A COMPARATIVE STUDY OF COMMUNICATION SKILLS IN TECHNICAL-VOCATIONAL AND COLLEGE PARALLEL STUDENTS

DISSERTATION

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By

Donald R. Hankins, B.S., M.Ed.
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This study is an investigation of: the communication skill proficiency of two-year technical-vocational students; the effects of age, ethnic background, and socio-economic index on standardized reading and writing test performance; and of communication skill priorities with respect to content emphasis as perceived by technical-vocational teaching personnel within the Tarrant County Community College system. The purpose of this study is to provide information pertinent to; the development of a functional communication skills program which will complement the occupational student's trade skills; the further development of a pre-technical program currently in operation at Tarrant County Junior College; and the construction of similar programs in other community college systems.

The determination of communication skill proficiency level resulted from performance on the reading and writing criterion instruments Nelson-Denny Reading Test, Sequential Test of Educational Progress—Writing and College English Placement Test. A technical-vocational student population sample was selected at random from the applied English course
unique to terminal programs. The comparison sample was selected at random from parallel students enrolled in English Composition. The resulting comparison indicated a statistically significant difference between group means at the .05 level of probability on all components on the Nelson-Denny Reading Test. It was evident that college parallel students comprehend better, read more rapidly, and possess a stronger vocabulary than terminal students.

The Sequential Test of Educational Progress-Writing produced a sample mean difference significant at the .01 level of probability. The College English Placement Test, composed of eleven subsections and a composite, failed to support a difference between sample means significant beyond chance at the .05 level of probability. However, all test means on the instrument favored the college parallel students. The writing tests considered collectively were adequate to assume that a significant difference does exist between technical-vocational students and college parallel students.

The second phase of investigation assessed the effects of demographic variables on performance of technical-vocational students, using the same test instruments as criteria. The resulting statistics, as determined by a chi-square test of significance, indicated that age has no significant relation
to the criterion variables at the .05 level of probability. Ethnic background proved to be a significant inhibitor on the Nelson-Denny Reading Test, Sequential Test of Educational Progress-Writing, and College English Placement Test. Socio-economic index, determined by family incomes below 8,000 dollars, was a significant performance inhibitor at the .05 level of probability on the Nelson-Denny and Sequential Test of Education Progress-Writing.

The third concern of this thesis was the determination of reading and writing content area priorities. Seventy-eight technocal-vocational instructors and administrators were surveyed to determine their perceived communication skill priority sequence. Seventy-two professionals responded to the survey. The instrument was constructed by Reading and English teachers currently working with technical students. On the reading questionnaire, technical and vocational personnel ranked reading and following printed directions, problem solving, and effective listening as most important. The correlation of agreement was r=.89. The writing survey considered the same population sample. Sentence structure, grammar, and mechanics and spelling were given the highest priority ranks. A correlation of agreement r=.69 indicates that technical-vocational instructional personnel agree on the communication skill needs of their students.
This study concludes that the research evidence warrants unique support curriculum programs designed to provide compensatory work and specific training for terminal students in general academic skill areas such as communications.
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CHAPTER I

INTRODUCTION

The primary function of Tarrant County Junior College is to research, design, develop, and implement a system of educational programs to satisfy the needs of the community. The educational needs of the community are diverse, and each program developed by the institution should provide quality education that is specific in its thrust. The educational range of the junior college encompasses noncredit continuing adult education, technical-vocational terminal education, and a two-year general education for university preparation.

In recent years there has been a continuous increase in the number of students entering technical-vocational programs. These programs are coordinated, funded, and evaluated by the Texas State Education Agency with the exception of general academic curriculum not specifically designed to provide skills unique to a technical or vocational field of study (3, p. 1). The general academic courses are referred to as support curriculum and are funded by the Coordinating Board, Texas College and University System, as are other general academic courses.

Applied Communication and Reading are two courses which are considered support curriculum for most technical-vocational
programs at Tarrant County Junior College, South Campus. These two courses are the only portion of the student's educational experience designed to develop or improve communication skills.

Tarrant County Junior College in 1974 is involved in the development of a pre-technical program which provides preparatory work in general academic skills. Among the courses in this program are Applied Communication and College Reading Techniques. The objective is to develop these courses to provide the necessary training in communication skills to afford technical-vocational students the background possible to function in his skill area. To accomplish this goal, it is necessary to determine the communication skill needs, the current proficiency level being attained, and the best techniques and curriculum emphasis to produce these skills.

