa, Iowa City, 1971).

[139]Peter George Gazzola, "The Effect of the Delphi Technique on Group Consensus in Educational Planning" (unpublished Doctoral dissertation, University of Arizona, Tucson, 1971).

technique for planning curricular changes in the Tucson, Arizona, Public School District Number One.

One hundred persons with expertise in student teaching participated in Dock's[140] Delphi study. The panel consisted of two directors of student teaching programs in NCATE approved institutions, two college or university supervisors of student teaching, two cooperating teachers, two principals and one certification official in the state department of education, for a total of nine individuals from ten randomly selected states. Ten authors in the area of student teaching were also on the panel. As a result of the study, 16 specific competencies were identified which were considered important for cooperating teachers to possess.

Brown[141] used Delphi to develop a collection of 30 characteristics essential for teacher effectiveness for use by immediate supervisors of general business teachers in evaluation of teacher performance.

Uhl,[142] on behalf of the southeastern office of the Educational Testing Service, sought to validate an institutional goals inventory

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[140]Harold A. Dock, "Improving the Competencies of the Cooperating Teacher in the Student Teaching Program" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1971).

[141]Betty Jean Brown, "The Relationship Between Supervisor and Student Evaluations of Teaching Effectiveness of General Business Teachers" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1971).

[142]Norman P. Uhl, Identifying Institutional Goals (Durham, North Carolina: National Laboratory for Higher Education, 1971).

which could be presented to an institution of higher education as an inclusive survey package for institutional self-examination purposes.

Waldera[143] utilized Delphi to poll 41 participants from nine suburban school districts across the United States concerning possible future roles for educators. School board members, administrators, and teachers, generated 125 possible roles, the most valuable of them being: instructional leader, curriculum specialist, trainer of teacher aides, media specialist, master teacher, lay teacher, team secretary, intern aide, diagnostician, and research and evaluation specialist.

In her study to determine priority of needs for changes in college student environment, Curran[144] found Delphi to be a useful technique for building consensus and an effective means of communication across status lines. She also concluded that it was an efficient means for identifying concerns.

Hensley[145] utilized Delphi to assess the role of the Special Education Supervisor in eight Missouri regional diagnostic clinics. Clinic administrators, clinic social workers, clinic nurses, clinic

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[143]Donald R. Waldera, "Anticipated Roles of Future Educators: A Delphi Study" (unpublished Doctoral dissertation, Univeristy of Massachusetts, Amherst, 1972).

[144]Mary Virginia Curran, "Use of the Delphi to Determine Priority of Needs for Changes in College Student Environment" (unpublished Doctoral dissertation, Case Western Reserve University, Cleveland, Ohio, 1972).

[145]Claude Duane Hensley, "A Delphi Procedural Analysis of Role Function for the Special Education Supervisor in Diagnostic Clinics Serving Sparsely Populated Regions of Missouri" (unpublished Doctoral dissertation, University of Minnesota, Minneapolis, 1972).

special education supervisors, college and university professors, employees of the Missouri State Department of Education, and local school administrators participated in the study. Significant differences were detected among the seven groups as to the expected role function of the Special Education Supervisor. However, he concluded that Delphi helped the groups to become more congruent.

Carey[146] determined the future in-service training needs of school principals in Massachusetts by means of a Delphi study. He found that the school principal, in the next decade, would need a knowledge of the current trends in education, and a knowledge of the curriculum and instructional programs in his school. Principals would need skills in working in groups, skill in leading the school administrative team, and human relations skills.

Chaney[147] developed an evaluative instrument specifically designed for rating student teachers of skills subject in business. The rating scale consisted of 37 characteristics distilled from three rounds of a Delphi survey as determined by a panel of seven nationally recognized leaders in business education.

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[146]Dennis Michael Carey, "An Assessment of the Future In-Service Training Needs of School Principals in Massachusetts: A Delphi Study" (unpublished Doctoral dissertation, University of Massachusetts, Amherst, 1972).

[147]Lillian Alice Hunt Chaney, "The Development of an Instrument for Evaluating Student Teachers of Skills Subjects in Business" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1972).

Griffith[148] investigated the applicability of Delphi as a research technique for involving selected community members in the establishment of educational goals. In four rounds, 60 selected individuals distilled and ranked eight goals out of 76 statements generated by the first questionnaire. Griffith concluded that Delphi was an effective method for provision of input which could influence the policies and practices in public education.

McLeod[149] applied the Delphi technique to identify goals and priorities for the Alabama Consortium for the Development of Higher Education. He concluded that Delphi is a valuable technique in goal formation process.

According to Nardoni's[150] study, when focused on predictive trends, Delphi caused educational planners to consider a greater number of factors when forecasting the future. He considered this aspect important. Educational planners must acquire a greater knowledge of the myriad of possible future trends in the total spectrum of society in order to develop more comprehensive plans to effect relevant institutional change.

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[148]Edwin Herschel Griffith, "The Applicability of the Delphi Technique as a Method of Establishing Educational Goals" (unpublished Doctoral dissertation, University of Iowa, Iowa City, 1973).

[149]Thomas Alex McLeod, "A Study to Identify the Goals of a Voluntary Higher Education Consortium by Utilization of the Delphi Technique" (unpublished Doctoral dissertation, University of Alabama, University, 1973).

[150]Gary Allen Nardoni, "An Application of the Delphi Process to Increase the Scope of Factors Considered by Educational Planners When Forecasting Educational Futures" (unpublished Doctoral dissertation, Wayne State University, Detroit, Michigan, 1973).

Rasp[151] used the technique to consult with a broad, representative sample of residents of the State of Washington as the basis for establishing goals for the Washington Common Schools. He collected opinions from a total of 866 persons representing seven occupational groups; teachers, administrators, students, PTA presidents and school directors, business-labor professions, higher education and the staff of the State Superintendent of Public Instruction. Rasp was able to identify 27 items which met the criteria established to define desired educational outcomes for the common school system.

Collins[152] used a panel of 27 superintendents to determine components of administrative competency for Tennessee's superintendents of schools.

Breeding[153] used a modified Delphi to determine the competencies beneficial to retired and elderly persons as perceived by 24 Tennessee gerontologists and 24 "Successfully retired" Tennesseans. The gerontologists reached concensus on 52 distinct statements of knowledge and 75 nonoverlapping statements of skills or competencies.

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[151]Alfred F. Rasp, "Delphi: A Strategy for Decision Implementation," Educational Planning, 1:42-43, October, 1974.

[152]William Eugene Collins, Jr., "Components of Administrative Competency as Determined by Tennessee Superintendents" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1974).

[153]Robert Lee Breeding, "A Study of the Knowledge and Skills or Competencies Beneficial to Retired and Elderly Tennesseans" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1975).

V. SUMMARY

Carman[154] called on Abraham Lincoln to help make a point about the relationship of the past to the present and the future. Lincoln's laconic remark and Carman's cogent observations serve to unite the disparate aspects of this chapter. To wit:

> In his celebrated "House Divided Against Itself" speech of 1858 Lincoln said: "If we could first know where we are and whither we are tending, we could better judge what to do and how to do it." . . . Too many of our institutions of learning flounder along like a rudderless ship without a sense of direction or ultimate goal. If the teacher is to be effective he needs to have clear objectives and relate these to the objectives of the institution in which he teaches.

The community college has evolved from an institution created primarily as a preparatory school to one encumbered with a proliferation of programs and students so diverse as to create for itself an "identity crisis." Tennessee's community colleges, albeit infants in the family of such institutions, experience similar growing pains. Their need for thoroughly competent teaching personnel cannot be denied. Thus, the search for the effective teacher is ongoing.

Many have sought to define what the "good" teacher ought to be. In recent years, that search has been typified by the pursuit of instructional competencies, the effect of which may be evaluated and measured. The Delphi technique, a research method that facilitates consensual decision making, has become increasingly acceptable as a means by which the formulation of such evaluative criteria may be accomplished. Therefore

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[154] Carman, op. cit., p. 46.

this chapter attempted to provide a compendium of literature relating to the growth and maturation of the generic community college, the continuing quest for teachers competent to teach in such institutions, and the means by which such competencies might be defined and agreed upon.

CHAPTER III

METHODOLOGY

I. INTRODUCTION

Background

A review of the literature related to this study disclosed that present-day community colleges attempt, too frequently, to be all things to all people and therefore need to define more clearly their fields of endeavor. Since one of the main commitments of the community college is teaching, it seems obvious that the institution's instructional activities should be carefully defined.

The literature also revealed that teachers and administrators often lack a clear concept of the teaching role. This means that teachers are often employed, evaluated, terminated, or continued on the basis of incongruent notions concerning the instructional task. If education in general and teachers specifically are to be held accountable for the outcomes of publicly supported instruction, then improved agreement should be reached as to the performances required.

Ideally, community colleges represent the needs and best interests of the community in which they are located, yet many community colleges are not autonomous. They are often organized along the lines found in typical senior colleges and universities with separate administrations under a central governing body. Such is the case with Tennessee's ten state community colleges. They are governed collectively by the State

Board of Regents which also maintains control over one of the two state university systems.

Because Tennessee's community colleges are members of this system, the study sought to consider more than provincial concerns, namely an approach that would permit the acquisition of information both on a local and statewide basis. The Delphi Technique, discussed below, was considered by the writer to be an effective means for securing a consensus reflecting both of these levels of interest.

Purpose of the Chapter

The purposes of this chapter are to describe: (1) the development of the survey instruments used in collection of data; (2) the selection of the population of respondents; (3) the collection of the data; and (4) the techniques used in analysis of the data.

II. DEVELOPING THE SURVEY INSTRUMENTS

Rationale for Use of Delphi

Many variables in educational research are of such nature that they cannot be measured directly but must be evaluated on the basis of subjective judgment. After a review of literature concerning the Delphi technique, the writer decided that this method was appropriate. There was little doubt that Delphi had become increasingly popular in educational research. Martino[1] has stated that Delphi possesses an underlying order that "can serve to give more confidence . . . as a means for obtaining a group consensus.

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[1]Joseph P. Martino, "The Precision of Delphi Estimates," Technological Forecasting, 1:299, March, 1970.

Weatherman and Swenson[2] classified three typical uses of the Delphi in educational research: (1) the forecasting probe and (2) the strategy probe which place emphasis on what "will be," and (3) the preference probe which emphasizes what "should be." This study utilized the preference probe. It sought to identify those instructional competencies that ought to exist as criteria for effective teaching among Tennessee community colleges.

According to Mouly,[3] the survey is an essential tool for obtaining a consensus. It is especially versatile and practical for educational research because it can provide data from a wide distribution for consideration of the spread of opinion. This broad range of data can also be combined to contribute collectively significant data.

Turoff[4] listed five objectives for use of a Delphi, relating to consensus formation and diversity of opinion, as follows:

1. To determine or develop a range of possible alternatives
2. To explore or expose underlying assumption or information leading to differing judgments
3. To seek out information which may generate a consensus of judgment on the part of the respondent group
4. To correlate informed judgments on a topic spanning a wide range of disciplines
5. To educate the respondent group as to the diverse and interrelated aspects of the topic

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[2]Richard Weatherman and Karen Swenson, "Delphi Technique," in Stephen P. Hencley and James R. Yates, Futurism in Education: Methodologies (Berkeley, California: McCutchan Publishing Corporation, 1974), pp. 100-101.

[3]George J. Mouly, The Science of Educational Research (New York: American Book Company, 1963), pp. 231-35.

[4]Murray Turoff, "The Design of a Policy Delphi," Technological Forecasting and Social Change, 2:149, 1970.

There is no fixed structure to the Delphi technique. There have been many deviations and innovations from its original use. Dalkey,[5] one of the originators of the technique, observed that within the three basic features of Delphi (anonymity, controlled feedback, and statistical group response) it is possible to have many variations. He would approve modification in procedure ". . . if the exercise is conducted in the context of policy formulation where group acceptance is an important consideration."

An advocate of the adaptation of Delphi to the field of educational research, Judd[6] enumerated three areas in higher education that merit such application: (1) formulation of educational goals and objectives; (2) improvement of curriculum and campus; and (3) development of evaluation criteria. Regarding the development of evaluation criteria, he observed:

> One of the most obvious uses of the Delphi technique in the educational scene would seem to be its use in finding consensus as to values, or evaluations. An example would be the kind of rating scale frequently encountered in rating teachers.

Although Mouly[7] described the rating scale as a relatively crude means of research, he maintained that it is quite a useful survey technique because:

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[5]Norman C. Dalkey, "The Delphi Method: An Experimental Study of Group Opinion," in Norman C. Dalkey, Daniel L. Rourke, Ralph Lewis, and David Snyder, Studies in the Quality of Life: Delphi and Decision-making (Lexington, Massachusetts: D. C. Heath and Company, 1972), pp. 20-21.

[6]Robert C. Judd, "Use of Delphi Methods in Higher Education," Technological Forecasting and Social Change, 4:177, 1972.

[7]Mouly, op. cit., pp. 297, 320.

> . . . a more adequate appraisal of an overall phenomenon can be obtained by the separate rating of its various components. . . . These separate ratings can then be combined into a meaningful overall index.

Number of Iterations

Basic to the Delphi procedure is reiteration. Generally, at least three sequential questionnaires, opinionnaires, or "probes" are sent to individuals noted for their expertise concerning the subject being investigated. Helmer[8] maintained that in some instances more than three rounds of anonymous debate by questionnaire might be required to acquire a true consensus. He suggested that in some cases consensus might never be reached. Even when consensus cannot be attained, Delphi serves to crystallize the reasoning processes leading to positions of polarity and helps to clarify the issues.

Cyphert and Gant[9] found that 99 percent of respondents' changes in opinion occurred on the third questionnaire, ". . . which informed them of the initial 'consensus' reached by the total group." Weatherman and Swenson[10] questioned the need for going beyond the third iteration.

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[8]Olaf Helmer, "Analysis of the Future: The Delphi Method," in James R. Bright (ed.), Technological Forecasting for Industry and Government: Methods and Applications (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), p. 117.

[9]Frederick R. Cyphert and Walter L. Gant, "The Delphi Technique: A Tool for Collecting Opinion in Teacher Education," The Journal of Teacher Education, 21:423, Fall, 1970.

[10]Weatherman and Swenson, op. cit., p. 109.

Conversely, they also questioned the validity of the results of those studies which have contained only two rounds. Therefore, this study utilized three successive opinionnaires to provide individual consideration and input, followed by group feedback of responses.

Selecting Competency Statements

Originally, Delphi research was characterized by open-ended questions on the first-round instrument. Thus, the panel of experts would be asked to generate unstructured responses. Although the tabula rasa approach is perfectly acceptable, there are objections to it. Boehm[11] observed, "Inevitably, a panel in the first stage volunteers so many ideas that similar ones have to be bunched in order to be processed during the later stages."

Uhl[12] eliminated this problem by beginning his first round at the second-round stage. That is, the study began with a carefully prepared listing of statements to which the panel members were to respond. Much time was saved that otherwise would have been needed to edit and collate

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[11]George A. W. Boehm, "Futurism: Not Oracles. Planners. They're Working to Shape Tomorrow," Think, 36:21, July-August, 1970.

[12]Norman P. Uhl, Identifying Institutional Goals (Durham, North Carolina: National Laboratory for Higher Education, 1971).

the usual first-round responses. Similar approaches were used by Chaney,[13] Hensley,[14] and Nardoni.[15]

A search of the literature revealed many listings of characteristics and competencies against which effective teaching could be measured. The exhaustive research done by the Pennsylvania Department of Education,[16] in developing competency based teacher education programs for the commonwealth, provided a comprehensive listing of statements that were considered common to all areas, subjects, and levels. Permission was sought and secured to include the results of that research in this study (see Appendices G and H). Accordingly, 28 competency statements from the Pennsylvania study were interpolated to form the basis for Probe I. Only those statements were included which had been rated as critical teaching competencies by a group of 586 professional educators. The competency statements utilized are listed in a copy of Probe I, Appendix K.

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[13]Lillian Alice Hunt Chaney, "The Development of an Instrument for Evaluating Student Teachers of Skills Subjects in Business" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1972).

[14]Claude Duane Hensley, "A Delphi Procedural Analysis of Role Function for the Special Education Supervisor in Diagnostic Clinics Serving Sparsely Populated Regions of Missouri" (unpublished Doctoral dissertation, University of Minnesota, Minneapolis, 1972).

[15]Gary Allen Nardoni, "An Application of the Delphi Process to Increase the Scope of Factors Considered by Educational Planners when Forecasting Educational Futures" (unpublished Doctoral dissertation, Wayne State University, Detroit, Michigan, 1973).

[16]Sam B. Craig, Jr. (coordinator), PaCBTE Handbook: A Resource for Developing Competency Based Teacher Education Programs (Harrisburg, Pennsylvania: Pennsylvania Department of Education, 1974).

Designing the Instruments

The first-round opinionnaire (Appendix K) contained 28 competency statements. Participants were asked to rate each item on a scale ranging from one (very important) to four (unimportant). Each item was to be rated according to its importance for effective teaching in each of the three instructional areas of the community college: (1) transfer, (2) vocational-technical, and (3) continuing. Panel members were encouraged to add or delete words, phrases, or statements as they desired.

The second iteration (Appendix M) reported tne mean ratings assigned each item by program type. After editing and collating suggestions from Probe I, 22 more competency statements were added to the original list. One of the original statements was made into two separate statements at the request of several panelists. The second-round opinionnaire consisted of 51 items. Participants were asked to give reasons for any revisions.

Probe III, the third-round opinionnaire (Appendix O) reported not only the second-round revisions and the reasons for them, and the mean ratings given each item by program type, but also the percentage of respondents rating an item higher or lower than the mean. It consisted of the same 51 items and was 14 pages long. No further revisions were called for; however, participants who felt inclined to explain or defend a position taken outside the indicated mean were encouraged so to do.

In all three probes the statements began with the phrase "The effective community college teacher . . ." and continued with the

actual statement in vertically aligned rectangular boxes beneath the opening phrase.

The probes were color coded primarily for ease in analysis of data. Of secondary importance, however, the writer thought that the bright, unusually colored paper upon which the opinionnaires were printed might prevent their loss among stacks of paper on the respondents' desks and thus insure a better return! Opinionnaires sent to the various groups were printed on colored paper as follows: (1) presidents, powder blue; (2) deans of instruction, russet; (3) division heads for humanities, goldenrod; (4) division heads for social sciences, salmon; (5) division heads for science and mathematics, gray; (6) division heads for vocational-technical education, pink; and (7) heads or directors of continuing education, yellow.

Because of the employer/employee relationship among respondents, an effort was made to insure absolute anonymity. The respondents were asked not to sign their names but to indicate the grand division (west, middle, or east) of the State of Tennessee in which their community college was located.

III. SELECTING THE PANEL

According to Gordon and Ament,[17] the value of the results of any Delphi depends largely on the excellence and cooperation of the

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[17]Theodore J. Gordon and Robert H. Ament, Forecasts of Some Technological and Scientific Developments and Their Societal Consequences (Middletown, Connecticut: The Institute for the Future, 1969), p. 4.

participants. Weatherman and Swenson[18] concluded that the panel must be: (1) representative of the field of study; (2) competent and appropriately chosen; and (3) committed to the study. Carvell[19] elaborated further:

> The selection of experts for consultation is usually made on the basis of what may be called their reputation in their respective fields of endeavor. The selection process itself requires certain subjective judgments, and involves determining what categories of expertise are needed and determining who among the available experts in each field should be selected for questioning.

