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ABSTRACT

During 1977-78, North Central Technical College (NCTC) initiated a comprehensive planning system incorporating diagnostic analyses of both the professional development needs of individual faculty members and the long-term needs of the institution as a whole. The faculty needs analysis was facilitated through an Instructional Development and Effectiveness Assessment System designed to diagnose problems in ten areas relating to instructional methodology and techniques. The data obtained from this analysis, as well as from guest speakers and a library of professional materials, were used in the creation of individual development plans for each faculty members. Administrator effectiveness was similarly diagnosed through a series of evaluation activities for departmental chairmen. The institutional needs analysis was effected by a Planning, Management, and Evaluation system, using ad hoc committees to clarify goals in the areas of program flexibility, student retention, student advising, instructional development, and staff workload and remuneration. Specific dollar amounts for these goals were assigned, and timetables for their implementation and evaluation were established. Though more work needs to be done on developing satisfactory performance standards for the array of services provided by a college, NCTC's diagnostic system is a first step in keeping up with changing educational needs. (JP)

HUMAN RESOURCE DEVELOPMENT IN TECHNICAL EDUCATION THROUGH A COMPREHENSIVE DIAGNOSTIC AND DEVELOPMENT SYSTEM

by

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I. INTRODUCTION

> When Robert Louis Stevenson was a boy, he sat by the window at dusk one evening quietly watching the lamplighter as he walked by his house touching the gas wick to the gaslights on his street. His mother, concerned over the long period of silence, asked young Robert what he was doing. He replied, "I am watching the man punch holes in the darkness."

* * * * * * * * * * * *

Purposeful human activity proceeds from a rational frame of reference, a somewhat clear perception of the ultimate goals toward which a person strives or the societal "ends" to which an organization can be dedicated. Many, perhaps most, individuals and organizations, however, define their ultimate goals casually. Explanation tends to follow fact and is more often a journal entry than a blueprint or a grand design representing intelligent anticipation of activities and events planned carefully in advance to move from one point to another. Individuals and institutions alike need a comprehensive diagnostic (needs assessment) - developmental system to keep growing and remain viable. It would appear incontrovertible that maximum syngerism is achieved when individual diagnostic/developmental systems are in harmony and synchronization with the organizational diagnostic/developmental system, both of which consider societal forces and revolutions.

Keppel, Rockefeller, Gould, Cross, Wirtz, and Bellow describe a number of societal forces and revolutions. Frances Keppel, former United States Assistant Secretary of Health, Education, and Welfare states:

> The first revolution in American education was a revolution in quantity. Everyone was to be provided the chance for an education of some sort. That revolution is almost won in the schools, and is on its way in higher education. The second revolution is equality of opportunity. That revolution is under way. The next turn of the wheel must be a revolution in quality.[1]

John D. Rockefeller, III, calls for a "humanistic revolution" through a person-centered society to promote humanity and idealism in all Americans.[2] Samuel B.

Gould calls for learning as a continuous process:[3]

> ...Full opportunity to learn cannot be limited to the young; it must be for everyone, in any walk of life, for whatever purposes are beneficial. It cannot be reserved to a single period of life; it must be a recurrent opportunity; an opportunity to update a skill, to broaden the possibilities of a career whether old or new, or to add intellectual zest and cultural enrichment throughout life. No longer can it be a single opportunity for a lifetime.

K. Patricia Cross suggests that society must shift from the 20th century goal of "education for all" to the 21st century goal of "education for each."[4] Willard Wirtz indicates that we are in a revolution which is linking more closely the world of work with the world of education, a process of integrating the "learning to do" system with the "doing to learn" system.[5,6] Saul Bellow, in Mr. Sammler's Planet cautions:[7]

> It has only been in the last two centuries that the majority of people in civilized countries have claimed the privilege of being individuals. Formerly they were slave, peasant, laborer, even artisan, but not person. It is clear that this revolution, a triumph for justice in many ways...has also introduced new kinds of grief and misery, and so far, on the broadest cale, it has not been altogether a success.

This paper describes a comprehensive diagnostic-developmental model that attempts to focus on individuals and the organization. It is based on assumptions such as (1) administrators and faculty, like other mature human beings, continue to grow; (2) individuals are the most important educational resource of an organization; (3) talents and skills of individuals within the organization must be cultivated systematically; (4) teaching is the primary, though by no means the only, professional activity of most faculty; and (5) preparation for teaching and management has been slighted by academic tradition, a pervading lack of preparation about how to facilitate the learning process or how to function in an instructional support role.[8]

The latter assumption deserves additional clarification. Preprofessional preparation and professional continuing education is an extraordinarily complex

task today. The societal revolution of equal educational opportunity has accessed to higher education a wider range of human variability today than at any other time in history. This range will increase in the years ahead as some of the 40 million Americans pursue a career transition,[9] states send professionals back to the classroom,[10] colleges specify an agenda to respond to lifelong learning needs during adulthood,[11] and institutions begin to fill the missing link of connecting adult learners to learning resources.[12] Most faculty, however, were graduated from undergraduate and graduate programs which focused on service delivery as opposed to educator roles. These programs tended to concentrate on competence in relationship to performance of a role other than learning facilitator. These programs dealt minimally, if at all, with curriculum content formats, packaging formats, or learning outcomes evaluation formats. Nor did they concentrate on stages of adult development and distinctions between pedagogical and andragogical principles. Just as it is important for elementary school teachers to understand principles of human growth and development for the relatively homogeneous populations they serve, so too is it important for the professional educators in the postsecondary arena to understand human growth and development for the increasingly heterogeneous populations they serve. Perhaps more important is the need for institutional leadership to understand something about the stages of adult development of the "spirited" professionals within our colleges.[13]