Pre-technical programs are new and there is little research available to assist in effective design. This study provides material that will facilitate the construction of other pre-technical programs.
Subject of Study

The subject of this study is a comprehensive investigation of the communication skills possessed by terminal technical-vocational students as compared to those of university parallel students. It also investigates the emphasis in communications courses designed to provide communication skills in technical-vocational areas as they relate to skill needs defined by technical-vocational instructors and administrators.

Purpose of the Study

The purpose of the study is to provide information pertaining to curriculum emphasis in developing communication skills fundamental to the success of terminal technical-vocational students. This information will be used in the development of the pre-technical program at Tarrant County Junior College. It also provides pertinent research for the development of similar programs in other community college systems.

Hypotheses

1. There are no significant differences in the writing skills of university-bound students and those of terminal technical-vocational students upon completion of their initial college English course.

2. There are no significant differences in the reading skills of university-bound students and those of terminal
technical-vocational students upon completion of their initial college English course.

3. Age does not significantly affect the reading and writing skills of terminal technical-vocational students.

4. Ethnic background does not significantly affect the reading and writing skills of terminal technical-vocational students.

5. Socio-economic background does not significantly affect the reading and writing skills of terminal technical-vocational students.

Research Question

Where, according to technical-vocational administrators and teaching personnel at Tarrant County Junior College District, should emphasis in reading and writing be placed?

Background and Significance

On March 14, 1972, the Division of General Studies at Tarrant County Junior College, South Campus, responding to an apparent need for preparatory work in technical-vocational fields, proposed the development of a department of pre-technical education (10). This proposal was sent to the Dean of Instruction for consideration. A favorable evaluation of the proposal from the administrative dean instigated a meeting which included the division chairpersons from all terminal technical-vocational programs,
representatives of the Division of General Studies, and the academic dean. This committee reviewed the proposal and endorsed the creation of a preparatory program for prospective technical-vocational students whose American College Test (ACT) predictor scores indicated limited success expectation.

The impetus for the initial drafting of the 1972 proposal grew out of a counseling dilemma which had persisted since the inception of Tarrant County Junior College. The Division of General Studies housed a compensatory program for students entering the college with an ACT success predictor in the bottom quartile of the student population. The compensatory program provided an integrated, team-taught curriculum composed of general academic courses in Basic Communications, Natural Science, Humanities, Social Science, and Psychology. It provided close supervision and counseling during the students' initial year of college (13, p. 15). This Basic Studies Program was academically sound and assured quality compensatory work for students aspiring to a four-year degree (13, p. 58). However, it was not consistent with the remedial needs of students who would ultimately choose technical-vocational programs.

Students entering the college with low predictors were referred to Basic Studies counselors for compensatory advisement. Those students who indicated an interest in terminal education were directed into Basic Studies because there were no alternate programs providing close counseling
and special instruction. Unfortunately, Basic Studies did not assist the students toward meeting the requirements for technical-vocational programs.

In May of 1972 a final proposal was drafted outlining the curriculum, objective and rationale for a pre-technical program offering compensatory work in communication and social skills to go into effect in September, 1972. The program would also provide a special-problems course which would afford the student individual vocational counseling and an opportunity to investigate his fields of interest. In addition to this core, the student would select elective courses in business, office occupations, mathematics, or other courses approved by his counselor. (11).

After a year of success and growth, the department was expanded to include Applied Communications for all technical-vocational students. Because the role of the community college is new, with services supplying competency to students whose educational expectations have not previously been fulfilled, much research in the philosophy, curriculum, organization, and learning and teaching techniques to be employed in the community college is needed.

Of current significance in the field are two studies: 1) an investigation of social attitudes and self-concepts of technical-vocational students by Norman Murphy, doctoral student at The University of Texas at Austin; and 2) this comparative study of communication skills in technical-
vocational and college parallel courses. Quality education for technical and vocational students is long overdue. The community college is aware both of the need and of its ability to train for competency in a complex twentieth century.