Helmer[20] acknowledged the difficulty surrounding the selection of Delphi panel members. To that problem, he wrote:

> The best that can be done when expert judgments have to be relied upon is to make the most constructive and systematic use of such opinion. In dealing with experts . . . . Much depends on how expert the experts are. Their proper selection presents many problems. There are difficulties in defining qualifications and measuring relative performance of experts. It is far from obvious what is meant—or should be meant—when somebody is labeled an "expert." Even given reasonable criteria of "expertness," it may not be easy to obtain adequate data for determining a person's degree of expertise.

Heath's[21] study utilized ten panel members to identify and rank the tasks of Tennessee state community colleges. Although the study did not use the Delphi technique, it did identify and rank the five most

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[18]Weatherman and Swenson, op. cit., p. 103.

[19]Fred Carvell, Occupational Forecasting and Trending: An Early Warning System for Educational Planning (Sacramento, California: Educational Research Agency, 1969), p. 19.

[20]Helmer, op. cit., pp. 118-19.

[21]Edward LeRoy Heath, "An Analysis of Differing Perceptions of the Tasks of Tennessee State Community Colleges" (unpublished Doctoral dissertation, Nashville, Tennessee: George Peabody College for Teachers, 1972).

influential "role set" members affecting the state's community colleges. They were (1) presidents of community colleges, (2) staff members of the State Department of Education, (3) members of the Tennessee State Board of Education, (4) deans and division chairmen in community colleges and (5) staff members of the Tennessee Higher Education Commission.

Before this study began, the investigator interviewed four of the state's ten community college presidents to determine the advisability of the research. Satisfied that interest in the study was sufficient, he met with all ten presidents in a joint meeting to obtain support for the project (Appendix A). Approval was given along with agreement to include in the study other staff members at each institution (Appendix B). After consultation with the presidents and his doctoral committee, the writer invited the presidents, deans, and division heads in each of Tennessee's ten community colleges, 74 persons, to form the Delphi panel. These individuals regularly evaluate teaching personnel for the purpose of hiring, terminating, or continuing employment (Appendix E). A listing of the participants is included in Appendix F.

IV. COLLECTING THE DATA

After seeking and receiving approval of the study from the Tennessee State Board of Regents (Appendices C and D), the opinionnaires were mailed to the panel. A self-addressed, stamped, return envelope was enclosed with each instrument to facilitate its return. All panelists were asked to rate every item in every program type, whether or not they worked within it. Additionally, they were asked to omit no judgments.

After all returns were collected on each iteration, the mean rating for each item was computed through use of the Statistical Package for Social Sciences[22] of the University of Tennesee Computer Center.

For the purpose of this study, each item on all three probes, was rated as to its importance for teaching at the community college level according to the three general program types found in Tennessee, namely, transfer, vocational-technical and continuing education. Numerical values were assigned to the opinionnaire choices so that a single score could be computed for each item under each program type. The number one was assigned to "very important," two to "important," three to "slightly important," and four to "unimportant." A low score would thus imply more importance and a higher score less.

For feedback to respondents on the second and third rounds of the survey, mean scores were used to signify the ratings assigned by the panel of experts. According to Koenker[23] the mean is the best measure of central tendency for the following reasons:

1. In computing the mean each score contributes its proportionate share
2. The mean is the most widely used and best understood measure of central tendency
3. The means of two or more distributions can be easily averaged, whereas medians or modes of two or more distributions cannot be averaged
4. The mean is used in higher statistical formulas, the median and mode are rarely used

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[22]Norman Nie, Dale H. Bent, and C. Hadlai Hull, Statistical Package for the Social Sciences (New York: McGraw-Hill Book Company, 1970).

[23]Robert H. Koenker, Simplified Statistics: For Students in Education and Psychology (Bloomington, Illinois: McKnight and McKnight Publishing Company, 1961), p. 4.

An item was considered to be "very important" if the mean rating fell between 1.00 and 1.75; as "important" if between 1.76 to 2.50; "slightly important" if between 2.51 through 3.25; and "unimportant" if from 3.26 to 4.00. These points were chosen arbitrarily and applied consistently because they represented essentially equal intervals between the numbers one and four.

V. ANALYZING THE DATA

Ranking the Competencies

Competency statements were ranked from highest to lowest by use of the mean, the highest ranking items having a perfect mean score of 1.00 and the lowest ranking items having a perfect mean score of 4.00. All 51 items were ranked according to program type and group to indicate statewide priorities. The ranking was accomplished with the aid of the "RANK" subprogram of the Statistical Analysis Systems computer program at the University of Tenneseee Computer Center. No statistical tests was applied to these rankings inasmuch as the Delphi method secures convergent expert opinion rather than dissects it. Furthermore, questions 1, 2, and 3 concerning the purpose of the study were answered without need for further analysis.

Determining Consensus

A high, medium, or low consensus as to the importance of each competency statement was established by computing the sum of the percent of responses for two contiguous choice categories. For example, if

47 percent of the respondents rated an item three (slightly important), and 45 percent rated it four (unimportant), the sum of the percentages would be 92 percent. This would indicate a high consensus as to the relative importance of the item. If 10 percent rated an item one (very important), and 18 percent rated it two (important), the sum of the percentages would be 28 percent. This would indicate a low consensus as to the relative importance of the competency statement. The classification for level of consensus was: 100-81 percent, high; 80-51 percent, medium; and 50-0 percent, low. Similar procedures were utilized by Dock,[24] Bratton,[25] and Gray[26] in their separate studies.

Testing the Hypothesis

Question 4, concerning the purpose of this study, led to the formulation of an hypothesis which was tested statistically. To accomplish this, intergroup comparisons were made of the mean scores for each of the 51 competency statements by program type.

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[24]Harold A. Dock, "Improving the Competencies of the Cooperating Teacher in the Student Teaching Program" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1971).

[25]Samuel Edward Bratton, Jr., "A Study of Role Conflict Among Elementary Principals and Its Relationship to Organizational Climate and Central Office Evaluation Procedures in Knox County, Tennessee" (unpublished Doctoral dissertation, University of Tennessee, Knoxville, 1973).

[26]Kenney Earl Gray, "Competencies Needed by Personnel Engaged in Program Planning in State Division of Vocational-Technical Education" (unpublished Doctoral dissertation, Ohio State University, Columbus, 1970).

According to Champion,[27] the most common method for evaluating differences between effects is the comparison of two groups of subjects with the group means as the basis for comparison. He wrote, ". . . carrying out separate t-tests will tell the investigator which means are significantly different from one another." However, t cannot be computed for the difference in sample means with populations of unequal variances. Instead, an approximation to t may be computed. Because the variances among the seven groups were not the same, such an approximation was utilized.

According to Nie,[28] such an approximation is not distributed as Student's t but may be treated as t with degrees of freedom. In order to obtain the probability of an approximated t, an F test must be performed. If the probability for F is greater than the .05 level of significance, pooled variance estimates should be used. If the probability for F is less than the .05 level of significance, separate variance estimates should be used. To facilitate this statistical analysis, subprogram "T-TEST" of the Statistical Package for the Social Sciences was utilized.

The level of probability that was utilized in the determination of true differences between means was arbitrarily set at .01. To that point, Koenker[29] wrote:

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[27]Dean J. Champion, Basic Statistics for Social Research (Scranton, Pennsylvania: Chandler Publishing Company, 1970), p. 124.

[28]Norman H. Nie et al., Statistical Package for the Social Sciences: Update Manual (Chicago: National Opinion Research Center, University of Chicago, 1972), pp. A-017-244-07,08.

[29]Koenker, op. cit., p. 85.

The probability level at which a difference between means becomes significant must be arbitrarily set. Many statisticians use the following general rules:

1. To be significant a difference between means must satisfy the .01 level of probability, which means that there is only 1 chance in 100 that the observed difference between means could be due to chance sampling.
2. A difference between means that fails to satisfy the .05 level of probability is considered as being a chance for insignificant difference.
3. When the difference between the mean falls between the .05 and .01 levels of probability we remain in doubt as to the significance of the difference and recommend further study.

CHAPTER IV

EXAMINATION OF THE DATA

I. INTRODUCTION

The data obtained through the means described in Chapter III are presented in this chapter in three ways: (1) determination of the competencies considered essential for effective teaching at the community college level within the State of Tennessee; (2) rankings of those same competencies; and (3) the differences that exist in ratings of the competencies according to intergroup comparisons. The results of tests and comparisons are introduced at appropriate points throughout the chapter.

II. DETERMINING THE COMPETENCIES

Probe I

The first-round opinionnaire was mailed to 74 individuals who work within the ten publicly supported community colleges of the State of Tennessee. Each individual had some responsibility for the selection, continuation, or termination of employment of teachers within their respective community colleges and/or divisions. The individuals were grouped according to their job descriptions and were divided into seven categories. Those categories and the population within each category were as follows: (1) ten presidents; (2) ten deans of instruction; (3) nine division heads, humanities; (4) 15 division heads, social

sciences; (5) ten division heads, science-mathematics; (6) ten division heads, vocational-technical education; and (7) ten division heads, continuing education. Hereafter, reference to division heads will be indicated by subject area name rather than through use of the full title.

Fifty-nine opinionnaires, or 80 percent, were returned from the total 74 that were mailed to the panel for Probe I. Of that number, eight, or 80 percent, were returned by presidents; nine, or 90 percent, were returned by deans; six, or 67 percent, were returned by humanities; 12, or 80 percent, were returned by social sciences; nine, or 90 percent, were returned by science-mathematics; and six, or 60 percent, were returned by continuing education. Table I gives the returns of all groups.

Respondents to Probe I were asked to rate 28 competency statements that were compiled from a review of literature and that were indicative of effective teaching at the community college level. They were told to indicate their opinions for each of the three types of community college instructional programs even if they were not involved in all three. They were instructed to change the wording of any statement and to add statements that should have been included. They were asked to include new statements only when they felt them to be very important.

Twenty-eight individuals, or 48 percent of the 59 respondents, made comments, asked questions, or suggested changes to cause a total of 18 revisions and the addition of 22 new competency statements. The full extent of these changes is reflected in Probe II as shown in its entirety in Appendix M.

TABLE I

RESPONSE PATTERNS

Group	Probe I		Probe II		Probe III	
	NS	NR	NS	NR	NS	NR
Presidents	10	8	10	9	10	8
Deans	10	9	10	7	10	6
Humanities	9	6	9	4	9	6
Social Sciences	15	12	15	7	15	9
Science-Mathematics	10	9	10	7	10	7
Vocational-Technical	10	6	10	7	10	5
Continuing	10	9	10	7	10	7
Totals	74	59	74	48	74	48

NS = Number sent.

NR = Number returned.

Probe II

The second-round opinionnaire was mailed to the same 74 individuals who were sent the first probe. Forty-eight opinionnaires, or 65 percent, were returned from the total 74 that were sent to the panel on the second iteration. Of that number, nine, or 90 percent, were returned by presidents; seven, or 70 percent, were returned by deans; four, or 44 percent, were returned by humanities; seven, or 47 percent, were returned by social sciences; seven, or 70 percent, were returned by science-mathematics; seven, or 70 percent, were returned by vocational-technical; and seven, or 70 percent, were returned by continuing. Table I shows the returns for all groups.

Probe II revealed the mean ratings from the first round on all of the original statements. Respondents to the second round were asked to rate a total of 51 competency statements, 29 of which were revisions of the original 28, and 22 of which had been added as a result of suggestions by the panel members. Parenthetical notations were made in the margins by each of the 22 new statements indicating the number of individuals suggesting the statement. Words and phrases which had been deleted from the Probe I statements had lines drawn through them while words and phrases which were added had been underscored. Comments of the first-round panelists concerning a particular statement were placed directly below it and were printed in italics. The format for Probe II was essentially the same as that for Probe I except for the fact that it was printed broadside. The full extent of all revision is shown in a copy of the instrument as it appears in Appendix M.

Panelists were instructed to indicate their opinions on each of the three program types without omitting any judgments. If they disagreed with a Probe I rating they were to revise it to their satisfaction and indicate their reasons for the new response in a space provided for such comments. Again, they were invited to suggest further revision but were asked not to suggest additional competency statements.

Forty-three individuals, or 90 percent of the 48 respondents, made comments and suggestions for further changes and/or reasons for revision of the ratings from Probe I. As a result, changes were made in eleven competency statements but no statements were added or deleted. The full extent of the changes made and reasons given for revision of ratings is exhibited in a copy of Probe III as it appears in Appendix O.

Probe III

The third-round opinionnaire was sent to the same 74 individuals who received the first and second probes. Forty-eight opinionnaires, or 65 percent, were returned from the total 74 that were mailed to the panel on the third iteration. Of that number, eight, or 80 percent, were returned by presidents; six, or 70 percent, were returned by deans; six, or 66 percent, were returned by humanities; nine, or 60 percent were returned by social sciences; seven, or 70 percent, were returned by vocational-technical; and seven, or 70 percent, were returned by continuing. Table I, page 101, displays the returns for all groups.

The third iteration revealed the mean ratings from the second-round instrument on all 51 competency statements. Respondents to Probe III were asked to review the ratings from round two, to note any revisions,

and to read the comments made and reasons given by Probe II panelists for their revised ratings. Again, the comments and reasons for revisions concerning a particular statement were placed directly beneath it and were italicized.

Words and phrases which had been deleted from the second-round statements had lines drawn through them while words and phrases which had been added were underscored. Additionally, circled numbers appeared above or below the mean Probe II results to indicate the percentage of experts who rated the statement higher or lower than the mean. Where no circled numbers appeared, 100 percent agreement was indicated. The format for Probe III was essentially the same as that for Probes I and II. A copy of the third-round instrument appears in Appendix O.

Panelists were instructed to indicate their opinions on each of three program types without omitting any judgment. If they disagreed with a Probe II rating, they were to revise it to their satisfaction and defend their position, if they wished, with a statement to that effect on the reverse side of the page.

Ten individuals, or 21 percent of the 48 respondents, made comments or gave reasons for revision of ratings from Probe II. Since no changes were suggested as to content or number, none were made in the final form of 51 competency statements. The comments made, reasons given, and the statements to which they referred are listed in entirety in Appendix P. Appendix Q shows the final list of statements.

Criteria for determination of consensus were applied to the responses for all 51 of the Probe III competency statements. No group

attained less than that reached by vocational-technical in rating transfer and continuing. The greatest degree of agreement was achieved by five groups: presidents, deans, social sciences, science-mathematics, and continuing in their ratings on all three program types. Table II reveals the levels of consensus reached according to group and program type at the conclusion of the third iteration. Cursory examination of the responses following the first and second iterations indicated a trend toward a higher level of convergence of opinion with each successive round.

III. RANKING THE COMPETENCIES

Question 2 concerning the purpose of this study sought to determine hierarchal values for the final listing of competencies that ought to be essential for teaching at the community college level in the State of Tennessee. Based on the mean ratings of each of the 51 competency statements, all of the statements were ranked by mean score according to program type and group. Table IV, Appendix R, displays the Probe III competency statement rankings based on mean scores. Where ties occur, items are listed in the same numerical order as that shown in Appendix Q.

Statewide rankings of each program type by all groups revealed that no competency statement was considered "unimportant." Forty-three competency statements under the transfer category were ranked "very important," seven were rated "important," and only one was rated "slightly important." Competency statements concerning vocational-technical programs were scored as follows: "very important," 45 items; "important," six items; "slightly important," no items. Forty-four statements for

TABLE II

INTRAGROUP AGREEMENT AS DETERMINED BY THE NUMBER OF PROBE III COMPETENCY STATEMENT ITEMS AT EACH LEVEL OF CONSENSUS BY GROUP AND PROGRAM TYPE

Level of Consensus	Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
	T	V	C	T	V	C	T	V	C	T	V	C	T	V	C	T	V	C	T	V	C
High	51	51	51	51	51	51	44	46	44	51	51	51	51	51	51	42	43	42	51	51	51
Medium	0	0	0	0	0	0	6	4	6	0	0	0	0	0	0	9	8	9	0	0	0
Low	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51

T = Transfer program.

V = Vocational-Technical program.

C = Continuing education program.

continuing education programs were found to be "very important," seven were considered "important," and none were rated "slightly important." Percentages representing these ratings are found in Table III which also reveals comparisons of percentages indicating the relative importance of Probe II competency statement rankings by group.

Those statements concerning transfer, as ranked by all groups, fell into 24 groupings with the greatest number of ties being seven in the first and fourteen positions of rank. Vocational-technical statements were also distributed into 24 groupings with the highest number of ties being eight in the first ranking position. Statements in the continuing category were arranged into 28 groupings with the greatest number of ties occurring in the first and sixth ranked positions with five items in each. These data are shown in Table IV, Appendix R.

For the sake of data tabulation, statewide rankings of competency statements for groups were separated into the three program type categories (transfer, vocational-technical, and continuing). Table V, Appendix R, reveals the rankings of competency statements for transfer. None of the statements were rated "unimportant" by any of the groups. In the presidents group, 43 statements were rated "very important," eight were rated "important," and none were rated "slightly important." The deans rated 45 of the statements "very important" and six as "important" with none rated as "slightly important." The humanities group rated 41 statements as "very important," nine as "important," and one as "slightly important."

TABLE III

PERCENTAGES INDICATING RELATIVE IMPORTANCE OF PROBE III COMPETENCY STATEMENTS FROM STATEWIDE RANKINGS

Group	Transfer			Vocational-Technical			Continuing		
	V	I	S	V	I	S	V	I	S
Presidents	84	16	0	86	14	0	86	14	0
Deans	88	12	0	90	10	0	75	25	0
Humanities	80	18	2	80	20	0	75	25	0
Social Sciences	82	16	2	88	10	2	78	20	2
Science-Mathematics	88	10	2	88	10	2	90	10	0
Vocational-Technical	76	24	0	82	18	0	78	22	0
Continuing	90	8	2	94	6	0	88	12	0
All Groups	84	14	2	88	12	0	86	14	0

V = Very important.

I = Important.

S = Slightly important.

The social sciences group scored 41 of the transfer statements as "very important," eight as "important," and one of the items "slightly important." Science-mathematics rated 45 of the items "very important," five of the items "important," and one of the items "slightly important." Those persons in the vocational-technical group found only 39 of the statements "very important," 12 of them "important," and none of them "slightly important." As rated by the continuing education group, 46 statements were "very important," four were "important," and only one was "slightly important." Percentages representing these ratings are found in Table III.

Those statements concerning transfer, as ranked by presidents, fell into ten groupings with the greatest number of ties being 30 in the first position of rank. The deans group rankings fell into nine groupings with the highest number of ties also being 30 in the first rank. The humanities group arranged the statements into nine groupings with the greatest number of ties being 16 at the first rank. Social science statements were arranged into 11 groupings with the high number of ties being 15 appearing in the first position of rank. The science-mathematics group had 23 tied statements in the first rank of nine groupings. As rated by the persons of vocational-technical, 23 statements were also tied in the first rank of but eight groupings. The continuing education group assigned statements to eight groupings with the high number of ties being 34 in the first position of rank.