The diagnostic - developmental model described in the paragraphs that follow is an attempt at helping faculty and administrators to understand themselves in the formation and revision of their professional goals as it relates to their instructional role in a postsecondary context. The individual diagnostic - developmental subsystem is related to the institutional diagnostic - developmental subsystem as a means for mediating perceived or real conflict with the college. At the very least, it is an attempt to "punch holes in the darkness" in one missing link.

II. THE INDIVIDUAL DIAGNOSTIC/DEVELOPMENTAL SYSTEM

Instructional Effectiveness Diagnosis

Several needs analysis instruments were examined in 1976-77 for possible use in improving instructional effectiveness at North Central Technical College.* It was decided to use the Instructional Development and Effectiveness Assessment (IDEA) system developed by the Center for Faculty Evaluation and Development in Higher Education, Kansas State University.# The decision to use IDEA was made by the faculty and academic administration after an intensive examination of several instruments and of a visit to the campus by Dr. William E. Cashin, Education Development Specialist at the Center, on June 9, 1977.

The IDEA system was administered Fall and Winter quarters during 1977-78. Individual faculty members received diagnostic data relative to their instructional effectiveness. Faculty and administration received aggregate diagnostic data about instructional effectiveness. The following ten areas relating to instructional methods and techniques identified as needing improving were as follows.

1. Questioning techniques.
2. Development of applications and implications of subject matter.
3. Development of alternative teaching styles related to differences in both content and student composition.
4. Approaches to planning and organizing course materials related to objectives.
5. Review of the "learning process" including recognized approaches to reinforcement and retention.

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* Appendix A is a description of the North Central Technical College context.

\# Appendix B is a brief overview of IDEA, Instructions for Faculty Participation, and a Survey Form.

6. Practical approaches to lecture delivery.

7. Development and appropriate use of audio-visual materials.

8. Encouraging student-instructor interaction listening skills.

9. Methods for relating subject matter to field, jobs, processes.

10. Development of course and instructional objectives.

On May 31, 1978, selected students and faculty in nursing, electronics, law-enforcement, mental health, and secretarial technologies participated in a pilot study in three technical colleges in the state of Ohio. The Learning Styles Inventory was administered to determine those affective variables that seem to effect learning. In addition, selected individuals examined the Grasha-Riechmann Student Learning Styles questionnaire.

These data were reviewed by an Ad Hoc Committee on Instructional Development comprised of one representative from business, engineering, health, and public service/general studies technologies. The Committee developed recommendations for developmental programs for 1978-79. These recommendations dealt with (1) maintaining competence in content, (2) encouraging faculty to experiment with alternative teaching methods, and (3) obtaining information about stages of adult growth and development. Faculty evaluation of IDEA was positive. Faculty supported the use of IDEA during 1978-79 and agreed to participate in a research project to develop a student rating form more appropriate for technical courses in Fall 1978.

Instructional Development

Throughout 1977-78 materials were distributed to faculty about styles of teaching,[14] styles of learning,[15] stages of adult development,[16] and information about the mix of cognitive and manipulative skills for technological occupations-those occupations requiring education and training beyond high school but not to the level of the baccalaureate degree.[17] *

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* Appendix C contains charts about stages of adult development and the mix cognitive and manipulative skills for technological occupations.

On September 18, 1978, Dr. Malcolm S. Knowles, presented information on (1) the distinction between teacher-directed (pedagogical) learning and self-directed (andragogical) learning and (2) guidelines for contract learning.# Dr. Knowles made a presentation and interacted in a large group session for one hour followed by one hour of interaction with each of the four technology divisions.

A library of professional materials was developed. The library included books and non-book materials about the above-named topics. Nine sets of Performance-Based Teacher Education modules relating to instructional planning, instructional execution, and instructional evaluation were purchased, one set for the library and two sets for each division. The PBTE modules were developed by The National Center for Research in Vocational Education at the Ohio State University.

From the diagnostic data obtained from activities listed in the previous section, individual development plans were specified. Each technology division adopted variations of an "Individual Performance Agreement". The IPA is a joint goal-setting activity between a faculty member and supervisor. Individual goals in instruction and professional development are set as a result of interpretation of diagnostic data. For each goal a sheet is completed stating the goal and specific criteria for assessing goal attainment.%

To assist faculty improve instructional effectiveness, mini grants are available up to $300.00. The grants can be used to develop instructional materials, develop new courses/programs, interdisciplinary program development, guest lecturer honorarium, and cooperative program development with agencies external to NCTC. The Ad Hoc Committee on Instructional Development reviews requests for mini grants and makes recommendations to the Vice President for Academic Affairs.

Appendix D contains information on pedagogical/andragogical learning and contract learning.

% Appendix E is a format for an "Individual Performance Agreement".

Administration Effectiveness Diagnosis

The companion to LDEA is the Departmental Evaluation of Chairperson Activities.* DECA attempts to (1) assess the chairperson's effectiveness in accomplishing departmental activities, (2) identify discrepancies, where they may exist, between the chairperson's ratings and his or her departmental colleague ratings, and (3) identify strengths and weaknesses in administrative techniques and style which are related to faculty perception on specified administrative activities. DECA was administered for divisional chairpersons in Spring 1978.

Administration Development

In addition to regular administrator development activities, the divisional directors in business, engineering, and public service/general studies technologies participated in a three day Competency-Based Staff Development Workshop on August 22-24, 1978. The workshop presented a review of the literature concerning personnel development needs of post-secondary vocational-technical teachers and helped participants develop a competency-based staff development program for their institution.

The competency-based staff development plan specified by the same three divisional directors became the scope of work in an Administrative Development Fellowship Program. ADFP features include (1) work on a project jointly defined by each Fellow and his/her dean, (2) a series of eight topically oriented workshops and a concluding three-day statewide conference, and (3) two to three days of on-campus workshops in administrative development for fellow chairpersons.

Divisional directors also participated in the Ohio Board of Regents Lifelong Series (1) "Information Services for Adults" - October 10, 1978, (2) "Implementing Experiential Learning Programs" - October 24, 1978, and (3) "Planning for Occupational/Professional Certification" - November 1, 1978. In addition, four curriculum coordinators participated in a Competency-Based Staff Development Workshop, December 18-20, 1978.

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* Appendix F is a DECA Survey Form

III. THE INSTITUTIONAL DIAGNOSTIC/DEVELOPMENT SYSTEM

In Fall 1977, North Central Technical College made a commitment to comprehensive institutional planning - academic, student services, physical plant, and fiscal resources. This commitment was recommended as a result of discussions at a President's Cabinet Workshop on November 7, discussions at a Faculty Study Day on December 6, and discussions with the Board of Trustees on December 21, 1977. Ad Hoc Committees were established on (1) Program Flexibility, (2) Student Retention, (3) Student Advising System, (4) Instructional Development, and (5) Load and Reward Structure. Committees were comprised of one representative each from Business, Engineering, Health, and Public Service Technologies and two representatives from student services staff; the Vice Presidents for Academic Affairs and Student Services served ex officio. Each person brought to the committee fuzzy images of alternative scenarios of the future as it relates to each topical area. The collegial problem solving approach included the steps of (1) problem clarification, (2) data gathering, (3) data analysis, (4) drawing conclusions, and (5) making recommendations.

In Spring 1978, each unit within the college stated goals and objectives and related non-personnel dollars to them. A taxonomy was developed for stating goals and objectives. Categories for goals and objectives included (1) curriculum, (2) professional growth, (3) departmental function, (4) communications and office management, (5) community service, (6) advisory committees and (7) grantsmanship. Each aggregate goal category was refined into disaggregate categories for specific objectives. For example, curriculum was subdivided into (a) content, (b) teaching methods, (c) testing methods, (d) setting minimum competency standards, (e) developing continuing education programs, and (f) conversion to the metric system. The aggregate category on professional growth included the above named categories

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* Appendix G is a list of committee functions

plus (a) stages of adult and career development and (b) advising and counseling students. Units assigned dollars to goals and objectives through one of three types of budgets - maintenance (same as last year), skeletal (decrements of 1% to 90% of maintenance), and expansion. The volume of goals and objectives and budget requests was reviewed by a College Budget Committee comprised of twelve representatives from units within the college and chaired by the Vice President for Business and Finance.

The deliberations of the Ad Hoc Committees described in the first paragraph and the planning/goal setting activities described in the second paragraph complemented each other in a synergistic way. Fuzzy images of the future yielded to a course of action in terms of more specific goals and objectives spread across a time-frame and to which dollars were assigned. The process was fed through participation in a number of human resource professional development activities and events both on and off campus. These activities and events included (1) participation in the American Council on Testing National Seminars on College Student Retention and Academic Advising; (2) use of instructional diagnostic tools such as, Instructional Development and Effectiveness Assessment; (3) workshops on cognitive style mapping and learning styles inventory; (4) study of materials about stages of adult development and a workshop on andragogy and contract learning; (5) extensive use of Performance Based Teacher Education Modules; and (6) instructor and supervisor training through Competency-Based Staff Development Workshops.

Because alternative institutional scenarios are based upon perceptions of factual through impressionistic data, the college launched a project to specify assumptions in which to base future planning. Throughout the Fall of 1978, persons within the college community specified planning assumptions under ten aggregate categories: (1) societal context, (2) external agencies, (3) institutional leadership/management, (4) existing and potential programs, (5) potential clientele and enrollment, (6) student services, (7) staffing and professional development,

(8) physical plant, (9) equipment, and (10) fiscal resources. From the deliberations of the discussions about assumptions arose a set of institutional goals. The participants progressed through a process of divergent production, moving from ten to thirteen to fifteen aggregate goals, followed by convergent production, ultimately recommending seven aggregate categories of goals: (1) mission attainment; (2) functional relationships - articulation with secondary and higher education, business and industry, other agencies; (3) qualitative improvements in academic programs, student services, and institutional management; (4) programs in relation to educational needs based on market analysis and penetration of potential markets; (5) professional development of faculty, staff, and administration; (6) communications with the college's publics, and (7) pursuit of alternative funding sources.*