Table VI, Appendix R, reveals the rankings of competency statements for vocational-technical. Again, none of the statements

were considered "unimportant" by any of the groups. The presidents rated 44 of the statements "very important" and seven as "important" with none rated "slightly important." The deans group rated 46 statements as "very important," five as "important," and none as "slightly important." The humanities group scored 41 of the statements as "very important," ten as "important," and none as "slightly important." Those persons in the social sciences group found 45 of the statements "very important," five of them "important," and one of them "slightly important." As rated by the science-mathematics group, 45 statements were "very important," six were "important," and none were "slightly important." Vocational-technical rated 42 of the items "very important," nine of the items "important," and none of the items "slightly important." In the continuing education group, 48 statements were rated "very important," three were rated "important," and none were rated "slightly important." Percentages representing these ratings are found in Table III, page 108.

Those statements concerning the vocational-technical program, as ranked by presidents, fell into nine groupings with the greatest number of ties being 28 in the first position of rank. As rated by the deans, 26 tied statements were placed in the first rank of seven groupings. The humanities group assigned statements to eight groupings with the high number of ties being 15 in the first position of rank. The social sciences group rankings fell into 12 groupings with the highest number of ties being 16 in the first rank. The science-mathematics group arranged the statements into nine groupings with the greatest number of ties being

28 appearing in the first position of rank. The continuing group placed a record high for this study of 39 tied statements in the first rank of seven groupings.

Table VII, Appendix R, displays the rankings of competency statements for continuing education programs. Once more, none of the statements were found "unimportant" by any of the groups. As scored by the presidents group, 44 statements were "very important," seven were "important," and none were "slightly important." Those persons in the deans group found only 38 of the statements "very important," 13 of them "important," and none of them "slightly important." Humanities rated 40 of the items "very important," 11 of the items "important," none of the items "slightly important." In the social sciences group 40 statements were rated "very important," ten were rated "important," and one was rated "slightly important." The science-mathematics group scored 46 of the transfer statements as "very important," five as "important," and none as "slightly important." The vocational-technical group rated 40 of the statements "very important" and 11 as "important," with none rated as "slightly important." The continuing group found 45 statements to be "very important," six as "important," and none as "slightly important." Percentages representing these ratings are found in Table III, page 108.

Those statements concerning continuing education programs, as ranked by presidents, fell into ten groupings with the greatest number of ties being 23 in the first position of rank. The deans group assigned statements to only seven groupings with the high number of ties being

19 at the first position of rank. As rated by the individuals in the humanities, 13 tied statements were placed in the first rank of nine groupings. The social sciences group rankings fell into 11 groupings with the highest number of ties being only 12 in the first place. Science-mathematics statements were arranged into eight groupings with the high number of ties being 19 and appearing at the first rank position. The vocational-technical group arranged the statements into only seven groupings with the greatest number of ties being 22 in the first rank. The continuing education group placed 26 tied statements in the first rank of eight groupings. Tables VIII-X, Appendix R, show actual responses for each program type and group upon which rankings were made.

IV. ANALYZING THE DATA

T test analysis was used to signify whether or not true differences existed between the mean scores of intergroup ratings for each competency statement. There were 21 possible combinations of groups for comparison. With 51 items per program and three programs rated per group, there was a total of 3,213 t test comparisons made. Out of the entire set of comparisons, only 12 were found significant at the .01 level of probability.

Comparisons of mean ratings for competency statement six, "demonstrates the use of skillful techniques that lead students to analyze, think critically, ask relevant questions, and experience discovery learning," were significant when the continuing education

program was rated by the following combinations of groups: (1) presidents/deans, (2) deans/humanities, (3) deans/vocational-technical, and (4) deans/continuing.

Comparisons of means for statement 24, "uses appropriate evaluative procedures based on preestablished and measurable goals and objectives, as an integral part of the total learning context," was significant when the deans/science-mathematics groups rated the continuing program. Comparisons of means for statement 38, "maintains practical relationships with the community," was significant when the presidents/continuing groups rated the transfer program.

Comparisons of means for statements 46, "possesses warmth," and 47, "teaches intellectual grasp of subject . . . recognition of one's limitations," were both significant when the president/humanities groups rated all three program types (transfer, vocational-technical, and continuing).

H_o: "There is no significant difference between the mean program type scores for each comptency statement among groups of persons normally charged with the selection and evaluation of community college teachers in the state of Tennessee," was accepted in 3,201 cases. The null hypothesis was rejected in 12 cases and it was assumed that the differences did not happen as a matter of chance. Appendix S lists 21 possible intergroup combinations for t test analysis.

Because variances in the means scores for one group were unequal to variances for another group, t could not be computed. Instead, an approximation to t was computed and treated as t but with degrees of

freedom. In order to accomplish this approximation to t, an F score was computed. When the probability for F was greater than .05, pooled variance estimates were used for the approximation of t. When the probability for F was less than or equal to .05, separate variance estimates were used for the approximation of t.

CHAPTER V

SUMMARY, CONCLUSIONS, AND OBSERVATIONS

I. INTRODUCTION

This chapter summarizes the purposes of the study, the procedures used, and the results obtained. Conclusions are drawn from the results outlined in the previous chapter. Observations are made from which implications and recommendations are derived.

II. SUMMARY

Purpose

The central purpose of this study was to discover which instructional competencies ought to be essential for teachers at the community college level in Tennessee. Secondly, the study sought to compile ranked listings of competency statements that would be applicable to all subject areas and instructional programs at the same level.

Procedures

The study was conducted by means of an analytical survey that utilized a series of mailed opinionnaires to obtain subjective judgment. Through a modified Delphi approach a panel of seven groups, totaling 74 individuals, who regularly evaluate community college teachers for employment, were asked to react to an initial list of 28 competency statements considered essential for any teacher at the community college

level. The panelists were sent three successive rounds of an opinionnaire designed to secure input and, as modified, to be further revised through group feedback.

For the purpose of scoring the instrument, the numbers one through four were assigned to the opinionnaire choices. Respondents indicated a range of importance for each comptency statement by marking it for each of three instructional program types found in most community colleges. Responses were reported in means; the lower the mean, the higher the rating. All data were coded and punched into 80-column data processing cards for statistical analysis at the University of Tennessee Computer Center.

Through repeated questioning and feedback, a list of competency statements was formulated. Criteria for consensus were applied to the third iteration. The statements were ranked in hierarchal order according to statewide ratings by program type and group.

An hypothesis was tested as to the indication of true differences between mean scores of 21 intergroup combinations. Because variances between groups were different, an approximation of the t test was used by first determining an F value with degrees of freedom. Pooled variance estimates were used when the probability level for F was greater than .05; separate variance estimates were used when the probability was less than or equal to .05.

Findings

1. The survey yielded 51 statements describing those competencies considered essential for effective teaching at the community college level in the state of Tennessee.

2. A high degree of consensus was reached at the conclusion of the survey.

3. T test analysis of 3,213 comparisons of intergroup agreement on ratings for each comptency statement yielded only 12 that were considered significant at the .01 level of probability.

Conclusions

Based on the findings of this study, the following conclusions can be drawn.

1. The Delphi technique as the tool of inquiry was used successfully to gain convergent expert opinion. Individuals were influenced to generate additional competency statements and to amend the original list. They became more congruent following informational feedback.

2. Those persons normally charged with the selection and evaluation of instructional personnel within the community colleges of Tennessee were in general agreement as to the competencies desired in an effective teacher.

3. The lack of significant differences among groups indicated that the observed differences were a matter of chance. Despite diverse subject area backgrounds and administrative responsibilities, respondents seemed to view similarly the competencies essential for effective teaching.

Observations

1. Inherent in the Delphi method is the resolution of consensus. Its determination in the study was based upon essentially identical criteria found in three separate doctoral studies. The arbitrary, albeit consistent, application of those precedents as criteria for determination of consensus in the study may constitute a limitation to the analysis of data.

2. The greatest disparity among respondents was among those representing the humanities. They seemed to attach less importance to the competency statements. Vocational-technical respondents were also less able to agree with other. Presidents, deans, and heads of continuing education programs had the most consistent degree of consensus.

3. The study failed to show intergroup conflict among administrators regarding the relative importance of the competency statements. The aim of a Delphi study, of course, is to reduce conflict, if there is such, and bring about agreement. There may be more incongruity on the subject than the study reveals where overall administrator/teacher and administrator/student agreement is concerned.

4. Overall ratings on the item, "maintains practical relationships with the community" were low. Apparently the panelists do not regard such activity as a very important part of teaching even though they work in community colleges.

5. Despite an open-door admissions policy for Tennessee's community colleges, the statement: ". . . utilizes knowledge of physical, mental, social, and emotional growth and development in planning learning

experiences to meet the special needs of students of various ages," consistently was rated extremely low.

6. The original list of competency statements had been distilled from over 500,000 submitted in the Pennsylvania study. The list may have been so generic and comprehensive as to bias the respondents toward a more positive or important view for the entire listing of 51 statements.

7. Because all of the data generated was fed back to the panelists as quickly as possible, after each iteration, interest was sustained throughout the study. The longest delay for feedback came between the first and second rounds, and the resulting returns were indicative of it.

Recommendations and Implications

Having derived a listing of competency statements against which administrators might match prospective personnel or evaluate existing teachers, the list ought to be implemented in some way. Perhaps a pilot program in one or more community colleges would be a good beginning. Prospective teachers could be given the list as a way to know what would be expected of them. If a prospective teacher should find a majority of the statements distasteful and thus request that his/her application be returned, then the screening process would have been beneficial. Should the prospective teacher agree to the list, it could be used as one means of future evaluation for continuation of employment and/or promotion.

The list should be refined. In the writer's opinion, several of the added statements were not statements of competency. They were statements 40, 46, 48, and 49. Others were vague and unclear. Those

statements were numbers 41, 42, 43, 44, 47, and 50. All nine of these statements may be found in Appendix Q and are not listed here. Through careful editing, the writer clarified most of the additional items; however, in an effort to feed back precisely what the respondents had suggested, several items were left in which perhaps should have been eliminated. Generally, those items were ranked at the lower end of the list.

The low ranking of items having to do with community relations implies that the administrators of Tennessee's community colleges may not view their institutions with as much local or regional significance as the title "community college" suggests. A careful examination of institutional goals in regard to community relations would seem appropos.

Since this study was the first of its type known to be completed in the State of Tennessee, it should be replicated. Parallel studies should be done to determine the extent of congruence between not only administrators and instructors, but also administrators and students.

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APPENDICES

APPENDIX A

FIRST LETTER TO MEMBERS OF THE PRESIDENT'S COUNCIL, COMMUNITY COLLEGE SYSTEM OF TENNESSEE

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

As a doctoral student of Dr. Earl Ramer at the University of Tennessee, I am planning a study of the competencies essential to quality community college teaching as perceived by the presidents, academic deans, and division heads of the existing ten community colleges in our State. You may remember that I met with the President's Council on August 17, 1973, at Shelby State to outline my proposal and to enlist your support. At that time the Council members agreed to assist me in my research.

After some delay because of personal and professional hindrances, I am ready to activate my study. Toward that end, I have talked with Dr. Dunbar and he has agreed to include my proposal in the agenda of a Council meeting within the near future. Additionally, he has encouraged me to write you and resubmit the prospectus summarizing my proposal. A copy of the original prospectus is thus enclosed. Please note that I have indicated in red the inclusion of some of the suggestions made at the time I met with you.

Inasmuch as Presidents Branch, Campbell, and Wagner were not present at that Memphis meeting, this letter will serve as a request for their cooperation in the completion of the study. I sincerely appreciate the support and encouragement the Council initially gave me and I shall be grateful for its continued assistance.

Very truly yours,

Donald G. Rhodes

Donald G. Rhodes

copy: Earl Ramer

APPENDIX B

LETTER FROM GUYLER A. DUNBAR

ROANE STATE COMMUNITY COLLEGE

OFFICE OF THE PRESIDENT

HARRIMAN, TENNESSEE 37748

Telephone (615) 354-3000

July 7, 1975

Mr. Donald G. Rhodes, Principal
Farragut Middle School
Route 2, Kingston Pike
Concord, TN 37720

Dear Mr. Rhodes:

In reference to earlier communications regarding your dissertation proposal, I have talked with Dr. Wray Buchanan of the State Board of Regents. Dr. Buchanan is agreeable to proceeding from the standpoint of the Board of Regents.

There will be a meeting of the Presidents' Council on Wednesday, July 16, or Thursday, July 17 in Nashville. At that time I will officially bring you request before the council again. I anticipate no difficulty and look forward to being of assistance to you in this matter.

Please don't hesitate to call if you have any questions.

Sincerely,

Guyler A. Dunbar
President

ea

P.S. You will be receiving a letter from Dr. Buchanan in the near future along the lines outlined above.

APPENDIX C

LETTER TO W. WRAY BUCHANAN

Farragut Middle School

11130 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9758

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

July 14, 1971

Dr. W. Wray Buchanan
Vice Chancellor of Academic Affairs
State University and Community College
System of Tennessee
1161 Murphreesboro Road
Nashville, Tennessee 37217

Dear Dr. Buchanan:

Dr. Cuyler Dunbar has informed me of his recent conversation with you concerning my dissertation proposal. Thank you for your approval on behalf of the Board of Regents!

Enclosed is a copy of my prospectus for your perusal. Should you have any questions, please let me hear from you.

Sincerely,

Donald G. Rhodes

Donald G. Rhodes

copies: Cuyler Dunbar
Earl Ramer

APPENDIX D

LETTER FROM W. WRAY BUCHANAN

The State University
and Community College System of Tennessee
1161 Murfreesboro Road Nashville, Tennessee 37217 (615) 741-4821

July 15, 1975

Mr. Donald G. Rhodes
Farragut Middle School
Route 2, Kingston Pike
Concord, Tennessee 37720

Dear Mr. Rhodes:

Please excuse my delay in answering your letter of June 26, 1975. I have discussed your letter with Dr. Cuyler Dunbar and he brought me up-to-date as to the status of your proposed study.

As Dr. Dunbar has pointed out to you, the State Board of Regents is always willing to cooperate with graduate students in their dissertation efforts provided our institutions are willing to take the time to provide the necessary services required. We are presently working with four graduate students on follow-up studies and we are anxiously awaiting the results of these studies.

I suggest you contact Dr. Dunbar again and see if he feels you should resubmit your proposal to the Presidents' Council.

We would appreciate your keeping us informed as to the progress of your study and we would like to have a copy of your final report if possible. Please let us know if we can be of further help.

Sincerely,

W. Wray Buchanan

W. Wray Buchanan
Vice Chancellor for
Academic Affairs

WWB:rs

cc: Dr. Roy S. Nicks, Chancellor
Dr. Cuyler Dunbar, President, Roane State Community College

APPENDIX E

SECOND LETTER TO MEMBERS OF THE PRESIDENT'S COUNCIL, COMMUNITY COLLEGE SYSTEM OF TENNESSEE

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

Dr. Cuyler Dunbar has informed me of your positive action, through the President's Council, to assist me in my doctoral study with Dr. Earl Ramer at the University of Tennessee. Not only am I appreciative of your personal commitment to my project, but also I am indebted to you for consenting to involve your staff. Thank you!

Shortly, I want to be in touch with those participating staff members. In that regard, I now need the names, full titles, and addresses of your academic deans and division heads (including the director of continuing education). Could you have your secretary send that information to me as quickly as possible? For your convenience, I have enclosed a self-addressed, stamped, return envelope.

Sincerely yours,

Donald G. Rhodes

Donald G. Rhodes

DGR:cw

Enclosures

P.S. I would be grateful if you would mention my study to those individuals indicated above, giving it as much positive support as you feel you can.

cc: Earl Ramer

APPENDIX G

LETTER TO JOHN C. PITTINGER

APPENDIX F

LIST OF DELPHI PANEL MEMBERS

DELPHI PANEL MEMBERS

Chattanooga State Technical Community College

Dr. Charles W. Branch, President

Mr. Richard Marsh, Director
of Continuing Education

Mr. Richard M. Marsh, Acting Head
of Division of Engineering Technologies

Dr. Paul A. Ritch, Head
Division of Business and Commerce

Dr. Herbert J. Robinson, Dean of Instruction

Mr. Donald R. Stone, Head
Division of Arts and Sciences

Cleveland State Community College

Dr. D. F. Adkisson, President

Mrs. Mary Baker, Chairperson
Humanities Division

Dr. F. Dean Banta, Chairperson
Education Division

Mr. Al Fine, Director
Continuing Education and Evening Division

Dr. L. Quentin Lane, Dean of Instruction

Mr. Roy G. Lillard, Chairperson
Social Sciences and Business Division

Dr. Irene Millsaps, Chairperson
Mathematics and Science Division

Mr. Matt Reiser, Chairperson
Career Education Division

Columbia State Community College

Dr. U. M. Clemmer, Chairman
Division of Education

Mr. Tom Friedlob, Chairman
Division of Business and Commerce

Mrs. Jean Jones, Chairman
Humanities Division

Mr. William McEwen, Director
Continuing Education

Dr. Lewis Moore, Chairman
Division of Social Science

Dr. B. I. Naddy, Chairman
Division of Math and Science

Dr. Harold S. Pryor, President

Dr. Paul Sands, Dean of Instruction

Dr. Eric Skouby, Chairman
Career Education Division

Dyersburg State Community College

Dr. Blair Bentley, Chairman
Division of Social Sciences

Dr. E. B. Eller, President

Mr. Ward Harder, Acting Chairman
Division of Technology

Mr. Roy Jones, Dean of Instruction

Mrs. Mary McCauley, Acting Chairman
Division of Humanities

Mrs. Rosella McClain, Director
Continuing Education and Evening Division

Dr. Billy Williams, Chairman
Division of Science and Mathematics

Jackson State Community College

Dr. Don Chevalia, Chairman
Division of Continuing Education

Mr. Eugene Conyers, Chairman
Division of Continuing Education

Mr. C. D. Culver, Chairman
Division of Humanities

Dr. Walter Nelms, Dean of the College

Dr. Ray Palmer, Chairman
Division of Math and Science

Mr. Joe Pentecost, Chairman
Division of Technology

Dr. F. E. Wright, President

Motlow State Community College

Dr. Frank Glass, Dean of Instruction

Dr. Louis Hunter, Chairman
Division of Science and Mathematics

Dr. Robert Kopecky, Chairman
Division of Career Education

Dr. William Majors, Chairman
Division of Social Science and Education

Mr. Orvil Moffitt, Chairman
Division of Humanities

Miss Mary Frances Rudd, Director
Continuing Education

Dr. Harry D. Wagner, President

Roane State Community College

Dr. Cuyler A. Dunbar, Jr., President

Dr. Nancy A. Fisher, Chairwoman
Humanities Division

Dr. Paul Goldberg
Director of Community Services

Mr. Gary Heidinger, Chairman
Division of Social Science Department

Mr. Carroll Marsalis, Chairman
Career Education Division

Dr. Anne P. Minter, Chairwoman
Division of Mathematics and Science

Dr. James C. Perry, Chairman
Division of Education

Dr. Harold L. Underwood, Dean of Instruction

Shelby State Community College

Dr. Donald M. Mikula, Dean of Instruction

Dr. Jess H. Parrish, President

Dr. Gilma Preus, Chairman
Division of Education and Public Service

Dr. Peter Rosato, Chairman
Division of Allied Health

Mr. Troy Simpson, Director
Continuing Education and Community Services

Mr. Herbert Temple, Chairman
Division of Mathematics and Sciences

Volunteer State Community College

Dr. John R. Bell, Chairman
Division of Social Science and Education

Dr. Nolen Eugene Bradley, Dean of Instruction

Dr. Donald R. Goss, Chairman
Division of Humanities

Mr. Charles E. Lee, Director
Division of Adult, Continuing Education, and
Community Services

Mr. James C. Moore, Director
Division of Career Education

Dr. Hal R. Ramer, President

Mr. Wayne Sullivan, Chairman
Division of Mathematics and Science

Walters State Community College

Dr. William B. Biddle, Chairman
Division of Humanities

Dr. Jack E. Campbell, President

Dr. James M. Coburn, Associate Dean
Career and Continuing Education

Dr. James W. Ford, Jr., Chairman
Division of Mathematics and Natural Science

Mrs. Evelyn J. Honaker, Chairwoman
Division of Business-Commerce

Ms. Emogene W. Jasper, Chairwoman
Division of Health Programs

Dr. H. Wayne Quinton, Chairman
Division of Behavioral Sciences

Dr. Darrell D. Simmons, Dean of Instruction

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

August 4, 1975

Mr. John C. Pittinger, Secretary
Pennsylvania State Department of Education
Education Building
Walnut and Commonwealth Streets
Post Office Box 911
Harrisburg, Pennsylvania 17126

Dear Sir:

Reference is made to a June, 1973, report of the Pennsylvania Competency-Based Teacher Education Project entitled: "Generic Teaching Competencies: An Interim Inventory for Subsequent Development by Pennsylvania Colleges and Universities." This report presented 66 statements of generic teaching competencies, the use of which would enhance my doctoral study in education at the University of Tennessee. Thus I seek permission from the Pennsylvania State Department of Education to include those 66 statements within my study. Please be assured that the final report would acknowledge such permission in whatever manner prescribed by the Department. May I have an answer at the earliest possible convenience? Time is of the essence.

Sincerely yours,

Donald G. Rhodes

Donald G. Rhodes

APPENDIX H

LETTER FROM SAM B. CRAIG, JR.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
BOX 911, HARRISBURG, PA. 17126

August 26, 1975

Mr. Donald G. Rhodes
Farraqut Middle School
11138 Kingston Pike
Concord, Tennessee 37922

Dear Mr. Rhodes:

Secretary Pittenger asked me to respond to your letter to him of August 4, 1975, inquiring about uses of the Generic 66 for your doctoral studies. I am sorry this letter is late but I just returned from vacation.

Since these statements were produced as part of a federally funded project they are part of the public domain and you are welcome to use them as you see fit.

Enclosed is a copy of the PaCBTE Handbook which contains not only the Generic 66 but two other competency list (see pages 9 through 11 and Chapter V). This handbook is in the process of being reprinted. There are some significant changes on pages 43 through 48 and 93 through 96.

Best wishes to you in your doctoral studies. Please let me know if I can be of further assistance.

Sincerely yours,

Sam B. Craig, Jr., Coordinator
PaCBTE Program

SC:pv
Enc.

APPENDIX I

COVER LETTER TO PRESIDENTS,

PROBE I

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

Several weeks have elapsed since your response to my request for the names, titles, and addresses of your academic deans and division heads. Thank you for your expeditious handling of that clerical task!

Enclosed is the first opinionnaire that you will need to complete as the first phase of my research on the competencies important for effective teaching in the community college. As you recall, I will employ the "Delphi Technique" to gather data for my study. This method of research utilizes the opinion of a panel of experts to arrive at an agreement concerning a particular subject. Because of your important place within the Community College System of Tennessee, you are a vital part of the panel.

Allow me to outline the extent of your involvement. The entire panel is never brought together in face-to-face contact. Agreement among the experts is reached through a series of mailed opinionnaires or probes. Each probe will seek your opinion regarding a list of skills thought necessary for effective teaching at the community college level. After the first probe is complete, you will be told what other experts thought about the list of skills so that you may use their ideas in deciding whether or not you would like to revise your original opinion. By the end of three probes, agreement should be reached. Please note that you will not sign the probes. Your opinions, are therefore, confidential.

Enclosed is the first probe. You have been provided two copies. Return only one, keeping the other handy for reference in succeeding probes. Will you please complete it according to the instructions on the first page and return it to the address below within five days after it reaches you? If so, I will be able to send the second probe soon thereafter. I have enclosed a self-addressed, stamped, return envelope for your convenience. Your time and effort will be greatly appreciated.

Sincerely,

Donald G. Rhodes

Donald G. Rhodes
602 Rockingham Drive
Knoxville, Tennessee 37919

DGR:lad

Enclosures

APPENDIX J

COVER LETTER TO ALL RESPONDENTS

EXCEPT PRESIDENTS, PROBE I

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

As a doctoral student of Dr. Earl Ramer at the University of Tennessee, I am engaged in a project to determine what competencies effective community college teachers ought to have. I will employ the "Delphi Technique" to gather data for my study. This method of research utilizes the opinion of a panel of experts to arrive at an agreement concerning a particular subject. Because of your position within the Community College System of Tennessee, you qualify as an expert in your field. Will you serve as a member of my panel of experts? Your President has recommended you.

Allow me to outline the extent of your involvement. The entire panel is never brought together in face-to-face contact. Agreement among the experts is reached through a series of mailed opinionnaires or probes. Each probe will seek your opinion regarding a list of skills thought necessary for effective teaching at the community college level. After the first probe is complete, you will be told what other experts thought about the list of skills so that you may use their ideas in deciding whether or not you would like to revise your original opinion. By the end of three probes, agreement should be reached. Please note that you will not sign the probes. Your opinions are, therefore, confidential.

Enclosed is the first probe. You have been provided two copies. Return only one, keeping the other handy for reference in succeeding probes. Will you please complete it according to the instructions on the first page and return it to the address below within five days after it reaches you? If so, I will be able to send the second probe thereafter. I have enclosed a self-addressed, stamped, return envelope for your convenience. Your time and effort will be greatly appreciated.

Sincerely,

Donald G. Rhodes

Donald G. Rhodes
602 Rockingham Drive
Knoxville, Tennessee 37919

DGR:lad

Enclosures

APPENDIX K

PROBE I

PROBE I

INSTRUCTIONS

The following statements, compiled from a review of literature, indicate several competencies that various authorities consider essential to effective teaching in the community college. After each statement, please indicate whether you think the competency is: very important, important, slightly important, or unimportant, by inserting a code number within the appropriate box (see example below). Indicate your opinion for each of the three types of community college programs even if you are not involved in all three. *Please do not omit any judgments.*

The present list is only a beginning. You may very well not agree with some of these. *Certainly,* you will propose others. Competency statements not included that you feel are *very important* for effective teaching should be added at the end of the probe. Whenever you consider it appropriate, please change the wording of any of the present competency statements. Your suggestions for changes and additions to this list will be included in the second probe along with an indication of agreement as to the importance of each statement. Only as the panel of experts modify and extend these beginning statements may a meaningful list be developed for Tennessee.

This probe is color coded for ease in analysis of data. PLEASE DO NOT SIGN YOUR NAME!

EXAMPLE

VERY IMPORTANT 1	SLIGHTLY IMPORTANT 3
IMPORTANT. 2	UNIMPORTANT. 4

COMPETENCY STATEMENTS	PROGRAM TYPES		
The effective community college teacher . . .	Transfer	Vo-Tech	Continuing
demonstrates an understanding of the organization of administrative, service, and instructional units in the community college system.	2	3	4

Please indicate below (✓) the grand division of the State of Tennessee in which your community college is located.

( ) West Tennessee ( ) Middle Tennessee ( ) East Tennessee

PROBE I
(Response Sheets)

VERY IMPORTANT 1	SLIGHTLY IMPORTANT 3
IMPORTANT. 2	UNIMPORTANT. 4

COMPETENCY STATEMENTS	PROGRAM TYPES		
The effective community college teacher . . .	Transfer	Vo-Tech	Continuing
exhibits a personal philosophy of education which is both theoretical and practical.			
exhibits personal characteristics which reflect enthusiasm toward his/her profession.			
selects, identifies, and implements classroom procedures which are consistent with instructional objectives.			
provides alternative ways for students to satisfy objectives.			
applies the latest techniques, methods, and materials in his/her respective teaching field.			
demonstrates the use of skillful questions that lead students to analyze, synthesize, and think critically.			
uses instructional strategies that lead students to make functional use of the basic study skills.			
explains to students the interrelationships among subject matter areas.			

VERY IMPORTANT 1	SLIGHTLY IMPORTANT 3
IMPORTANT. 2	UNIMPORTANT. 4

COMPETENCY STATEMENTS	PROGRAM TYPES		
The effective community college teacher . . .	Transfer	Vo-Tech	Continuing
communicates subject matter, including the objectives and vocabulary in concepts and words appropriate to the level of the student's understanding.			
employs a variety of techniques, materials, and methods which will actively involve each student in the learning situation.			
demonstrates the ability to apply a variety of instructional patterns and grouping skills.			
applies motivational techniques that are appropriate for the level of his/her students.			
uses feedback to modify classroom practices.			
demonstrates the ability to direct and participate in group processes in the classroom.			
establishes guidelines for developing and maintaining control in the classroom, including the resolution of individual student problems with a minimum of disruption.			

VERY IMPORTANT 1	SLIGHTLY IMPORTANT 3
IMPORTANT. 2	UNIMPORTANT. 4

COMPETENCY STATEMENTS	PROGRAM TYPES		
The effective community college teacher . . .	Transfer	Vo-Tech	Continuing
adapts to varying school situations and conditions.			
maintains an educational environment conducive to developing positive attitudes toward learning.			
demonstrates a firm commitment to the ideal that teaching implies compassion and humility with a respect for the dignity of the student regardless of the value system of the teacher.			
evidences fairness, tact, compassion, and good judgment in dealing with students.			
utilizes knowledge of physical, mental, social, and emotional growth and development in planning learning experiences to meet the special needs of students of various ages.			
establishes rapport with individual students and makes provision for special needs of students according to their ability and background.			
identifies the problem student and makes appropriate referrals.			
provides learning experiences which enable students to transfer principles and generalizations developed in a school to situations outside of the school.			

VERY IMPORTANT 1	SLIGHTLY IMPORTANT 3
IMPORTANT. 2	UNIMPORTANT. 4

COMPETENCY STATEMENTS	PROGRAM TYPES		
The effective community college teacher . . .	Transfer	Vo-Tech	Continuing
uses appropriate evaluative procedures as an integral part of the total learning context.			
aids students in the selection of, and evaluation of their progress toward, personal goals and objectives.			
uses teaching techniques and strategies that aid students in developing a positive self-image.			
exhibits a professional attitude toward assigned and non-assigned responsibilities.			
demonstrates an awareness of the relationship of his/her personal ethics to professional ethics and the values of the community.			
PLEASE ADD ADDITIONAL COMPETENCIES AND YOUR RATING OF THEIR IMPORTANCE FOR EACH OF THE THREE PROGRAM TYPES.			

VERY IMPORTANT 1	SLIGHTLY IMPORTANT 3
IMPORTANT. 2	UNIMPORTANT. 4

COMPETENCY STATEMENTS	PROGRAM TYPES		
The effective community college teacher . . .	Transfer	Vo-Tech	Continuing

APPENDIX L

COVER LETTER, PROBE II

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

Please find enclosed Probe II of my study concerning the essential competencies for effective community college teaching. Eighty percent of the seventy-four panel members responded to Probe I. Your participation in this, the second round, is most important to the study.

In this probe I have indicated the ratings and comments of the panel of experts to the first round. Will you please consider their ideas and indicate your reaction? Remember, in the Delphi Technique, an expert who does not agree with the majority of panel members indicates his/her reason for remaining outside the consensus. If you will do this, other panel members can have access to your reasons and take them into consideration before marking Probe III. Be assured that your responses are completely anonymous.

Your cooperation as a member of my panel of experts is sincerely appreciated. I am looking forward to the receipt of your second response. Please return it to me at the address below within five days after it reaches you. Time is of the essence and if you will respond quickly, I should be able to send the third and final probe soon thereafter. Again, I have enclosed a self-addressed, stamped, return envelope for your convenience. I am most grateful for your time and effort on my behalf. Thank you!

Sincerely yours,

Donald G. Rhodes

Donald G. Rhodes
602 Rockingham Drive
Knoxville, TN 37919

DGR:lad

Enclosures

APPENDIX M

PROBE II

PROBE II

INSTRUCTIONS

The numerals to the right of each of the following revised competency statements indicate the mean rating assigned each program type by the majority of the Probe I panel of experts. If you disagree with a Probe I rating, please revise the rating to your satisfaction in the spaces provided and also indicate the reason for your new response. In that way, other panel members can consider your reasoning before marking Probe III.

Words and phrases deleted from the Probe I competency statements have lines drawn throught them. Words and phrases added to the statements have been underscored. Comments concerning a competency statement are printed in italics directly below it. Feel free to revise these statements further.

Several additional competency statements were suggested. The number of persons suggesting a competency is shown in parenthesis in the left margin beside each new statement. Please rate all of the new competency statements and state your reasons if you disagree with the Probe I ratings. Do not omit any judgments. No further suggestions should be made for additional competencies. However, feel free to revise the new statements.

The probe is color coded for ease in analysis of data. PLEASE DO NOT SIGN YOUR NAME!

EXAMPLE

Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4

Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
demonstrates an understanding of ~~the organization of administrative, service, and instructional units in~~ the community college system.	1	2	3	2	1	4	Such an understanding is essential to "Vo-Tech"!
COMMENTS: . . . *what do you mean by administrative service?* . . . *instructional units?*							

Please indicate below (✓) the grand division of the State of Tennessee in which your community college is located.

( ) West Tennessee ( ) Middle Tennessee ( ) East Tennessee

Very Important . . . 1	Important . . . 2	Slightly Important . . . 3	Unimportant . . . 4

Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
exhibits a personal philosophy of education which ~~is~~ respects both theoretical and practical aspects of education.	1	1	2				
COMMENTS: ? . . .							
exhibits personal characteristics which reflect enthusiasm toward his/her profession and subject area.	1	1	1				
COMMENTS: ? . . .							
identifies, selects, ~~identifies~~ organizes, and implements classroom procedures which are consistent with measurable instructional goals and objectives.	1	1	1				
COMMENTS:							

Very Important . . . 1	Important . . . 2		Slightly Important . . . 3			Unimportant . . . 4
Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
provides alternative ways for students to satisfy objectives.	2	2	1				
COMMENTS:							
~~applies~~ demonstrates knowledge of the latest techniques, processes, equipment, technology, methods, and materials through their application in his/her respective teaching field, assuming they have been previously effective.	2	1	2				
COMMENTS: *does latest make it better . . . ? . . . for Vo-Tech, regarding feasibility in skills or technique, precision development?*							
demonstrates the use of skillful questions that lead students to analyze, synthesize, ~~and~~ think critically, ask relevant questions and experience discovery learning.	1	1	2				
COMMENTS: *depending on case . . . especially in the context of problems of public policy . . . there are other effective strategies . . . only if they are consistent to or practical toward the fulfillment of teacher-student objectives. . .*							

Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4

Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
uses ~~instructional strategies~~ methods of instruction that ~~best~~ help students ~~to make maximal use of~~ acquire the basic study skills which can be used for both theoretical and practical courses.	1	1	2				
COMMENTS: *not all students functionally need to use "basic study skills" . . . I do not know what this means . . . not sure what you mean by "functional" use? . . .*							
explains to students the interrelationships among subject matter areas in terms of practical problems and challenges related to everyday living.	1	2	2				
COMMENTS: *depending on case . . .*							
communicates subject matter, including the objectives and vocabulary in concepts and words appropriate to the level of the student's understanding.	1	1	1				
COMMENTS:							

Very Important . . . 1	Important . . . 2		Slightly Important . . . 3			Unimportant . . . 4
Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
employs a variety of techniques, materials, and methods which are appropriate to the adult learner and will actively involve each student in the learning situation.	1	1	1				
COMMENTS: *teacher-pupil ratio must be reasonable . . .*							
brings to the classroom a full repertoire of instructional plans and demonstrates the ability to apply a variety of instructional patterns and grouping skills as need dictates.	2	2	2				
COMMENTS: *elementary school . . . appropriate to college level? not clear! . . .*							
applies motivational techniques that are appropriate for the level of his/her students.	1	1	1				
COMMENTS:							

Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4

Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
uses ~~feedback to modify classroom practices~~ a variety of evaluative criteria for students in order to restructure the instructional program for utmost effectiveness.	1	1	1				
COMMENTS:							
demonstrates the ability to direct and participate in group processes in the classroom.	1	2	2				
COMMENTS:							
~~establishes guidelines for development and maintaining control in the classroom~~ implements the kind of discipline necessary for learning to take place, including the resolution of individual student problems with a minimum of disruption.	2	2	2				
COMMENTS: *unimportant only in the sense that we have never had a problem in maintaining control. We have no discipline problems . . .*							

Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4

Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
adapts to varying ~~school~~ instructional/learning situations as well as varying school ~~and~~ conditions.	1	1	1				
COMMENTS: *too vague! . . .*							
~~maintains an educational environment conducive to developing~~ develops positive attitudes toward learning.	1	1	1				
COMMENTS:							
demonstrates a firm commitment to the ideal that teaching implies compassion and humility with a respect for the dignity of the student ~~regardless of the value system of the teacher.~~	1	1	1				
COMMENTS: *I don't believe learning can take place if you include "regardless of the value system of the teacher." Only if a teacher respects his own value system will he have the stability and sensitivity to have compassion and humility for others . . . .*							

Very Important . . . 1	Important . . . 2		Slightly Important . . . 3		Unimportant . . . 4		
Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
evidences fairness, tact, compassion, and good judgment in dealing with students.	1	1	1				
COMMENTS:							
exhibits a professional attitude toward assigned and non-assigned responsibilities.	1	1	1				
COMMENTS:							
establishes rapport with individual students ~~and makes provision for special needs of students according to their ability and background~~	1	1	1				
COMMENTS: *two separate ideas . . . two separate items . . . THE SECOND HALF OF THE ABOVE ITEM IS LISTED IMMEDIATELY BELOW.*							
~~establishes rapport with individual students and makes provision for special needs of students~~ provides individualized instruction according to ~~their~~ ability ~~and background~~ of students.	1	1	1				
COMMENTS: *See above*							