The institutional diagnostic/development system is a Planning, Management, and Evaluation (PME) system. Management refers to directing and coordinating activities and events specified in the planning process. Evaluation is the process of "assessing the actual performance of the institution, as weighed against the intended outcomes and measureable objectives." The PME concept is displayed in FIGURE 1. That which is planned for during one fiscal year will be managed during the next fiscal year. If an institution improves its planning-budgeting process in Year 1, a formative evaluation occurs that same year followed by a summative evaluation sometime later. Because of changes made in the planning-budgeting process in Year 1, an institution can improve its managing-budgeting process in Year 2. A formative evaluation of the managing-budgeting process will be made during that year followed by a summative evaluation made sometime later. The PME system holds the potential for keeping North Central Technical College a viable institution.[18]

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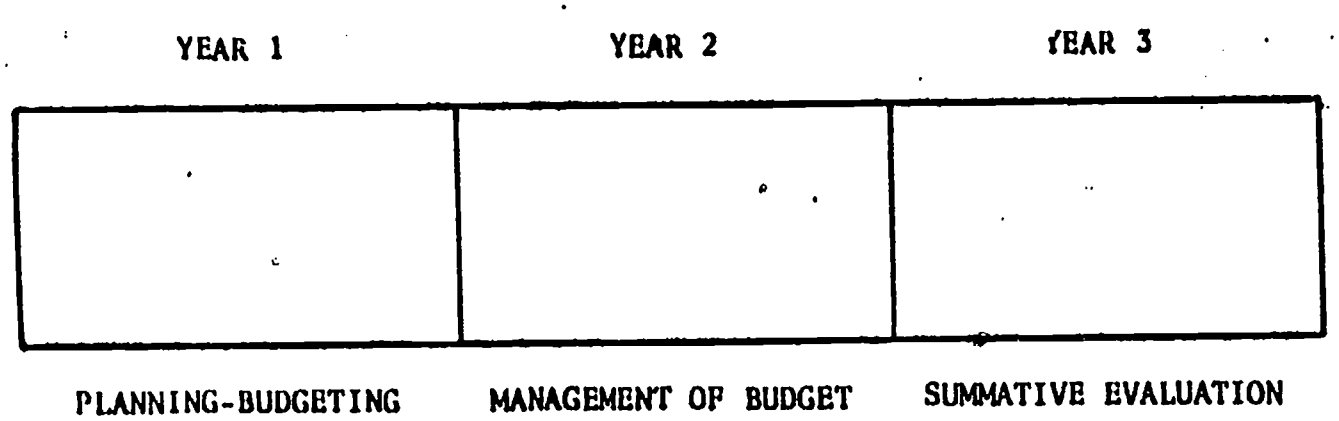
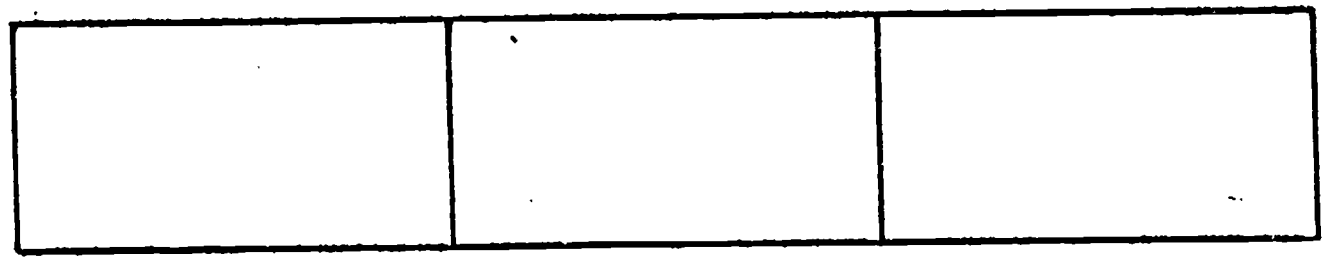
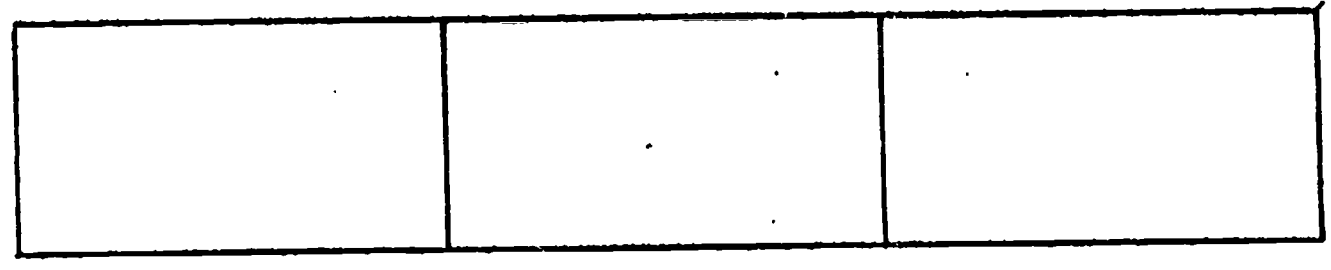
* Appendix H is a list of meetings relating to planning assumptions and institutional goals.