Very Important . . . 1	Important . . . 2			Slightly Important . . . 3			Unimportant . . . 4
Revised Competency Statements	Probe I Results			Probe II Response			
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	Reasons for Rating Revision
identifies the problem student and makes appropriate referrals.	2	2	2				
COMMENTS: *elementary school; average age in community college about 28 years . . .*							
provides learning experiences which enable students to transfer principles and generalizations developed in a school to situations outside of the school.	1	1	1				
COMMENTS: *redundant . . .*							
uses appropriate evaluative procedures, based on pre-established and measurable goals and objectives, as an integral part of the total learning context.	1	1	2				
COMMENTS: *no grades given in continuing . . .*							
aids students in the selection of, and evaluation of their progress toward, personal goals and objectives.	1	1	2				
COMMENTS: *elementary school . . . of theoretical importance; is this practical? . . . not always easy . . .*							

Very Important . . . 1	Important . . . 2			Slightly Important . . . 3			Unimportant . . . 4
Revised Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
uses teaching techniques and strategies that aid students in developing a positive self-image.	1	1	1				
COMMENTS: *college is not a mental health center . . .*							
utilizes knowledge of physical, mental, social, and emotional growth and development in planning learning experiences to meet the special needs of students of various ages.	2	2	2				
COMMENTS: *important in elementary school! adults? . . . not all students have special needs. . .does "mental" include intellectual? . . .*							
demonstrates an awareness of the relationship of his/her personal ethics to professional ethics and the values of the community but not in the form of preaching.	1	1	1				
COMMENTS: *fuzzy . . .*							

ADDITIONAL COMPETENCY STATEMENTS SUGGESTED IN PROBE I

Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4

	New Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
	The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
(4)	demonstrates adequate grasp of subject matter being taught.	1	1	1				
(1)	makes use of appropriate learning theories.	1	1	1				
(2)	understands and accepts the community college philosophy and an understanding of the community college student and his/her problems.	1	1	1				
(1)	brings to the teaching situation experiences which enhance his/her teaching.	1	1	1				
(2)	demonstrates an understanding of the educational administrative process and maintains good working relationships with administrators.	2	1	2				
(2)	is technically competent at a high mid-management level and is able to be employed in some other position than in education.	2	1	1				
(2)	demonstrates responsibility in punctually attending assigned classes, in maintaining posted office hours, and in availability for conferences with students.	2	2	3				

	Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4							
	New Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
	The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
(1)	exhibits a high degree of credibility in his/her subject field.	2	1	1				
(1)	shows discretion in the handling of sensitive or confidential material.	2	2	2				
(1)	maintains practical relationships with the community.	2	2	2				
(1)	formulates instructional objectives that are compatible with the world of work.	2	1	1				
(1)	is interested in changing positions, schools, or what have you, to improve his/her position.	1	1	1				
(1)	utilizes adjustment procedures for students' upward mobility.	3	1	2				
(1)	focuses on changes as a normative element in life and is concerned with directing attention to possible implications involved.	1	1	1				
(1)	demonstrates ability in speech.	1	1	1				
(1)	teaches intellectual grasp of subject . . . recognition of one's limitations.	1	1	1				
(1)	possesses warmth.	1	1	1				

Very Important . . . 1 Important . . . 2 Slightly Important . . . 3 Unimportant . . . 4

	New Competency Statements	Probe I Results			Probe II Response			Reasons for Rating Revision
	The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont	
(1)	focuses attention toward problem areas in social life and provides perspectives for identification, possible factors responsible, value conflicts involved, and means of dealing with such problem areas.	1	1	1				
(1)	focuses attention toward possible end results of present activities, value orientations, and institutional structures in order to help students develop a futuristic orientation.	1	1	1				
(1)	wants to improve the course, curriculum, and program.	1	1	1				
(1)	does not excessively complain without giving constructive criticism.	2	2	2				
(1)	focuses attention on an appreciation of the similarities and differences of various cultures.	1	1	1				

APPENDIX N

COVER LETTER, PROBE III

Farragut Middle School

11138 KINGSTON PIKE
CONCORD, TENNESSEE 37922

AREA CODE (615) 966-9756

DONALD G. RHODES
PRINCIPAL

ROBERT W. FRAZIER
ASSISTANT PRINCIPAL

Thank you for responding to the previous probes of my Delphi Study concerning the essential competencies for effective community college teaching. No doubt you will be happy to note that this is Probe III, the final opinionnaire pertaining to the subject. At this point, your continued cooperation in the swift completion and return of this third round is vital to the satisfactory conclusion of my research.

The ratings and comments of the Probe II panel of experts have been compiled into this probe. On several of the competency statements, 100 percent agreement was reached. No additional response is necessary in those instances. However, for the majority of statements there was a variation in rating. These statements are followed by the reasons given by those panel members who chose to remain outside the mean rating. You are now asked to reconsider each statement, in light of the statistics shown and the opinions given. As you respond, please bear in mind that the statements should reflect competency rather than characteristic.

If you would take the time right now, or as soon as possible, to complete this final probe, I should be able to finish my research at the end of this quarter. At least try to return it to me at the address below within five days after it reaches you. Once again, please find enclosed a self-addressed, stamped, return envelope for your convenience.

I greatly appreciate your help with my study. Your time is valuable, and I am indebted to you for your generous allowance of it. I am equally beholden for the use of your unique expertise as an important link in the chain of Tennessee's system of community colleges. Allow me to express similar gratitude on behalf of Dr. Earl Ramer, my major professor.

Most sincerely,

Donald G. Rhodes

Donald G. Rhodes
602 Rockingham Drive
Knoxville, TN 37919

DGR:lad

Enclosures

P.S. I have enclosed a postal card that you may use to indicate if you would like to be sent an abstract of the results of the study. Please send the card separately from the Probe III response.

APPENDIX O

PROBE III

PROBE III

INSTRUCTIONS

The numerals in the boxes to the right of each of the following competency statements indicate the mean rating assigned each program type by the Probe II panel of experts. Appearing in many of the boxes are circled numbers representing the percentage of experts who chose to remain outside the mean. Those figures appearing above a numeral indicate the percentage of experts who rated the statement higher than the mean; those figures appearing below a numeral indicate the percentage of experts who rated the statement lower than the mean. Where no figures appear, 100% agreement is indicated and requires no new response.

Before making your Probe III response, please read the comments concerning a competency statement. These remarks are printed in italics directly below the statement and are the verbatim responses given by those experts who chose to remain outside the mean. If, after reading the comments, you disagree with a Probe II rating, please revise the rating to your satisfaction in the spaces provided further to the right. Should you feel the need to justify your reasons for disagreement, note your reasons on the reverse side of the page. If you agree with a Probe II rating, please copy the acceptable rating in the same spaces provided to the right. *Do not omit any judgments.*

Words and phrases deleted from the Probe II competency statements have lines drawn through them. Words and phrases added to the statements have been underscored.

This probe is color coded for ease in analysis of data. PLEASE DO NOT SIGN YOUR NAME!

EXAMPLE

VERY IMPORTANT . . . 1 IMPORTANT. 2			SLIGHTLY IMPORTANT . . . 3 UNIMPORTANT. 4			
REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
demonstrates an understanding of the community college system.	1	1 (18)	(25) 2 (10)	1	2	2
COMMENTS: *Such an understanding is essential to "vo-tech"!... even more important for continuing education... A large percent of our students are adults in continuing education. If we do not understand the community college, we cannot serve them well....*						

Please indicate below (✓) the grand division of the State of Tennessee in which your community college is located.

( ) West Tennessee ( ) Middle Tennessee ( ) East Tennessee

VERY IMPORTANT . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT . . . . 2 UNIMPORTANT 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
exhibits a personal philosophy of education which respects both theoretical and practical aspects of education.	1	1 (2)	(23) 2			
COMMENTS: *all must have a working personal philosophy... this is important to continuing education due to revised statement... equally important to continuing education... I fail to see that the teacher's philosophy as it pertains to continuing education, should be any different as it relates to transfer and vo-tech... unable to separate transfer/vo-tech/continuing... It's important for all personnel to exhibit these characteristics... Continuing education is a revolving process and has greater application for a broader segment of the society. Therefore the adult student requires effective teaching more than any other group.... theoretical for vo-tech?...*						
exhibits personal characteristics which reflect enthusiasm toward his/her profession and subject area.	1	1	1 (2)			
COMMENTS: *No comments were made.*						
identifies, selects, organizes, and implements classroom procedures which are consistent with measurable instructional goals and objectives.	1 (10)	1 (6)	1 (13)			
COMMENTS: *very essential... new wording improves statement... instructional goals and objectives: individual, class, or institution?... some teachers teach effectively without stated objectives... do not agree that all goals and objectives are measurable at the end of a course! Learning theory that is implied is not sound in all cases... some worthwhile goals and objectives may not be measurable... To my mind, the idea of behavioral objectives means more and more contracts. This invariably means less freedom of choice. In some areas, e.g., vo-tech, it is more appropriate--but not in the more humanistic oriented areas...depends on the "type" of continuing education being offered ... I think other objectives are just as important as the measurable ones... the word "objective" is redundant...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
provides alternative ways for students to satisfy objectives.	(23) 2	1 (71)	1 (13)			

COMMENTS: *alternative ways are an essential part of our philosophy... important for student... I feel that in vocational education there are several ways of getting the job done, not by theory alone as may be used from question one ... I fail to see why the students of the continuing education program should receive special consideration when compared to other student populations... because of the different ways of working and accomplishing the job... very necessary for technical students with varied career objectives and vocational backgrounds... unable to separate transfer/vo-tech/continuing... an alternative should always be provided in all areas... flexibility in attaining basic objectives is vital at all levels of education--especially in a time of over specialization... "Learning" is individualistic, depending upon strengths--alternative ways of reaching objectives are essential! equally important for all three areas... allows for individual differences to play important role... this is essential to good teaching... It is always important (extremely) to provide students alternative ways according to their needs and desires... no two people learn in exactly the same way... not all students respond equally to a given body of information... Could this confuse students? Ways must be clearly defined... alternative ways are not always appropriate or necessary...*

demonstrates knowledge of the latest techniques, processes, equipment, technology, methods, materials, and their application in his/her respective teaching field. ~~assuming they have been previously effective.~~	(21) 2 (2)	1 (6)	(17) 2 (2)			

COMMENTS: *the teacher must be as current as possible with the transfer student because of later complications it could cause... this is essential to good teaching... an effective teacher must have the knowledge and demonstrate it in all fields in which they are teaching... if they are "effective" they should be used for all... I feel this is especially important for transfer... What's important to the technical student is even more important in continuing education where students have excellent backgounds and are often more up to date than the instructors. If we get behind technology curve, we're in trouble.... does latest make it better?... depends on subject...*

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
demonstrates the use of skillful questions techniques that lead students to analyze, synthesize, think critically, ask relevant questions and experience discovery learning.	1 (4)	1 (6)	(19) 2			
COMMENTS: *applies to continuing education just as much as the others... no difference in continuing... this is essential to good teaching... This is extremely important in all areas... there are other effective strategies... I could easily be persuaded to change to a "1" rating. However, I do not believe the continuing education student should be looked upon anymore unfavorably in this respect than other student populations.... Vo-tech is teaching skills much more than experimenting and questioning... The adult student requires exercises and activities which will help him come to grasp with his environment. Certainly problem-solving is germane to successful living for him....*						
uses methods of instruction that help students acquire the basic study skills which can be used for both theoretical and practical courses.	1 (4)	1 (4)	(21) 2 (2)			
COMMENTS: *applies across the continuum of education... this is essential to good teaching... extremely important for all students... fail to see why continuing education students need this less... students should have developed these skills previous to college entrance...*						
explains to students the interrelationships among subject matter areas in terms of practical problems and challenges related to everyday living.	1 (6)	1 (60)	1 (69)			
COMMENTS: *important in almost all cases... Equally important to all areas but not first line importance. Students ideally "discover" this... continuing education is usually very closely connected to everyday living--and should be for the most effective teaching... this has application at all levels of education ... course must all be interrelated to life and other subjects to have worth... No difference in program. If it is good for one, it is good for all these programs.... applies to all students... very important for vo-tech (such as pre-engineering, etc)... good teaching... extremely important in all areas ... just as important to career students... of equal importance in all colleges ... Vo-tech should place special emphasis on the "practical"... I cannot think of two better justifications for education in relation to any student population.... In vocational education again, we have to look at practical areas more than we do in liberal arts areas.... Vo-tech is equally responsible for integrating subject matter...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
communicates subject matter, including the objectives and vocabulary in concepts and words appropriate to the level of the student's understanding.	1	1	1			
COMMENTS: *This should be appropriate to the course level (don't use 4th grade language for a college course)... communication is basic to teaching-learning ... most important...*						
employs a variety of techniques, materials, and methods which are appropriate to the adult learner and will actively involve each student in the learning situation.	1 (2)	1 (2)	1 (4)			
COMMENTS: *variety of techniques dependent upon subject matter... variety of techniques are not absolutely essential... some of those teaching in continuing education simply do not have background to enable them to employ a variety of techniques, methods, etc.... only adult learners?...*						
brings to the classroom a full repertoire of instructional plans and demonstrates the ability to apply a variety of instructional patterns and grouping skills as need dictates.	(15) 2 (2)	(15) 2 (2)	(13) 2 (2)			
COMMENTS: *again if this question gets at the question of flexible approaches, this is valuable--especially in light of the variation in student capabilities at the community college level... good teaching... we must provide students an alternative... versatility is the "heart" of quality instruction at all levels ... I feel grouping is necessary for vo-tech... Teaching at the community college is <u>all</u> important. Variable instructional approaches are germane to effective instruction... "grouping skills"--does this imply honors sections or some other approaches?... depends on subject... what is (1) a full repertoire; (2) a grouping skill?...*						
applies motivational techniques that are appropriate for the level of his/her students.	1	1	1 (2)			
COMMENTS: *If we do not motivate, we have been less than what we must be and this is professional to motivate... How? How do you motivate a student who has to take a required course?!...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
uses a variety of evaluative criteria for students in order to restructure the instructional program for utmost effectiveness.	1 (2)	1 (2)	1 (2)			
COMMENTS: *utmost means no more improvement possible... again, question necessity of variety...*						
demonstrates the ability to direct and participate in group processes in the classroom.	1 (15)	1 (75)	(23) 2			
COMMENTS: *to be able to work with a group applies to all areas in life... good instructional technique for all programs... no more important to transfer than to other... this is extremely important in teaching in any area... important to all... an ability needed in dealing with all students... vo-tech students need to learn how to work as a team... Probe I results underestimate importance of vo-tech and continuing education... in all cases, group process and inter-personal involvement is all important... it's very important to all three for maximum success... Important, but not as much as others... direct, yes...*						
implements the kind of discipline necessary for learning to take place, including the resolution of individual student problems with a minimum of disruption.	(10) 2 (6)	(10) 2 (4)	(10) 2 (6)			
COMMENTS: *Term discipline is difficult to define in this context--I would agree with the statement if it has to do with encouraging student responsibility ... discipline is necessary to all learning processes. Learning itself is a discipline... discipline is important in any classroom... If there were discipline problems, this would be very important. If no problem, it is absolutely unimportant. Bad question?... discipline has never been a problem in our institution... discipline is maintained through involvement of student --not discipline "methods"... how do you agree with these? What will a basket of ones and two prove? An effective teacher takes a situation and brings an effective set of skills for that situation....*						
adapts to varying instructional/learning situations as well as varying school conditions.	1 (6)	1 (8)	1 (6)			
COMMENTS: *not clear--I still do not know what this statement includes... two separate items--meaning what?... only within limitations of facilities and equipment...*						

VERY IMPORTANT . . . 1 IMPORTANT. 2			SLIGHTLY IMPORTANT . . . 3 UNIMPORTANT. 4		
REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE	
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
develops positive attitudes toward learning.	1 (2)	1 (2)	1 (2)			
COMMENTS: *has as a goal the development of positive attitudes toward learning ... if teacher doesn't have these he/she should be removed from the classroom ... "positive"?--criteria to be used in determining positive?... this is hard to do...*						
demonstrates a firm commitment to the ideal that teaching implies ~~compassion and humility with~~ a respect for the dignity of the student.	1 (4)	1 (4)	1 (4)			
COMMENTS: *too many ideas in this...*						
evidences fairness, tact, compassion, and good judgment in dealing with students.	1	1	1			
COMMENTS: *this statement contains the previous one, which could be eliminated...*						
utilizes knowledge of physical, mental, social, and emotional growth and development in planning learning experiences to meet the special needs of students of various ages.	(13) 2 (6)	(10) 2 (6)	(10) 2 (6)			
COMMENTS: *All adults have special needs. Needs cause the student to be in school more so as an adult... basic to good teaching--not always easy, but basic!!.... regarding comment: "not all students have special needs", this guy is something else--should he really be in education?... I believe this to be one of the most important aspects of teaching... we don't play this game nor do I allow my counselors (vo-tech) to get involved... this would be important only in certain courses in college such as psychology, etc.--also experiences cannot be provided...*						
establishes rapport with individual students.	1	1	1			
COMMENTS: *No comments were made.*						

VERY IMPORTANT . . . 1 IMPORTANT. 2			SLIGHTLY IMPORTANT . . . 3 UNIMPORTANT. 4		
REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
identifies ~~the problem~~ students with problems and makes appropriate referrals.	(13) 2 (8)	(10) 2 (8)	(8) 2 (10)			
COMMENTS: *the utilization of the counseling staff is important, we use with status of QPA students... this is where many students are lost... define "problem"--e.g., academic or discipline... not very practical at college level ... not necessary in a community college... elementary school; average age in community college about 29 years...*						
provides learning experiences situations which enable students to transfer principles and generalizations developed in a school college to situations outside of the school college.	1	1	1			
COMMENTS: *experiences are self acquired. . .*						
uses appropriate evaluative procedures based on pre-established and measurable goals and objectives, as an integral part of the total learning context.	1 (6)	1 (2)	(27) 2 (4)			
COMMENTS: *continuing as important as transfer or vo-tech... evaluation is important to continuing also; standard IX gives attention to this even though some different from others... just as necessary in continuing if goals are important... good teaching... extremely important in all areas... must be measurable... Should be the case for any type of educational program... all goals are not measurable at the end of a course... should all goals and objectives be measurable in all courses?... To my mind, the idea of behavioral objectives means more and more contracts, this invariably means less freedom of choice. In some areas, e.g., vo-tech, it is more appropriate--but not in the more humanistic oriented areas.... my trouble is most (80%) of continuing education students are vo-tech... need continual evaluation not just goal or objective evaluation... all objectives don't need to be pre-established or measurable. My objectives in all phases of life change from day to day. Also, I have to use subjective evaluation along with objective evaluation...*						