FIGURE I THE PLANNING, MANAGEMENT, EVALUATION CONCEPT







IV. CONCLUSION: THE UNFINISHED AGENDA

The future of any institution rests on the degree to which it meets the needs of the society in which it exists. As society changes, so must higher education. If higher education is to remain a viable institution, it must be responsive to the needs of society in a dynamic context. The viable institution is constantly developing new programs in order to be responsive to the changing needs of its clientele. These programs are new in content formats, packaging or delivery system formats, competency evaluation formats, and clientele support services such as career life planning. Just as higher education in today's society must have a dynamic diagnostic needs assessment and developmental planning process in order to remain a viable institution, persons within the organization must have a diagnostic-developmental system or professional renewal system to remain viable.

A number of tasks remain unfinished. Several model individual development systems are available for review.* The model described in this paper links individual development with comprehensive, institutional, academic planning. There is little empirical evidence, however, to deal with a question such as "To what extent is quality a function of a participatory mode of institutional planning and management"? Also, it remains a major difficulty to develop a satisfactory definition of performance standards for the full array of academic service and link it to the institution's system of rewards. Part of this problem is related to the absence of empirical research that demonstrates that major improvements traceable to behavioral change in the learning environment impact on quality education. K. Patricia Cross suggests that society must shift from the 20th century goal of "education for all" to the 21st century goal of "education for each". She cautions,

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* Individual growth models have been developed at Gordon College, William Jewell College, College of the Mainland, Union College, and New College of the University of Alabama.

"a 21st century goal of maximizing the impact of education on individuals is infinitely more complex and more demanding than our 20th century goal of providing access for all...." Hunter and McCants stated the issue as follows:[18]

> ...dissonance within the teaching/learning interaction, like electrical resistance, lowers the efficiency of learning and eventually lowers the probability of student achievement. Certainly if instruction is designed to produce learning, educators will need to find ways to improve the match between the way instruction is delivered and the preferences of its clients. ...multiple path instruction must be developed with full recognition of the learners' identified cognitive and noncognitive factors.

Cognitive style mapping and learning styles inventory tools which focus on clients are in the early stages of development. IDEA and other diagnostic tools are useful tools in assessing teaching performance. PBTE modules and other packages are useful as developmental tools. There is little data, however, which supports the assumption that teaching skill training alone induces performance change. Knowles is probably right in that the challenge for postsecondary education is one of "a continued shift away from the knowledge and skill transmission model which we borrowed from traditional schooling toward a competency-development model."[19]

Whatever our course of action to improve instructional effectiveness, Machiavelli's words of caution seem most appropriate:

> There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success than to take the lead in the introduction of a new order of things, because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new.
>
> ...The Prince.

FOOTNOTES

1. The Necessary Revolution in American Education (New York: Harper and Row, Publishers, 1966), p. 3.

2. The Second American Revolution (New York: Harper and Row, Publishers, 1973).

3. Diversity By Design (San Francisco: Jossey-Bass, 1973).

4. Accent on Learning (San Francisco: Jossey-Bass, 1976).

5. The Boundless Resource (New York: E. P. Dutton, 1976).

6. Relating Work to Education.

7. Time, February 9, 1970, p. 83.

8. See Cathy Henderson and Janet C. Plummer, Adapting to Changes in the Characteristics of College-Age Youth (Washington, D.C.: American Council on Education, 1978).

   Influencial factors in determining "Why Adults Are Pursuing A Part-Time College Education" could be classified as "inner-directed" rather than "other-directed." "For example, at the top of the list were such concerns as professional growth, long-range economic security, self-esteem and increased salary consideration. Lower down in importance were social, family, peer and reference group influences." Ralph Gallay and Ronald V. Hunter, Collegiate News and Views, Winter, 1978-79, pp. 13-16.

9. Solomon Arbeiter, et. al., 40 Million Americans in Career Transition (New York: The College Board, Future Directions for a Learning Society, 1978).

10. Beverly T. Watkins, "States Sending Professionals Back to the Classroom," The New York Times, September 11, 1977, p. 3.

11. Lifelong Learning During Adulthood (New York: The College Board, Future Directions for a Learning Society, 1978).

12. K. Patricia Cross, The Missing Link: Connecting Adult Learners to Learning Resources (New York: The College Board, Future Directions for a Learning Society, 1978).

13. Harold L. Hodgkinson, "Adult Development: Implications for Faculty and Administrators", Educational Record (Fall 1974), pp. 263-274.

14. Richard Mann, The College Classroom: Conflict, Change and Learning, pp. 144-223.

15. Tory Grasha and Sheryl Riechmann, American Psychologist 27 (1972) pp. 144-147 and The Journal of Psychology 87 (1974) pp. 213-223.

16. Hodgkinson, Op. cit. Vivian Rogers McCoy, Lifelong Learning: The Adult Years, Adult Education Association of the United States of American, October 1977. Vivian Rogers McCoy, Colleen Ryan, and James W. Lichtenberg, The Adult Life Cycle (Lawrence, Kansas: Adult Life Resources Center, 1978. Edmund J. Gleaser, Jr., "Education for Teachable Moments", Community and Junior College Journal, May 1978, pp. 12-17.

17. Norman C. Harris and John F. Grede, Career Education in Colleges (San Francisco: Jossey-Bass Publishers, 1977). pp. 54 and 138.

18. Gerald L. McManis and L. James Harvey, Planning, Management, and Evaluation Systems in Higher Education, Littleton, Colorado: Ireland Educational Corporation, 1978), p. 6.

19. Walter E. Hunter and Louise S. McCounts, The New Generation Gap: Involvement vs Instant Information (Los Angeles, Calif.: ERIC Clearinghouse for Junior Colleges, 1977), pp. 14 and 16.

20. Malcolm S. Knowles, "Gearing Up for the Eighties, "Training and Development Journal (Washington: American Society for Training and Development) July, 1978, pp. 12-14.

APPENDIX A

THE NORTH CENTRAL TECHNICAL COLLEGE CONTEXT

A. Historical Overview

In 1961, the Mansfield Board of Education created the Mansfield School of Technology, a two-year, post high school diploma granting school to provide students with career skills for employment in the Mansfield area. The school was approved by and operated under the standards of the State Department of Education, Division of Vocational Education, and Mansfield Board of Education. Mansfield School of Technology opened its doors in September, 1961, offering two programs--Electrical Engineering and Mechanical Engineering Technology. From 1961 through 1968, enrollment grew from 26 to 157 students. The school continued under the Mansfield Board of Education through 1968.

Chapter 3333.14 of the Ohio Revised Code, passed in 1968, stated that all technical schools must be chartered by the Ohio Board of Regents which would have jurisdiction over all state, public, post-secondary institutions. This legislation caused the creation of a Technical College district to include Ashland, Crawford, and Richland counties. Mansfield School of Technology became North Central Technical College (NCTC), was so chartered in 1969 by the Ohio Board of Regents, and was certified by the Secretary of State on May 16, 1969 as an institution of higher education. The Board of Trustees was formed in accordance with the Ohio Revised Code. College offerings grew to include programs in Computer Programming, Secretarial Science, and Law Enforcement. Enrollment grew to number 306 students, an increase of 95 percent.

Concurrent with the establishment of the Technical College District and NCTC, the Ohio State University and the Ohio Board of Regents were planning a cooperative venture by making technical education available on a university branch campus in order to realize greater utilization of one set of physical plants and services, and to offer students greater availability of cultural events and extra-curricular opportunities. A cost-sharing arrangement between NCTC and The Ohio State University was developed to realize these goals. A building design was formulated to provide laboratories, storage facilities, and faculty offices. On September 14, 1970, the Technical Education Building was ready for occupancy; Enrollment grew to 422 students.

Between 1970 and 1974, the College added programs in Accounting, Electrical Engineering, Environmental Protection Technology, Industrial Sales and Marketing, Drafting and Design, Nursing (R.N.), and Radiological Technology. The College began offering evening division courses in September 1971. Since that time, the evening division has become an integral part of the College offering a parallel program resulting in a degree. By Fall Quarter, 1974, enrollment was 1,020 students. Evening division enrollment for the Fall of 1974 was 378 students, 37% of the total College enrollment.

In 1975, the College undertook a Self-Study for accreditation from th North Central Association of Colleges and Secondary Schools which led to the award of Unconditional Accreditation for five years commencing on March 27, 1976.

B. Curriculum

NCTC offers the Associate in Applied Science Degree in

Drafting and Design Technology
Electronic Engineering Technology
Industrial Management Technology

Law Enforcement Technology
Mechanical Engineering Technology
Mental Health and Retardation Technology
Nursing Technology
Radiological Technology
Recreation Supervision
Risk-Safety Management Technology

The Associate of Applied Business Degree is awarded in the following programs:

Accounting Technology
Computer Programming Technology
Retail Sales & Marketing Technology
Secretarial Science Technology

The two-year postsecondary instructional programs are directed toward the practical application of knowledge. The technologies are broad in scope rather than specifically oriented toward a particular occupation. For example, students in the Electronic Engineering Technology are trained in various fields of electronics rather than a particular area such as radio-TV repair.

In addition, a one year certificate program is available in Practical Nursing and Respiratory Therapy Technology.

As a state supported institution, NCTC operates under the standards established by the state agencies which provide most of its financial support, the Ohio Board of Regents and the State Board of Education. The Ohio Board of Regents requirements are as follows: (1) 22 quarter credit hours of general courses (2) 22 quarter credit hours of basic courses, and (3) 45 Quarter credit hours of technical courses. State Board of Education requirements are as follows: (1) 530 clock hours of communications and leadership subjects, (2) 247 clock hours of basic laboratory experience, (3) 825 clock hours of technical subjects, and (4) 248 clock hours distributed according to the needs of the technology.

Program Advisory Committees, comprised of persons working in the technology or familiar with it, review curriculum and provide advice with regard to instructional materials and equipment.

IDEA SURVEY FORM -- STUDENT REACTIONS TO INSTRUCTION AND COURSES

Your thoughtful answers to these questions will provide helpful information to your instructor.