VERY IMPORTANT . . . 1 IMPORTANT. 2	SLIGHTLY IMPORTANT . . . 3 UNIMPORTANT. 4					
REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
aids students in the selection of, and evaluation of their progress toward, personal goals and objectives.	1 (6)	1 (6)	(17) 2 (2)			
COMMENTS: *just as important in the continuing education process, they may change their goals to transfer or vo-tech... should be the commitment of any and every teacher!!... In continuing education, assistance to the adult learner in the identification of "personal goals and objectives" is all important... of theoretical importance, is this practical?... This should be the responsibility of counseling, guidance, and advisement; not the classroom teacher... not "very important," just "important." Students are mature adults in many cases...*						
uses teaching techniques and strategies that aid students in developing a positive self-image.	1 (6)	1 (6)	1 (6)			
COMMENTS: *regarding the comment: "college is not a mental health center" (dumb)--this person is an educator?... developing a positive self-image definitely has a place in community college... Counseling centers in the colleges should be able to handle this problem... This cannot be done except indirectly like giving higher grades and a pat on the head... College is <u>not</u> a mental health center and the teacher should emphasize course material...*						
exhibits a professional attitude toward assigned and non-assigned responsibilities.	1 (2)	1 (2)	1 (2)			
COMMENTS: *consistent rather than "professional"...*						
demonstrates an awareness of the relationship of his/her personal ethics to professional ethics and the values of the community. ~~but-not-in-the-form-of preaching.~~	1 (13)	1 (13)	1 (15)			
COMMENTS: *I would end this sentence with the word "community." Frankly, I would re-phrase the entire question... Important, not very important--statement might be reworded... I disagree with the added statement on this probe. What does one mean by "preaching" in this context?... do not think personal-professional ethics are necessarily the same--not important to correlate... still fuzzy... can be aware of a bad relationship. <u>Good preaching</u> can provide a positive learning situation... does not seem to be all that important in continuing...*						

VERY IMPORTANT . . . 1 IMPORTANT. 2			SLIGHTLY IMPORTANT . . . 3 UMIMPORTANT. 4		
REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher. . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
demonstrates adequate grasp of subject matter being taught.	1 (2)	1 (2)	1 (2)			
COMMENTS: *adequate not good enough...*						
makes use of appropriate learning theories.	1 (4)	1 (4)	1 (4)			
COMMENTS: *No comments were made.*						
understands and accepts the community college philosophy and an understanding of the community college student and his/her problems.	1 (2)	1 (2)	1 (2)			
COMMENTS: *No comments were made.*						
brings to the teaching situation experiences which enhance his/her teaching.	1 (6)	1 (6)	1 (6)			
COMMENTS: *vague statement. Any effective teacher relies upon experiences...*						
demonstrates an a good understanding of the educational administrative process and maintains good working relationships with administrators.	1 (63)	1 (25)	1 (65)			
COMMENTS: *no reason for difference between groups... any full-time instructor should consider this very important... it is equally important to all... If not the case, then results of the previous four items would be affected... such relationships are necessary at all levels... very important?... I feel this is important in any situation... an instructor's job is much more than teaching; they must be able to long-range plan and need to know from works of operation... this is essential at any level of education... a good working relationship smooths out the educational process... basic... equally important in all areas... just as important for vo-tech... necessary for all individuals... this is a two way street--administrative is important... same level of importance for all areas... if faculty members do not accept policy and decisions, neither part will be happy... vital... I see no difference in terms of administrative understanding... view of an administrator... of secondary importance even to vo-tech... important, but not essential... necessary for job holding but not a key in being an effective community college instructor...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
is technically and administratively competent at a high mid-management level and is able to be employed in some other position than in education.	(10) 2 (10)	1 (15)	1 (15)			
COMMENTS: *not a competancy!... cannot place this under divisions as indicated. A teacher needs recourse to other kinds of employment. Why designate "mid-management"? That would depend upon the individual's talent.... "those who can, do"?? come on!!!... I don't agree with the statement that those who can, do, and those who can't, teach!... I'm not sure of "mid-management" being the right word. All instructors should be able to be employed in their fields outside education... should an M.D. be capable of employment as a salesman?...*						
demonstrates responsibility in punctually attending assigned classes, in maintaining posted office hours, and in availability for conferences with students.	1 (50)	1 (50)	(42) 2 (42)			
COMMENTS: *Teacher's example is one of the most important criteria for providing a positive learning situation... In all cases punctuality is important when dealing with learners. There is no justification for discrepancies in either case... being available for help is the "name of the game" in a community college... faculty must meet classes on time--it is not a matter of choice... how are all the previous criteria to be dealt with if these conditions are not met?... I disagree completely with these ratings; anything less than "one" would terminate even a good instructor... at least "2" even for continuing education... This is an area where teachers can be far too lax leading to much frustration on part of students... availability is an essential part of community college philosophy--one on one contact is most valuable... being punctual is a lesson by example. The teacher is there only for the student... to be student oriented, these are important practices... this is the concept of the community college.... not only responsibility but a duty, especially being available to students... can we help students if we do not do this? Unusual circumstances may alter this... I feel this is an extremely important obligation of all teachers... important to all... We require students to be punctual. Why shouldn't faculty be expected to do the same?... they are important as classroom lecture--too many abuse them... necessary... If you expect your students to be punctual, you also should be punctual. Also, administrator expects his people to maintain regular office hours.... view of an administrator...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
exhibits a high degree of credibility in his/her subject field.	1 (50)	1 (6)	1 (6)			
COMMENTS: *must do so in order to maintain respect of students!... in all phases of life... Why not for transfer? I feel this is very important!... just as important in the transfer area--maybe more... this is important in all fields... shouldn't we all... should be the case for any teacher... always necessary... I believe in credibility all along the line!... credibility essential in transfer instruction... very important for transfer... just as important at transfer level as all others... this is necessary for the teacher at <u>any</u> level in education... why not?... this must be done, especially for the transfer student... must be to be effective... this is included in "effective community college teaching"... meaning of credibility?... freshman and sophomore basics very important... very important in all...*						
shows discretion in the handling of sensitive or confidential material.	(23) 2	(23) 2	(23) 2			
COMMENTS: *this item really is not a normal function of a non-administrator even with the Buckley Amendment... a must--will lose confidence of student if not maintained... under present laws, this is extremely important... the Privacy Act seems to make this more important than ever...*						
maintains practical relationships with the community.	(13) 2 (2)	(21) 2 (2)	(17) 2 (4)			
COMMENTS: *philosophy of community college almost demands this... community college teaching should reflect awareness of community--instructor learns by contact... <u>very important</u> for vo-tech...less important... we <u>are</u> community colleges... what are practical relationships?... we have to <u>work</u> more closely with the business community in vo-tech education... this is a must for both vo-tech and continuing education or we miss the whole point of a community college...*						
formulates instructional objectives that are compatible with the world of work.	(13) 2 (2)	1 (4)	1 (8)			
COMMENTS: *necessary at all levels... why do we teach if it is not useful... too vague, whose work load? What is compatibility?...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
is interested in ~~changing positions, schools, or what have you to improve his/her position.~~ continuous professional growth.	1 (29)	1 (29)	1 (29)			
COMMENTS: *this is irrelevant to an effective teacher... has little to do with being an effective community college teacher... should this be restated?... ?... why?... could all be 4's depending on individual circumstances... has nothing to do with being an effective community college teacher... what?... Inappropriate... I wonder if a president would feel comfortable with a Dean that would rate this "1"?... needs to be student oriented not self centered... takes advantage of opportunities for self-improvement and advancement in profession... of some importance, but not equal to other behaviors/attitudes marked "1"...*						
utilizes adjustment procedures for students' upward mobility.	(21) 3 (19)	(65) 2 (23)	(4) 2 (23)			
COMMENTS: *don't understand this... what???... don't know what you mean... not sure what is meant... fuzzy... do not understand question as to upward mobility ... not an easy task, if I understand the statement correctly... no need for reasons... chiropractic adjustment? behavior adjustment?... not clear... meaning of adjustment procedures?... very important for transfer... a must with a large percent of community college students...*						
focuses on changes as a normative element in of life and is concerned with directing attention to possible implications involved.	1 (8)	1 (8)	1 (8)			
COMMENTS: *educational jargon in statement...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher. . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
focuses attention toward problem areas in social life and provides perspectives for identification, possible factors responsible, value conflicts involved, and means of dealing with such problem areas.	1 (25)	1 (25)	1 (31)			
COMMENTS: *good idea for a trained clinical psychologist--beyond the scope of average teacher... only when appropriate... jargon... how is one to gain such information from the "masses" of his/her students?... Pedaguese... sounds like a typical college trained counselor... This important only in certain courses. Would not apply in surveying dynamics, etc.... this is good "educator talk"... may have little to do with being an effective community college teacher... continuing does not become as involved due to nature of activities ... only slightly important in some areas of continuing education...*						
focuses attention toward possible end results of present activities, value orientations, and institutional structures in order to help students develop a futuristic orientation.	1 (19)	1 (19)	1 (27)			
COMMENTS: *three different questions with different values... bulloney!!... jargon... not a practical question... students not interested in where teacher is going... this is good "educator talk"... may not indicate an effective community college teacher...*						
demonstrates ~~ability in~~ communication skills through speech.	1 (13)	1 (15)	1 (13)			
COMMENTS: *communication... do you mean "articulate"?... how much ability?... less important than others...*						
possesses warmth.	1 (15)	1 (17)	1 (15)			
COMMENTS: *not a competency!!!... could all be 2's depending on what is meant by warmth... if he is compassionate as indicated previously, he is probably warm in relationship... more successful for student and teacher... don't understand this item--rating OK if we mean considerate... Less important than others...*						

VERY IMPORTANT . . . 1 SLIGHTLY IMPORTANT . . . 3
IMPORTANT. . . . . 2 UNIMPORTANT. 4

REVISED COMPETENCY STATEMENTS	PROBE II RESULTS			PROBE III RESPONSE		
The effective community college teacher . . .	Trans	Vo-Tech	Cont	Trans	Vo-Tech	Cont
teaches intellectual grasp of subject ... recognition of one's limitations.	1 (3)	1 (13)	1 (13)			
COMMENTS: *two different questions--educational gobbledygook... not clear... are these the same?... vague...*						
wants to improve the course, curriculum, and program.	1 (4)	1 (4)	1 (4)			
COMMENTS: *what is difference between curriculum and program?*						
does not excessively complain without giving constructive criticism.	(8) 2 (4)	(8) 2 (4)	(8) 2 (4)			
COMMENTS: *complain in what areas? vague... vaguely constructed... complain???... If one complains it is very important that he follow-up the complaining with positive remarks or at least justifiable and professional comments... excessive complainers generally get nowhere!...*						
focuses attention on an appreciation of the similarities and differences of various cultures.	1 (8)	1 (13)	1 (13)			
COMMENTS: *this is good but I don't think it is necessary... if applicable to situation... only slightly important for continuing education... social work again... also societies and people...*						
provides individualized instruction according to ability of students.	1 (4)	1 (2)	1 (4)			
COMMENTS: *good theory! but not very practical at the college level... depending on time limit... individualized instruction is possible in certain instructional areas, particularly vo-tech; but it is not always possible where large classes are the rule, especially in the humanities and social sciences...*						

APPENDIX P

RESPONDENTS' REMARKS FROM PROBE III RETURNS

LISTED BY ITEM NUMBER

RESPONDENTS' REMARKS FROM PROBE III RETURNS

LISTED BY ITEM NUMBER

Item:

3 In many cases yes; but not mathematically measureable in every case. . . . I feel that you cannot possibly use the behavioral objectives approach in the more humanistic oriented areas.

16 Vague. I do not understand intent of this question. I have placed rating arbitrarily to fill the boxes.

17 The teacher's attitude or the students?

21 Individual rapport is difficult when large classes are involved.

23 Terminology implies a strong knowledge of learning theory.

28 Statement needs clarity. In fact, I would omit statement as it now is worded. Perhaps one might say: "Possesses a code of ethics which permits him to teach effectively in a community college."

29 See page 11 [statement 36]. . . .

30 Do you assume all teachers are exposed to learning theory?

33 Sometimes effective teachers are not "good" in the eyes of administrators.

34 Not necessary. . . .

36 I fail to see the difference between this question and the one on page 9 [statement 29].

41 Unclear . . . Statement ambiguous . . . What do you mean by "adjustment procedures?" Rating arbitrary. . . .

Item:

42 Statement is meaningless . . . vague . . . meaningless statement . . . educational jargon. . . . If what is meant here is that change is part of life and that we need to learn to adjust and/or handle situations then [rate them 1's].

44 What is "futuristic orientation?" to what?

45 Vague statement—[should be] "demonstrates high proficiency in articulating well with students."

46 Not a competency . . . Not a competency. Should be excluded.

47 Throw out . . . Not clear; rating is invalid as far as I am concerned.

49 Throw out . . . To whom; about what?

50 Meaningless statement . . . is possibly incompetent to do so. . . .

51 Throw out . . . Individualized instruction is hardly possible in certain types of courses, especially the humanities and social sciences.

APPENDIX Q

FINAL LIST OF COMPETENCY STATEMENTS

FINAL LIST OF COMPETENCY STATEMENTS

The effective community college teacher

1. exhibits a personal philosophy of education which respects both theoretical and practical aspects of education.
2. exhibits personal characteristics which reflect enthusiasm toward his/her profession and subject area.
3. identifies, selects, organizes, and implements classroom procedures which are consistent with measurable instructional goals and objectives.
4. provides alternative ways for students to satisfy objectives.
5. demonstrates knowledge of the latest techniques, processes, equipment, technology, methods, materials, and their application in his/her respective teaching field.
6. demonstrates the use of skillful techniques that lead students to analyze, synthesize, think critically, ask relevant questions, and experience discovery learning.
7. uses methods of instruction that help students acquire the basic study skills which can be used for both theoretical and practical courses.
8. explains to students the interrelationships among subject matter areas in terms of practical problems and challenges related to everyday living.

9. communicates subject matter, including the objectives and vocabulary in concepts and words appropriate to the level of the student's understanding.
10. employs a variety of techniques, materials, and methods which are appropriate to the adult learner and will actively involve each student in the learning situation.
11. brings to the classroom a full repertoire of instructional plans and demonstrates the ability to apply a variety of instructional patterns and grouping skills as need dictates.
12. applies motivational techniques that are appropriate for the level of his/her students.
13. uses a variety of evaluative criteria for students in order to restructure the instructional program for utmost effectiveness.
14. demonstrates the ability to direct and participate in group processes in the classroom.
15. implements the kind of discipline necessary for learning to take place, including the resolution of individual student problems with a minimum of disruption.
16. adapts to varying instructional/learning situations as well as varying school conditions.
17. develops positive attitudes toward learning.
18. demonstrates a firm commitment to the ideal that teaching implies respect for the dignity of the student.
19. evidences fairness, tact, compassion, and good judgment in dealing with students.

20. utilizes knowledge of physical, mental, social, and emotional growth and development in planning learning experiences to meet the special needs of students of various ages.
21. establishes rapport with individual students.
22. identifies students with problems and makes appropriate referrals.
23. provides learning situations which enable students to transfer principles and generalizations developed in college to situations outside of college.
24. uses appropriate evaluative procedures based on preestablished and measurable goals and objectives, as an integral part of the total learning context.
25. aids students in the selection of, and evaluation of their progress toward, personal goals and objectives.
26. uses teaching techniques and strategies that aid students in developing a positive self-image.
27. exhibits a professional attitude toward assigned and nonassigned responsibilities.
28. demonstrates an awareness of the relationship of his/her personal ethics to professional ethics and the values of the community.
29. demonstrates adequate grasp of subject matter being taught.
30. makes use of appropriate learning theories.

31. understands and accepts the community college philosophy and an understanding of the community college student and his/her problems.
32. brings to the teaching situation experiences which enhance his/her teaching.
33. demonstrates a good understanding of the educational administrative process and maintains good working relationships with administrators.
34. is technically and administratively competent at a high midmanagement level and is able to be employed in some other position than in education.
35. demonstrates responsibility in punctually attending assigned classes, in maintaining posted office hours, and in availability for conferences with students.
36. exhibits a high degree of credibility in his/her subject field.
37. shows discretion in the handling of sensitive or confidential material.
38. maintains practical relationships with the community.
39. formulates instructional objectives that are compatible with the world of work.
40. is interested in continuous professional growth.
41. utilizes adjustment procedures for students' upward mobility.

42. focuses on change as a normative element of life and is concerned with directing attention to possible implications involved.
43. focuses attention toward problem areas in social life and provides perspectives for identification, possible factors responsible, value conflicts involved, and means of dealing with such problem areas.
44. focuses attention toward possible end results of present activities, value orientations, and institutional structures in order to help students develop a futuristic orientation.
45. demonstrates communication skills through speech.
46. possesses warmth.
47. teaches intellectual grasp of subject . . . recognition of one's limitations.
48. wants to improve the course, curriculum, and program.
49. does not excessively complain without giving constructive criticism.
50. focuses attention on an appreciation of the similarities and differences of various cultures.
51. provides individualized instruction according to ability of students.