--Describe the frequency of your instructor's teaching procedures, using the following code:

1 - Hardly Ever 2 - Occasionally 3 - Sometimes 4 - Frequently
5 - Almost Always

The Instructor:

1. Promoted teacher-student discussion (as opposed to mere responses to questions).
2. Found ways to help students answer their own questions.
3. Encouraged students to express themselves freely and openly.
4. Seemed enthusiastic about the subject matter.
5. Changed approaches to meet new situations.
6. Gave examinations which stressed unnecessary memorization.
7. Spoke with expressiveness and variety in tone of voice.
8. Demonstrated the importance and significance of the subject matter.
9. Made presentations which were dry and dull.
10. Made it clear how each topic fit into the course.
11. Explained the reasons for criticisms of students' academic performance.
12. Gave examination questions which were unclear.
13. Encouraged student comments even when they turned out to be incorrect or irrelevant.
14. Summarized material in a manner which aided retention.
15. Stimulated students to intellectual effort beyond that required by most courses.
16. Clearly stated the objectives of the course.
17. Explained course material clearly, and explanations were to the point.
18. Related course material to real life situations.
19. Gave examination questions which were unreasonably detailed (picky).
20. Introduced stimulating ideas about the subject.

--On each of the objectives listed below, rate the progress you have made in this course compared with that made in other courses you have taken at this college or university. In this course my progress was:

1 - Low (lowest 10 percent of courses I have taken here)
2 - Low Average (next 20 percent of courses)
3 - Average (middle 40 percent of courses)
4 - High Average (next 20 percent of courses)
5 - High (highest 10 percent of courses)

Progress on:

21. Gaining factual knowledge (terminology, classifications, methods, trends)
22. Learning fundamental principles, generalizations, or theories.
23. Learning to apply course material to improve rational thinking, problem-solving and decision making.
24. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course.
25. Learning how professionals in this field go about the process of gaining new knowledge.

26. Developing creative capacities.
27. Developing a sense of personal responsibility (self-reliance, self-discipline).
28. Gaining a broader understanding and appreciation of intellectual-cultural activity (music, science, literature, etc.)
29. Developing skill in expressing myself orally or in writing.
30. Discovering the implications of the course material for understanding myself (interests, talents, values, etc.)

--On the next four questions, compare this course with others you have taken at this institution, using the following code:

1 - Much Less than Most Courses
2 - Less than Most
3 - About Average
4 - More than Most
5 - Much More than Most

The Course:

31. Amount of reading
32. Amount of work in other (non-reading) assignments
33. Difficulty of subject matter
34. Degree to which the course hung together (various topics and class activities were related to each other)

--Describe your attitudes toward and behavior in this course, using the following code:

1 - Definitely False
2 - More False Than True
3 - In Between
4 - More True than False
5 - Definitely True

Self-rating:

35. I worked harder on this course than on most courses I have taken.
36. I had a strong desire to take this course.
37. I would like to take another course from this instructor.
38. As a result of taking this course, I have more positive feelings toward this field of study.
39. I have given thoughtful consideration to the questions on this form.

--Describe your status on the following by blackening the appropriate space on the Response Card.

A. To which sex-age group do you belong?

1 - Female, under 25
2 - Male, under 25
3 - Female, 25 or over
4 - Male, 25 or over

B. Do you consider yourself to be a full-time or a part-time student?

1 - Full-time
2 - Part-time

C. Counting the present term, for how many terms have you attended this college or university?

1 - 1 term
2 - 2 or 3
3 - 4 or 5
4 - 6 or more

D. What grade do you expect to receive in this course?

1 - A
2 - B
3 - C
4 - D or F
5 - Other

E. What is your classification?

1 - Freshman
2 - Sophomore
3 - Junior or Senior
4 - Graduate
5 - Other

F. For how many courses have you filled out this form during the present term?

1 - This is the first course
2 - 2 or 3 courses
3 - 4 or more courses

G. How well did the questions on this form permit you to describe your impressions of this instructor and course?

1 - Very well
2 - Quite well
3 - Not very well
4 - Poorly

If your instructor has extra questions, answer them in the space designated on the Response Card.

Your comments are invited on how the instructor might improve this course or teaching procedures. Use the back of the Response Card (unless otherwise directed).

DECA SURVEY FORM--FACULTY REACTIONS TO CHAIRPERSON ACTIVITIES

Department _____ Institution _____

• The list below describes 15 responsibilities which some department chairpersons/heads pursue. In Column 1, circle the number corresponding to your judgment of how important each of these should be for your chairperson/head using the following code:

1 — Not Important
2 — Only So-So
3 — Fairly Important
4 — Quite Important
5 — Essential

• Use Column 2 to describe how effectively you feel your department chairperson/head fulfilled each responsibility during the past 12 months. Omit any item if you feel you cannot make a valid judgment; otherwise circle the number best corresponding to your estimate:

1 — Poor
2 — Only So-So
3 — In Between
4 — Good
5 — Outstanding

IMPORTANCE COLUMN 1	CHAIRPERSON/HEAD RESPONSIBILITIES	PERFORMANCE COLUMN 2
1 1 2 3 4 5	Guides the development of sound procedures for assessing faculty performance	16 1 2 3 4 5
2 1 2 3 4 5	Recognizes and rewards faculty in accordance with their contributions to department's program	17 1 2 3 4 5
3 1 2 3 4 5	Guides development of sound organizational plan to accomplish departmental program	18 1 2 3 4 5
4 1 2 3 4 5	Arranges effective and equitable allocation of faculty responsibilities such as committee assignments, teaching loads, etc.	19 1 2 3 4 5
5 1 2 3 4 5	Takes lead in recruitment of promising faculty	20 1 2 3 4 5
6 1 2 3 4 5	Fosters good teaching in the department	21 1 2 3 4 5
7 1 2 3 4 5	Stimulates research and scholarly activity in the department	22 1 2 3 4 5
8 1 2 3 4 5	Guides curriculum development	23 1 2 3 4 5
9 1 2 3 4 5	Maintains faculty morale by reducing, resolving or preventing conflicts	24 1 2 3 4 5
10 1 2 3 4 5	Fosters development of each faculty member's special talents or interests	25 1 2 3 4 5
11 1 2 3 4 5	Understands and communicates expectations of the campus administration to the faculty	26 1 2 3 4 5
12 1 2 3 4 5	Effectively communicates the department's needs (personnel, space, monetary) to the dean	27 1 2 3 4 5
13 1 2 3 4 5	Facilitates obtaining grants and contracts from extramural sources	28 1 2 3 4 5
14 1 2 3 4 5	Improves the department's image and reputation in the total campus community	29 1 2 3 4 5
15 1 2 3 4 5	Encourages an appropriate balance among academic specializations within the department	30 1 2 3 4 5

• Indicate how frequently each of the following 30 statements is descriptive of your department chairperson/head by circling the number corresponding to your judgment:

1 — Hardly Ever (not at all descriptive)
2 — Less than Half the Time
3 — About Half the Time
4 — More than Half the Time
5 — Almost Always (very descriptive)

The department chairperson/head:

31 Makes own attitudes clear to the faculty	1 2 3 4 5
32 Tries out new ideas with the faculty	1 2 3 4 5
33 Works without a plan	1 2 3 4 5
34 Maintains definite standards of performance	1 2 3 4 5
35 Makes sure his/her part in the department is understood by all members	1 2 3 4 5
36 Lets faculty members know what's expected of them	1 2 3 4 5
37 Sees to it that faculty members are working up to capacity	1 2 3 4 5
38 Sees to it that the work of faculty members is coordinated	1 2 3 4 5
39 Does little things that make it pleasant to be a member of the faculty	1 2 3 4 5
40 Is easy to understand	1 2 3 4 5
41 Keeps to him-herself	1 2 3 4 5
42 Looks out for the personal welfare of individual faculty members	1 2 3 4 5
43 Refuses to explain actions	1 2 3 4 5
44 Acts without consulting the faculty	1 2 3 4 5
45 Is slow to accept new ideas	1 2 3 4 5

—OVER—

46	Treats all faculty members as his/her equal	1	2	3	4	5
47	Is willing to make changes	1	2	3	4	5
48	Makes faculty members feel at ease when talking to them	1	2	3	4	5
49	Puts faculty suggestions into action	1	2	3	4	5
50	Gets faculty approval on important matters before going ahead	1	2	3	4	5
51	Postpones decisions unnecessarily	1	2	3	4	5
52	Is more a reactor than an initiator	1	2	3	4	5
53	Makes it clear that faculty suggestions for improving the department are welcome	1	2	3	4	5
54	Is responsive to one "clique" in the faculty but largely ignores those who are not members of the clique	1	2	3	4	5
55	In expectations of faculty members, makes allowance for their personal or situational problems	1	2	3	4	5
56	Lets faculty members know when they've done a good job	1	2	3	4	5
57	Explains the basis for his/her decisions	1	2	3	4	5
58	Gains input from faculty on important matters	1	2	3	4	5
59	Acts as though visible department accomplishments were vital to him/her	1	2	3	4	5
60	Acts as though high faculty morale was vital to him/her	1	2	3	4	5

• Questions 61-70 ask about yourself or the department in general. Use this answer code:

1 — Definitely False
2 — More False than True
3 — In Between
4 — More True than False
5 — Definitely True

61	I enjoy my work in this department	1	2	3	4	5
62	I have a positive relationship with the department chairperson	1	2	3	4	5
63	I agree with the priorities and emphases which have guided recent development in the department	1	2	3	4	5
64	The department has been getting stronger in recent years (use responses 1 or 2 if it has been getting weaker; use response 3 if there has been little change)	1	2	3	4	5

During the past 12 months, the department chairperson's/head's effectiveness has been seriously impaired by:

65	Enrollment/retrenchment problems in the department	1	2	3	4	5
66	Inadequate facilities for the department	1	2	3	4	5
67	Bureaucratic requirements and regulations	1	2	3	4	5
68	Inadequate financial resources to support departmental programs	1	2	3	4	5
69	A relatively low priority given to the department by the chairperson's /head's immediate superior	1	2	3	4	5
70	Obstructionism negativism from one or more senior members of the faculty	1	2	3	4	5

• Your responses to the following questions will be returned to your chairperson/head. If you are concerned about anonymity, you may wish to type your responses or have them typed. .

Which matters need priority attention in the department during the next year or two? _____

_____

_____

Identify any departmental policies or procedures which you feel need immediate improvement _____

_____

_____

What is the most important observation you can make about the department chairperson's/head's

a) administrative effectiveness? _____

_____

b) administrative style? _____

_____

Other comments _____

_____

_____

Appendices B through H were deleted due to irreproducibility