APPENDIX R

TABLES

TABLE IV

PROBE III COMPETENCY STATEMENTS RANKED
BY MEAN ACCORDING TO PROGRAM TYPE

Transfer			Vocational-Technical			Continuing		
Rank	Item	Mean	Rank	Item	Mean	Rank	Item	Mean
4	2	1.00	4.5	9	1.00	3	9	1.00
4	9	1.00	4.5	10	1.00	3	17	1.00
4	10	1.00	4.5	12	1.00	3	18	1.00
4	12	1.00	4.5	17	1.00	3	19	1.00
4	17	1.00	4.5	18	1.00	3	29	1.00
4	18	1.00	4.5	19	1.00	8	2	1.02
4	19	1.00	4.5	29	1.00	8	16	1.02
10.5	6	1.02	4.5	36	1.00	8	32	1.02
10.5	16	1.02	11	2	1.02	8	36	1.02
10.5	29	1.02	11	16	1.02	8	48	1.02
10.5	32	1.02	11	32	1.02	12.5	10	1.04
10.5	36	1.02	11	39	1.02	12.5	23	1.04
10.5	48	1.02	11	48	1.02	12.5	26	1.04
17	1	1.04	15	23	1.04	12.5	27	1.04
17	8	1.04	15	26	1.04	16	12	1.06
17	23	1.04	15	27	1.04	16	31	1.06
17	26	1.04	18	3	1.06	16	45	1.06
17	27	1.04	18	31	1.06	18	39	1.08
17	35	1.04	18	45	1.06	20	13	1.10
17	45	1.04	21	5	1.08	20	21	1.10
21	31	1.06	21	7	1.08	20	30	1.10
23	7	1.08	21	30	1.08	22	3	1.15
23	13	1.08	24	6	1.10	23	4	1.21
23	30	1.08	24	13	1.10	24	42	1.23
25	21	1.10	24	21	1.10	25	33	1.27
27	3	1.15	27	8	1.13	26	51	1.33
27	14	1.15	27	35	1.13	27	43	1.38
27	25	1.15	27	40	1.13	29	47	1.40
29	24	1.19	30	1	1.15	29	44	1.40
30.5	33	1.23	30	24	1.15	29	46	1.40
30.5	42	1.23	30	25	1.15	31	50	1.42
32	51	1.27	32	14	1.19	32	6	1.48

TABLE IV (continued)

Transfer			Vocational-Technical			Continuing		
Rank	Item	Mean	Rank	Item	Mean	Rank	Item	Mean
33	50	1.33	34.5	33	1.21	33	34	1.50
35	43	1.35	34.5	51	1.21	34	14	1.54
35	44	1.35	35	42	1.23	35	35	1.56
35	47	1.35	36	4	1.27	36	37	1.60
37	46	1.40	37	34	1.31	37	1	1.63
38	4	1.60	39	43	1.35	38.5	7	1.65
39.5	5	1.63	39	44	1.35	38.5	24	1.65
39.5	37	1.63	39	47	1.35	40	5	1.67
41.5	28	1.67	41	46	1.40	42	8	1.67
41.5	40	1.67	42	50	1.44	42	28	1.67
43	39	1.75	43	37	1.65	42	40	1.67
44.5	11	1.81	44	28	1.67	44	25	1.73
44.5	38	1.81	45	38	1.73	45.5	38	1.81
46	22	1.85	46.5	22	1.83	45.5	49	1.81
47	15	1.88	46.5	49	1.83	47	22	1.92
48	20	1.90	48	11	1.85	48	11	1.94
49	34	2.00	49	15	1.88	49	15	1.94
50	49	2.33	50	20	1.92	50	20	1.96
51	41	2.81	51	41	2.27	51	41	2.33

TABLE V

PROBE III COMPETENCY STATEMENTS RANKED BY MEAN ACCORDING TO GROUP AND TRANSFER PROGRAM

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
15.5	1	1.00	15.5	1	1.00	8.5	2	1.00	8	1	1.00	12	1	1.00	12	1	1.00	17.5	2	1.00
15.5	2	1.00	15.5	2	1.00	8.5	6	1.00	8	2	1.00	12	2	1.00	12	2	1.00	17.5	3	1.00
15.5	3	1.00	15.5	6	1.00	8.5	9	1.00	8	8	1.00	12	3	1.00	12	3	1.00	17.5	6	1.00
15.5	6	1.00	15.5	7	1.00	8.5	10	1.00	8	9	1.00	12	6	1.00	12	6	1.00	17.5	7	1.00
15.5	8	1.00	15.5	8	1.00	8.5	12	1.00	8	10	1.00	12	9	1.00	12	7	1.00	17.5	8	1.00
15.5	9	1.00	15.5	9	1.00	8.5	17	1.00	8	12	1.00	12	10	1.00	12	8	1.00	17.5	9	1.00
15.5	10	1.00	15.5	10	1.00	8.5	18	1.00	8	16	1.00	12	12	1.00	12	9	1.00	17.5	10	1.00
15.5	12	1.00	15.5	12	1.00	8.5	19	1.00	8	17	1.00	12	13	1.00	12	10	1.00	17.5	12	1.00
15.5	14	1.00	15.5	14	1.00	8.5	23	1.00	8	18	1.00	12	16	1.00	12	12	1.00	17.5	13	1.00
15.5	16	1.00	15.5	16	1.00	8.5	26	1.00	8	19	1.00	12	17	1.00	12	13	1.00	17.5	14	1.00
15.5	17	1.00	15.5	17	1.00	8.5	29	1.00	8	29	1.00	12	18	1.00	12	16	1.00	17.5	16	1.00
15.5	18	1.00	15.5	18	1.00	8.5	32	1.00	8	32	1.00	12	19	1.00	12	17	1.00	17.5	17	1.00
15.5	19	1.00	15.5	19	1.00	8.5	36	1.00	8	36	1.00	12	21	1.00	12	18	1.00	17.5	18	1.00
15.5	21	1.00	15.5	21	1.00	8.5	40	1.00	8	45	1.00	12	23	1.00	12	19	1.00	17.5	19	1.00
15.5	23	1.00	15.5	23	1.00	8.5	45	1.00	8	48	1.00	12	24	1.00	12	21	1.00	17.5	21	1.00
15.5	24	1.00	15.5	24	1.00	8.5	48	1.00	19.5	6	1.11	12	25	1.00	12	23	1.00	17.5	23	1.00
15.5	25	1.00	15.5	25	1.00	22	1	1.17	19.5	7	1.11	12	26	1.00	12	25	1.00	17.5	24	1.00
15.5	26	1.00	15.5	26	1.00	22	7	1.17	19.5	13	1.11	12	27	1.00	12	26	1.00	17.5	25	1.00
15.5	27	1.00	15.5	27	1.00	22	8	1.17	19.5	27	1.11	12	29	1.00	12	27	1.00	17.5	26	1.00
15.5	29	1.00	15.5	29	1.00	22	13	1.17	19.5	30	1.11	12	30	1.00	12	28	1.00	17.5	27	1.00

TABLE V (continued)

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
15.5	30	1.00	15.5	30	1.00	22	14	1.17	19.5	31	1.11	12	32	1.00	12	31	1.00	17.5	28	1.00
15.5	31	1.00	15.5	31	1.00	22	16	1.17	19.5	40	1.11	12	36	1.00	12	32	1.00	17.5	29	1.00
15.5	32	1.00	15.5	35	1.00	22	27	1.17	19.5	43	1.11	12	48	1.00	12	36	1.00	17.5	30	1.00
15.5	35	1.00	15.5	36	1.00	22	31	1.17	27.5	3	1.22	27.5	7	1.14	28	14	1.20	17.5	31	1.00
15.5	40	1.00	15.5	42	1.00	22	33	1.17	27.5	21	1.22	27.5	8	1.14	28	29	1.20	17.5	32	1.00
15.5	42	1.00	15.5	45	1.00	22	35	1.17	27.5	23	1.22	27.5	28	1.14	28	30	1.20	17.5	33	1.00
15.5	45	1.00	15.5	47	1.00	22	51	1.17	27.5	24	1.22	27.5	31	1.14	28	33	1.20	17.5	35	1.00
15.5	46	1.00	15.5	48	1.00	29	28	1.33	27.5	26	1.22	27.5	35	1.14	28	35	1.20	17.5	36	1.00
15.5	47	1.00	15.5	50	1.00	29	30	1.33	27.5	33	1.22	27.5	45	1.14	28	40	1.20	17.5	45	1.00
15.5	48	1.00	15.5	51	1.00	29	44	1.33	27.5	35	1.22	27.5	50	1.14	28	42	1.20	17.5	46	1.00
33.5	7	1.13	34.5	3	1.17	31.5	21	1.50	27.5	42	1.22	27.5	51	1.14	28	45	1.20	17.5	47	1.00
33.5	13	1.13	34.5	13	1.17	31.5	37	1.50	34.5	14	1.33	2.5	14	1.29	28	48	1.20	17.5	48	1.00
33.5	28	1.13	34.5	28	1.17	37	3	1.67	34.5	25	1.33	32.5	42	1.29	33	4	1.40	17.5	50	1.00
33.5	33	1.13	34.5	32	1.17	37	4	1.67	34.5	28	1.33	34.5	40	1.43	36.5	24	1.60	17.5	51	1.00
33.5	36	1.13	34.5	40	1.17	37	5	1.67	34.5	44	1.33	34.5	47	1.43	36.5	43	1.60	36	1	1.14
33.5	51	1.13	34.5	43	1.17	37	15	1.67	34.5	50	1.33	39	4	1.57	36.5	44	1.60	36	42	1.14
37.5	43	1.25	34.5	44	1.17	37	22	1.67	34.5	51	1.33	39	5	1.57	36.5	46	1.60	36	43	1.14
37.5	44	1.25	34.5	46	1.17	37	24	1.67	38.5	46	1.44	39	11	1.57	36.5	47	1.60	38.5	40	1.29
39	50	1.38	39	33	1.33	37	25	1.67	38.5	47	1.44	39	33	1.57	36.5	50	1.60	38.5	44	1.29
40	4	1.50	40.5	5	1.50	37	39	1.67	40.5	37	1.56	39	44	1.57	42	5	1.80	41	5	1.43
41	5	1.63	40.5	39	1.50	37	43	1.67	40.5	49	1.56	39	46	1.57	42	34	1.80	41	37	1.43
42.5	37	1.75	44.5	4	1.67	44	11	1.83	42	4	1.67	39	49	1.57	42	37	1.80	41	38	1.43
42.5	39	1.75	44.5	37	1.67	44	20	1.83	44	5	1.78	44	22	1.71	42	39	1.80	44.5	4	1.71
45	11	1.88	44.5	38	1.67	44	38	1.83	44	34	1.78	44	37	1.71	42	51	1.80	44.5	11	1.71

TABLE V (continued)

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
45	20	1.88	44.5	49	1.67	44	42	1.83	44	38	1.78	44	43	1.71	46.5	11	2.00	44.5	15	1.71
45	22	1.88	47	11	1.83	44	49	1.83	47	11	1.89	47.5	15	1.86	46.5	15	2.00	44.5	39	1.71
47.5	15	2.00	47	20	1.83	47	50	2.00	47	15	1.89	47.5	20	1.86	46.5	20	2.00	48	20	1.86
47.5	38	2.00	47	22	1.83	49	34	2.17	47	39	1.89	47.5	38	1.86	46.5	22	2.00	48	22	1.86
50	34	2.13	49	15	2.00	49	46	2.17	49.5	20	2.00	47.5	39	1.86	49.5	38	2.20	48	49	1.86
50	49	2.13	50	34	2.17	49	47	2.17	49.5	22	2.00	50	34	2.00	49.5	49	2.20	50	34	2.00
50	41	2.13	51	41	2.67	51	41	2.67	51	41	3.22	51	41	2.86	51	41	2.40	51	41	3.00

R = Rank.

I = Item.

TABLE VI

PROBE III COMPETENCY STATEMENTS RANKED BY MEAN ACCORDING TO GROUP AND VOCATIONAL-TECHNICAL PROGRAM

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
15.5	1	1.00	14.5	2	1.00	8	5	1.00	8.5	1	1.00	12	2	1.00	14.5	1	1.00	20	1	1.00
15.5	2	1.00	14.5	5	1.00	8	8	1.00	8.5	2	1.00	12	3	1.00	14.5	2	1.00	20	2	1.00
15.5	3	1.00	14.5	6	1.00	8	9	1.00	8.5	3	1.00	12	6	1.00	14.5	3	1.00	20	3	1.00
15.5	6	1.00	14.5	7	1.00	8	10	1.00	8.5	9	1.00	12	7	1.00	14.5	5	1.00	20	5	1.00
15.5	8	1.00	14.5	9	1.00	8	12	1.00	8.5	10	1.00	12	9	1.00	14.5	6	1.00	20	6	1.00
15.5	9	1.00	14.5	10	1.00	8	17	1.00	8.5	12	1.00	12	10	1.00	14.5	7	1.00	20	7	1.00
15.5	10	1.00	14.5	12	1.00	8	18	1.00	8.5	16	1.00	12	12	1.00	14.5	9	1.00	20	8	1.00
15.5	12	1.00	14.5	16	1.00	8	19	1.00	8.5	17	1.00	12	13	1.00	14.5	10	1.00	20	9	1.00
15.5	16	1.00	14.5	17	1.00	8	23	1.00	8.5	18	1.00	12	16	1.00	14.5	12	1.00	20	10	1.00
15.5	17	1.00	14.5	18	1.00	8	26	1.00	8.5	19	1.00	12	17	1.00	14.5	13	1.00	20	12	1.00
15.5	18	1.00	14.5	19	1.00	8	29	1.00	8.5	29	1.00	12	18	1.00	14.5	14	1.00	20	13	1.00
15.5	19	1.00	14.5	21	1.00	8	32	1.00	8.5	32	1.00	12	19	1.00	14.5	16	1.00	20	14	1.00
15.5	21	1.00	14.5	23	1.00	8	36	1.00	8.5	36	1.00	12	21	1.00	14.5	17	1.00	20	16	1.00
15.5	23	1.00	14.5	24	1.00	8	39	1.00	8.5	39	1.00	12	23	1.00	14.5	18	1.00	20	17	1.00
15.5	24	1.00	14.5	25	1.00	8	48	1.00	8.5	45	1.00	12	24	1.00	14.5	19	1.00	20	18	1.00
15.5	25	1.00	14.5	26	1.00	20.5	2	1.17	8.5	48	1.00	12	25	1.00	14.5	21	1.00	20	19	1.00
15.5	26	1.00	14.5	27	1.00	20.5	7	1.17	20	5	1.11	12	26	1.00	14.5	23	1.00	20	21	1.00
15.5	27	1.00	14.5	29	1.00	20.5	13	1.17	20	27	1.11	12	27	1.00	14.5	25	1.00	20	23	1.00
15.5	29	1.00	14.5	30	1.00	20.5	16	1.17	20	30	1.11	12	29	1.00	14.5	26	1.00	20	24	1.00
15.5	30	1.00	14.5	31	1.00	20.5	27	1.17	20	31	1.11	12	30	1.00	14.5	27	1.00	20	25	1.00

TABLE VI (continued)

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
15.5	31	1.00	14.5	3	1.00	20.5	31	1.17	20	33	1.11	12	32	1.00	14.5	28	1.00	20	26	1.00
15.5	32	1.00	14.5	36	1.00	20.5	35	1.17	20	40	1.11	12	36	1.00	14.5	29	1.00	20	27	1.00
15.5	36	1.00	14.5	39	1.00	20.5	40	1.17	20	43	1.11	12	48	1.00	14.5	31	1.00	20	28	1.00
15.5	39	1.00	14.5	42	1.00	20.5	43	1.17	30	6	1.22	28	8	1.14	14.5	32	1.00	20	29	1.00
15.5	40	1.00	14.5	45	1.00	20.5	45	1.17	30	7	1.22	28	28	1.14	14.5	34	1.00	20	30	1.00
15.5	42	1.00	14.5	47	1.00	30	3	1.33	30	8	1.22	28	31	1.14	14.5	36	1.00	20	31	1.00
15.5	45	1.00	14.5	48	1.00	30	4	1.33	30	13	1.22	28	35	1.14	14.5	39	1.00	20	32	1.00
15.5	46	1.00	14.5	51	1.00	30	14	1.33	30	14	1.22	28	39	1.14	14.5	40	1.00	20	33	1.00
15.5	47	1.00	34	1	1.17	30	24	1.33	30	21	1.22	28	45	1.14	32.5	4	1.20	20	34	1.00
15.5	48	1.00	34	3	1.17	30	28	1.33	30	23	1.22	28	47	1.14	32.5	8	1.20	20	35	1.00
34.5	5	1.13	34	4	1.17	30	30	1.33	30	24	1.22	28	50	1.14	32.5	30	1.20	20	36	1.00
34.5	7	1.13	34	13	1.17	30	33	1.33	30	26	1.22	28	51	1.14	32.5	33	1.20	20	39	1.00
34.5	13	1.13	34	28	1.17	30	44	1.33	30	34	1.22	35	4	1.29	32.5	35	1.20	20	40	1.00
34.5	14	1.13	34	32	1.17	30	51	1.33	30	35	1.22	35	5	1.29	32.5	42	1.20	20	45	1.00
34.5	28	1.13	34	34	1.17	37	1	1.50	30	42	1.22	35	14	1.29	32.5	45	1.20	20	46	1.00
34.5	33	1.13	34	40	1.17	37	6	1.50	30	51	1.22	35	34	1.29	32.5	48	1.20	20	47	1.00
34.5	35	1.13	34	43	1.17	37	21	1.50	38.5	4	1.33	35	42	1.29	39.5	24	1.60	20	48	1.00
34.5	51	1.13	34	44	1.17	37	22	1.50	38.5	25	1.33	39	1	1.43	39.5	43	1.60	20	50	1.00
40	4	1.25	34	46	1.17	37	37	1.50	38.5	28	1.33	39	33	1.43	39.5	44	1.60	20	51	1.00
40	43	1.25	41.5	8	1.33	40.5	15	1.67	38.5	44	1.33	39	40	1.43	39.5	46	1.60	40.5	42	1.14
40	44	1.25	41.5	14	1.33	40.5	25	1.67	41.5	46	1.44	42	44	1.57	39.5	47	1.60	40.5	43	1.14
42	50	1.38	41.5	33	1.33	44	11	1.83	41.5	47	1.44	42	46	1.57	39.5	50	1.60	43	4	1.29
43	34	1.50	41.5	50	1.33	44	20	1.83	43.5	37	1.56	42	49	1.57	44	37	1.80	43	38	1.29
44	37	1.75	45	22	1.67	44	38	1.83	43.5	50	1.56	44.5	37	1.71	44	38	1.80	43	44	1.29

TABLE VI (continued)

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
46.5	11	1.88	45	38	1.67	44	42	1.83	45	49	1.67	44.5	43	1.71	44	51	1.80	45	37	1.43
46.5	20	1.88	45	49	1.67	44	49	1.83	46	38	1.78	47.5	11	1.86	48	11	2.00	47	11	1.71
46.5	22	1.88	48	11	1.83	47.5	34	2.00	47.5	11	1.89	47.5	15	1.86	48	15	2.00	47	15	1.71
46.5	38	1.88	48	20	1.83	47.5	41	2.00	47.5	15	1.89	47.5	22	1.86	48	20	2.00	47	20	1.71
49	15	2.00	48	37	1.83	50	46	2.17	49	22	2.00	47.5	38	1.86	48	22	2.00	48.5	22	1.86
50	41	2.13	50	15	2.00	50	47	2.17	50	20	2.11	50	20	2.00	48	41	2.00	48.5	49	1.86
50.5	49	2.13	51	41	2.17	50	50	2.17	51	41	2.78	51	41	2.29	51	49	2.20	51	41	2.29

R = Rank.

I = Item.

TABLE VII

PROBE III COMPETENCY STATEMENTS RANKED BY MEAN ACCORDING TO GROUP AND CONTINUING PROGRAM

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
12	2	1.00	10	2	1.00	6.5	8	1.00	6.5	2	1.00	10	2	1.00	11.5	2	1.00	13.5	2	1.00
12	3	1.00	10	9	1.00	6.5	9	1.00	6.5	9	1.00	10	3	1.00	11.5	3	1.00	13.5	3	1.00
12	9	1.00	10	10	1.00	6.5	10	1.00	6.5	10	1.00	10	9	1.00	11.5	9	1.00	13.5	9	1.00
12	10	1.00	10	12	1.00	6.5	12	1.00	6.5	16	1.00	10	10	1.00	11.5	10	1.00	13.5	13	1.00
12	16	1.00	10	16	1.00	6.5	17	1.00	6.5	17	1.00	10	12	1.00	11.5	12	1.00	13.5	16	1.00
12	17	1.00	10	17	1.00	6.5	18	1.00	6.5	18	1.00	10	13	1.00	11.5	13	1.00	13.5	17	1.00
12	18	1.00	10	18	1.00	6.5	19	1.00	6.5	19	1.00	10	16	1.00	11.5	16	1.00	13.5	18	1.00
12	19	1.00	10	19	1.00	6.5	23	1.00	6.5	29	1.00	10	17	1.00	11.5	17	1.00	13.5	19	1.00
12	21	1.00	10	21	1.00	6.5	26	1.00	6.5	32	1.00	10	18	1.00	11.5	18	1.00	13.5	21	1.00
12	23	1.00	10	23	1.00	6.5	29	1.00	6.5	36	1.00	10	19	1.00	11.5	19	1.00	13.5	23	1.00
12	26	1.00	10	26	1.00	6.5	32	1.00	6.5	45	1.00	10	21	1.00	11.5	21	1.00	13.5	26	1.00
12	27	1.00	10	27	1.00	6.5	36	1.00	6.5	48	1.00	10	23	1.00	11.5	23	1.00	13.5	27	1.00
12	29	1.00	10	29	1.00	6.5	48	1.00	16	4	1.11	10	26	1.00	11.5	26	1.00	13.5	28	1.00
12	31	1.00	10	30	1.00	18	2	1.17	16	12	1.11	10	27	1.00	11.5	27	1.00	13.5	29	1.00
12	32	1.00	10	31	1.00	18	4	1.17	16	27	1.11	10	29	1.00	11.5	28	1.00	13.5	30	1.00
12	36	1.00	10	39	1.00	18	13	1.17	16	30	1.11	10	30	1.00	11.5	29	1.00	13.5	31	1.00
12	39	1.00	10	42	1.00	18	16	1.17	16	31	1.11	10	32	1.00	11.5	31	1.00	13.5	32	1.00
12	40	1.00	10	45	1.00	18	27	1.17	16	40	1.11	10	36	1.00	11.5	32	1.00	13.5	33	1.00
12	42	1.00	10	48	1.00	18	31	1.17	16	43	1.11	10	48	1.00	11.5	34	1.00	13.5	36	1.00
12	45	1.00	25	3	1.17	18	39	1.17	24	3	1.22	23.5	8	1.14	11.5	36	1.00	13.5	39	1.00

TABLE VII (continued)

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
12	46	1.00	25	4	1.17	18	40	1.17	24	8	1.22	23.5	24	1.14	11.5	39	1.00	13.5	45	1.00
12	47	1.00	25	13	1.17	18	45	1.17	24	13	1.22	23.5	28	1.14	11.5	40	1.00	13.5	46	1.00
12	48	1.00	25	28	1.17	27	6	1.33	24	21	1.22	23.5	31	1.14	11.5	4	1.20	13.5	47	1.00
26.5	8	1.13	25	32	1.17	27	7	1.33	24	23	1.22	23.5	39	1.14	26.5	6	1.20	13.5	48	1.00
26.5	12	1.13	25	36	1.17	27	14	1.33	24	26	1.22	23.5	45	1.14	26.5	8	1.20	13.5	50	1.00
26.5	13	1.13	25	38	1.17	27	28	1.33	24	33	1.22	23.5	50	1.14	26.5	14	1.20	13.5	51	1.00
26.5	28	1.13	25	40	1.17	27	30	1.33	24	39	1.22	23.5	51	1.14	26.5	30	1.20	29.5	4	1.14
26.5	30	1.13	25	46	1.17	27	33	1.33	24	42	1.22	28.5	6	1.29	26.5	42	1.20	29.5	8	1.14
26.5	33	1.13	25	47	1.17	27	35	1.33	30	28	1.33	28.5	42	1.29	26.5	45	1.20	29.5	12	1.14
31.5	4	1.25	25	51	1.17	27	37	1.33	30	31	1.33	34.5	4	1.43	26.5	48	1.20	29.5	34	1.14
31.5	43	1.25	33.5	8	1.33	27	44	1.33	30	44	1.33	34.5	7	1.43	32	1	1.40	29.5	42	1.14
31.5	44	1.25	33.5	33	1.33	33	5	1.50	33.5	46	1.44	34.5	40	1.43	32	25	1.40	29.5	43	1.14
31.5	51	1.25	33.5	34	1.33	33	21	1.50	33.5	47	1.44	34.5	47	1.43	32	33	1.40	35.5	6	1.29
35	6	1.38	33.5	43	1.33	33	22	1.50	33.5	50	1.44	34.5	1	1.57	37	7	1.60	35.5	10	1.29
35	35	1.38	33.5	44	1.33	37.5	1	1.67	33.5	51	1.44	34.5	5	1.57	37	24	1.60	35.5	35	1.29
35	50	1.38	33.5	50	1.33	37.5	3	1.67	36.5	34	1.56	34.5	14	1.57	37	43	1.60	35.5	37	1.29
37	34	1.50	37.5	14	1.67	37.5	15	1.67	36.5	37	1.56	34.5	33	1.57	37	44	1.60	35.5	40	1.29
39	14	1.63	37.5	49	1.67	37.5	43	1.67	39	25	1.67	34.5	46	1.57	37	46	1.60	35.5	44	1.29
39	24	1.63	41.5	1	1.83	37.5	49	1.67	39	35	1.67	34.5	49	1.57	37	47	1.60	40.5	1	1.43
39	25	1.63	41.5	5	1.83	37.5	51	1.67	39	49	1.67	44	15	1.71	37	50	1.60	42.5	5	1.43
42.5	1	1.75	41.5	7	1.83	43	11	1.83	43	5	1.78	44	25	1.71	43	5	1.80	40.5	14	1.43
42.5	5	1.75	41.5	24	1.83	43	20	1.83	43	6	1.78	44	34	1.71	43	35	1.80	40.5	38	1.43
42.5	7	1.75	41.5	35	1.83	43	24	1.83	43	7	1.78	44	35	1.71	43	37	1.80	44	7	1.71
42.5	37	1.75	41.5	37	1.83	43	38	1.83	43	14	1.78	44	37	1.71	43	38	1.80	44	24	1.71

TABLE VII (continued)

Presidents			Deans			Humanities			Social Sciences			Science-Mathematics			Vocational-Technical			Continuing		
R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean	R	I	Mean
45.5	20	1.88	47.5	6	2.00	43	42	1.83	43	24	1.78	44	43	1.71	43	51	1.80	44	25	1.71
45.5	38	1.88	47.5	11	2.00	46	25	2.00	46.5	11	2.00	44	44	1.71	48	11	2.00	47.5	11	1.86
47.5	11	2.00	47.5	15	2.00	48.5	34	2.17	46.5	15	2.00	48	11	1.86	48	15	2.00	47.5	20	1.86
47.5	22	2.00	47.5	20	2.00	48.5	46	2.17	49	50	2.11	48	22	1.86	48	20	2.00	47.5	22	1.86
50	15	2.13	47.5	22	2.00	48.5	47	2.17	49	22	2.11	48	38	1.86	48	22	2.00	47.5	49	1.86
50	41	2.13	47.5	25	2.00	48.5	50	2.17	49	38	2.11	50	20	2.00	48	41	2.00	50	15	2.00
50	49	2.13	51	41	2.17	51	41	2.50	51	41	2.78	51	41	2.29	51	49	2.20	51	41	2.29

R = Rank.

I = Item.

TABLE VIII

PROBE III RESPONSES FOR TRANSFER

Item	Presidents				Deans				Humanities				Social Sciences				Science-Mathematics				Vocational-Technical				Continuing			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	8				6				5	1			9				7				5				6	1		
2	8				6				6				9				7				5				7			
3	8				5	1			4	1		1	7	2			7				5				7			
4	4	4			2	4			2	4			3	6			4	2	1		3	2			2	5		
5	3	5			3	3			2	4			2	7			3	4			4	1			4	3		
6	8				6				6				8	1			7				5				7			
7	7	1			6				5	1			8	1			6	1			5				7			
8	8				6				5	1			9				6	1			5				7			
9	8				6				6				9				7				5				7			
10	8				6				6				9				7				5				7			
11	1	7			1	5			1	5			2	6	1		3	4				5			2	5		
12	8				6				6				9				7				5				7			
13	7	1			5	1			5	1			8	1			7				5				7			
14	8				6				5	1			6	3			5	2			4	1			7			
15		8				6			2	4			2	6	1		1	6				5			2	5		
16	8				6				5	1			9				7				5				7			
17	8				6				6				9				7				5				7			
18	8				6				6				9				7				5				7			
19	8				6				6				9				7				5				7			
20	1	7			1	5			1	5			1	7	1		2	4	1			5			1	6		
21	8				6				4	1	1		7	2			7				5				7			
22	2	5	1		1	5			2	4			1	7	1		2	5				5			1	6		
23	8				6				6				8		1		7				5				7			
24	8				6				4	1		1	7	2			7				4				7			
25	8				6				3	2	1		6	3			7				5				7			
26	8				6				6				7	2			7				5				7			
27	8				6				5	1			8	1			7				5				7			

TABLE VIII (continued)

Item	Presidents				Deans				Humanities				Social Sciences				Science-Mathematics				Vocational Technical				Continuing			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
28	7	1			5	1			4	2			7	1	1		6	1			5				7			
29	8				6				6				9				7				4	1			7			
30	8				6				5		1		8	1			7				4	1			7			
31	8				6				5	1			8	1			6	1			5				7			
32	8				5	1			6				9				7				5				7			
33	7	1			4	2			5	1			7	2			3	4			4	1			7			
34		7	1			5	1		2	2	1	1	2	7			1	5	1		1	4				7		
35	8				6				5	1			7	2			6	1			4	1			7			
36	7	1			6				6				9				7				5				7			
37	2	6			2	4			3	3			4	5			2	5			1	4			4	3		
38		8			2	4			2	3	1		2	7			1	6				4			4	3		
39	2	6			3	3			2	4			3	4	2		1	6				4	1		2	5		
40	8				5	1			6				8	1			5	1	1		4	1			5	2		
41		3	5			2	4		1	1	3	1		1	5	3		1	6		1	1	3			1	5	1
42	8				6				4		1	1	7	2			5	2			4	1			6	1		
43	6	2			5	1			3	2	1		8	1			4	2		1	3	1	1		6	1		
44	7		1		5	1			4	2			6	3			5	1		1	3	1	1		6		1	
45	8				6				6				9				6	1			4	1			7			
46	8				5	1			2	2	1	1	6	2	1		5	1		1	4			1	7			
47	8				6				2	2	1	1	7	1		1	6			1	4			1	7			
48	8				6				6				9				7				4	1			7			
49		7	1		2	4			2	3	1		4	5			3	4			1	3			1	6		
50	6	1	1		6				3	1	1	1	6	3			6	1			3	1	1		7			
51	7	1			6				4		2		6	3			6	1			3	1		1	7			

TABLE IX

PROBE III RESPONSES FOR VOCATIONAL-TECHNICAL

Item	Presidents				Deans				Humanities				Social Sciences				Science-Mathematics				Vocational-Technical				Continuing			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	8				5	1			4	1	1		9				5	1	1		5				7			
2	8				6				5	1			9				7				5				7			
3	8				5	1			4	1		1	9				7				5				7			
4	6	2			5	1			4	2			6	3			6		1		4	1			5	2		
5	7	1			6				6				8	1			5	2			5				7			
6	8				6				3	3			7	2			7				5				7			
7	7	1			6				5	1			7	2			7				5				7			
8	8				4	2			6				7	2			6	1			4	1			7			
9	8				6				6				9				7				5				7			
10	8				6				6				9				7				5				7			
11	1	7			1	5			1	5			2	6	1		1	6				5			2	5		
12	8				6				6				9				7				5				7			
13	7	1			5	1			5	1			7	2			7				5				7			
14	7	1			4	2			4	2			7	2			5	2			5				7			
15		8				6			2	4			2	6	1		1	6				5			2	5		
16	8				6				5	1			9				7				5				7			
17	8				6				6				9				7				5				7			
18	8				6				6				9				7				5				7			
19	8				6				6				9				7				5				7			
20	1	7			1	5			1	5				8	1		1	5	1			5			1	6		
21	8				6				4	1	1		7	2			7				5				7			
22	2	5	1		2	4			3	3			1	7	1		1	6				5			1	6		
23	8				6				6				8		1		7				5				7			
24	8				6				4	2			7	2			7				4			1	7			
25	8				6				3	2	1		6	3			7				5				7			
26	8				6				6				7	2			7				5				7			
27	8				6				5	1			8	1			7				5				7			

TABLE IX (continued)

Item	Presidents				Deans				Humanities				Social Sciences				Science Mathematics				Vocational-Technical				Continuing			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
28	7	1			5	1			4	2			7	1	1		6	1			5				7			
29	8				6				6				9				7				5				7			
30	8				6				5		1		8	1			7				4	1			7			
31	8				6				5	1			8	1			6	1			5				7			
32	8				5	1			6				9				7				5				7			
33	7	1			4	2			4	2			8	1			4	3			4	1			7			
34	5	2	1		5	1			3	1	1	1	7	2			5	2			5				7			
35	7	1			6				5	1			7	2			6	1			4	1			7			
36	8				6				6				9				7				5				7			
37	2	6			1	5			3	3			4	5			2	5			1	4			4	3		
38	1	8			2	4			2	3	1		2	7			1	6			1	4			5	2		
39	8				6				6				9				6	1			1	4			7			
40	8				5	1			5	1			8	1			5	1			5				7			
41		7	1			5	1		2	3		1		5	1	3		5	2		1	3	1			6		1
42	8				6				4	1		1	7	2			5	2			4	1			6	1		
43	6	2			5	1			3	2	1		8	1			4	2		1	3	1	1		6	1		
44	7		1		5	1			4	2			6	3			5	1		1	3	1	1		6		1	
45	8				6				5	1			9				6	1			4				7			
46	8				5	1			2	2	1	1	6	2	1		5	1		1	4			1	7			
47	8				6				2	2	1	1	7	1		1	6			1	4			1	7			
48	8				6				6				9				7				4	1			7			
49		7	1		2	4			2	3	1		3	6			3	4			1	3		1	1	6		
50	6	1	1		4	2			2	2	1	1	5	3	1		6	1			3	1	1		7			
51	7	1			6				4	2			7	2			6	1			3	1		1	7			

TABLE X

PROBE III RESPONSES FOR CONTINUING

Item	Presidents				Deans				Humanities				Social Sciences				Science-Mathematics				Vocational-Technical				Continuing			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	2	6			1	5			2	4			3	6			3	4			3	2			4	3		
2	8				6				5	1			9				7				5				7			
3	8				5	1			4	1		1	7	2			7				5				7			
4	6	2			5	1			5	1			8	1			5	1	1		4	1			6	1		
5	2	6			1	5			3	3			2	7			3	4			4	1			4	3		
6	5	3				6			4	2			2	7			5	2			4	1			5	2		
7	2	6			1	5			4	2			3	5	1		4	3			2	3			2	5		
8	7	1			4	2			6				7	2			6	1			4	1			6	1		
9	8				6				6				9				7				5				7			
10	8				6				6				9				7				5				6	1		
11		8				6			1	4	1		2	5	2		1	6				6			1	6		
12	7	1			6				6				8	1			7				5				6	1		
13	7	1			5	1			5	1			7	2			7				5				7			
14	2	6			2	4			4	2			2	7			3	4			5				4	3		
15			7	1		6			2	4			1	7	1		2	6				5			1	6		
16	8				6				5	1			9				7				5				7			
17	8				6				6				9				7				5				7			
18	8				6				6				9				7				5				7			
19	8				6				6				9				7				5				7			
20	1	7				6			1	5				8	1		1	5	1			5			1	6		
21	8				6				4	1	1		7	2			7				5				7			
22	2	4	2			6			3	3				8	1		1	6				5			1	6		
23	8				6				6				8		1		7				5				7			
24	3	5			1	5			3	2		1	4	4		1	6	1			4			1	2	5		
25	3	5				6			2	2	2		3	6			3	3	1		3	2			2	5		
26	8				6				6				7	2			7				5				7			
27	8				6				5				1				8	1			5				7			

TABLE X (continued)

Item	Presidents				Deans				Humanities				Social Sciences				Science-Mathematics				Vocational-Technical				Continuing			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
28	7	1			5	1			4	2			7	1	1		6	1			5				7			
29	8				6				6				9				7				5				7			
30	7	1			6				5		1		8	1			7				4	1			7			
31	8				6				5	1			8	1			6	1			5				7			
32	8				5	1			6				9				7				5				7			
33	7	1			4	2			4	2			7	2			3	4			3	1			7			
34	5	2	1		4	2			2	2	1	1	6	2		1	3	3	1		5				6	1		
35	5	3			1	5			4	2			3	6			3	3	1		2	2	1		5	2		
36	8				5	1			6				9				7				5				7			
37	2	6			1	5			4	2			4	5			2	5			1	4			4	3		
38	1	8			2	4			2	3	1		2	5	1	1	1	6			1	4			4	3		
39	8				6				5	1			7	2			6	1			1	4			7			
40	8				5	1			5	1			8	1			5	1	1		5				5	2		
41		7	1			5	1		1	3		2		5	1	3		5	2		1	3	1			6		1
42	8				6				4		1	1	7	2			5	2			4	1			6	1		
43	6	2			4	2			3	2	1		8	1			4	2		1	3	1	1		6		1	
44	7		1		4	2			4	2			6	3			4	2		1	3	1	1		6		1	
45	8		6		6				5	1			9				6	1			4	1			7			
46	8				5	1			2	2	1	1	6	2	1		5	1		1	4			1	7			
47	8				5	1			2	2	1	1	7	1		1	6			1	4			1	7			
48	8				6				6				9				7				4	1			7			
49		7	1		2	4			3	2	1		3	6			3	4			1	3		1	1	6		
50	6	1	1		4	2			2	2	1	1	5	4			6	1			3	1	1		7			
51	6	2			5	1			3	2	1		5	4			6	1			3	1		1	7			

APPENDIX S

POSSIBLE INTERGROUP COMPARISONS FOR T TESTS

TWENTY-ONE POSSIBLE INTERGROUP COMPARISONS

FOR T TESTS

1. Presidents/deans
2. Deans/humanities
3. Humanities/social sciences
4. Social sciences/science-mathematics
5. Science-mathematics/vocational-technical
6. Vocational-technical/continuing
7. Presidents/humanities
8. Deans/social sciences
9. Humanities/science-mathematics
10. Social sciences/vocational-technical
11. Science-mathematics/continuing
12. Presidents/social sciences
13. Deans/science-mathematics
14. Humanities/vocational-technical
15. Social sciences/continuing
16. Presidents/science-mathematics
17. Deans/vocational-technical
18. Humanities/continuing
19. Presidents/vocational-technical
20. Deans/continuing
21. Presidents/continuing

VITA

Donald Gordon Rhodes was born September 24, 1937 in Puryear, Tennessee. His elementary education was accomplished in the schools of Henry County, Tennessee, and Wayne County, Michigan. He was graduated from Puryear High School in May, 1955. He entered Lambuth College, Jackson, Tennessee, in September of that same year and was granted the Bachelor of Arts degree from Lambuth in June, 1959.

His teaching career commenced August, 1960, in Memphis, Tennessee. After nine years in secondary science and biology, he wrote and taught a sixth grade science series for instructional television. Beginning in the summer of 1964, he entered graduate study in Educational Administration and Supervision at Murray State University, Murray, Kentucky, and was awarded the Master of Arts degree from there in August, 1966. He began advanced graduate work with the University of Tennessee—Memphis State University Center in Memphis in June of 1967. He completed his residency at the University of Tennessee Knoxville campus in June 1971.

Since 1971 he has been a Co-principal for Curriculum and Instruction with the Knox County, Tennessee, schools. He is currently Principal of Farragut Middle School in that same system and holds membership in numerous professional organizations including the American Association of School Administrators, Phi Delta Kappa, and Phi Kappa Phi. He received the Doctor of Education degree in August, 1976, from the University of Tennessee with a major in curriculum and instruction.

He is married to the former LaNoka Overstreet of Paducah, Kentucky, an elementary teacher who served as Area Specialist in Elementary Achievement Emphasis for the Memphis City Schools and who is presently engaged as Coordinator of Elementary Supervision for Knox County Schools. The Rhodes have one son, Grant, who is four years old.