Upon conclusion of the last Texas Education Agency biennial report, enrollment in technical-vocational programs had increased 21.7 per cent over the previous report and had reached 49,171 in Texas. The labor force prediction is that 25 per cent of those entering the world of work in the 1980's will need post-secondary technical skills (15, p. 8). This requirement intensifies the necessity for increased research in technical-vocational areas. The research must extend to esthetic skills as well as operational skills. The effort must also include the academically deficient student if the "open door" policy established by the original community college charter is to be maintained (4, p. 1).

It is also significant that as technology becomes more complex, the ability to communicate effectively becomes mandatory. The automotive mechanic must keep records and on occasion write reports. Manuals and directions must reflect the complexity of the operation they describe. Such a condition is described by communication expert Marshall McLuhan when he says, "language is the most complex of all man-made structure. It also embodies the largest amount of human skill and experience. From any point of view then, language training is the key to skill in all other structures and
functions (14, p. 26)." He suggested that we must explore the language in more complex order as the complexity of society increases. McLuhan considers freshman English as still a frontier world (14, p. 28). Wells (16, p. 2) maintains that the most significant advancement in the world of business and commerce has been in the more effective use of the written language. Written communication, he proposed, has provided the world of commerce its ticket to the modern age.

Numerous articles have been written on the teaching of reading and writing but little research is available on skill needs. McMurray (9) documented the need for technicians skilled in writing and offered reasons and techniques for teaching writing. In a study by Maxwell (8) statistics indicate that reading and writing skills must be an integral part of all post secondary programs because there is a definite tendency to lose writing skills following secondary school. His data indicated that seventeen-year-old individuals write better than do individuals in a sample of writers twenty-five to twenty-six years old.

Written and oral expression is an essential part of technical work. Nearly every job is preceded or followed by a report, and often there are reports both before and after. Many technicians estimate that seventy-five per cent of their time is given, not in doing technical work itself, but in communicating ideas about that work to others. No
matter what the particular field, the medium at some point is words (6, p. 1).

At Tarrant County Junior College a series of conferences with instructional staff in the technical-vocational areas has suggested certain distinct deficiencies which are becoming more pronounced. The major problem encountered by instructors in the vocational business fields is the inability of students to handle fundamental grammar. One possible explanation for this deficiency is misplaced emphasis and duplication of effort.

Definition of Terms

1. Applied Communication (Eng. 1303) -- A course designed to satisfy the communication skills unique to technical-vocational students.

2. Communication Skills -- For the purpose of this study communication skills is defined as reading and writing proficiencies.

3. English Composition (Eng. 1613) -- The initial freshman English courses designed primarily to satisfy transfer requirements to a four-year institution.

4. Mission -- At Tarrant County Junior College, this term is synonymous with general objective.

5. Operational Skills -- Skills which are unique to a particular program; i.e. Automotive Electricity is specific to Automotive Technology.
6. Pre-technical Programs -- Programs designed to provide compensatory work in general education for students who have academic deficiencies and are basically undecided about which technical-vocational program they wish to enter. These programs also include support curriculum for all technical-vocational students.

7. Support Curriculum -- General academic courses providing skills which facilitate the operational skills specific to a technical-vocational program, i.e., College Reading and Applied English.

8. Technical-Vocational Programs -- Technical programs of varying length, leading to associate degrees or certificates; and occupationally-oriented programs designed to train students for skilled employment. Particular emphasis is placed on economic and occupational needs and opportunities of the geographic area served by the college and on the industrial and technological needs of the state (4, p. 1).

9. Terminal Programs -- Programs which are not designed to lead to a four-year college degree.

10. Terminal Students -- Students enrolled in a terminal program.

Instruments

The Nelson-Denny Reading Test, Sequential Test of Educational Progress-Writing and College English Placement Test were employed to provide data for the investigation of communication skills. Each test was chosen for specific data rendered.
The *Nelson-Denny Reading Test*-Form C, published by Houghton Mifflin Company, provides a measure of all three major elements of reading ability: vocabulary, comprehension, and reading rate. The test contains one hundred items to measure reading vocabulary. The comprehension test contains thirty-six items given double weight in arriving at a total score. The total score is the best single index of reading ability obtained through the use of this instrument. The actual working time for this test is thirty minutes (1, p.3).

Standardization of the Nelson-Denny for college populations presented one limitation: the college population is not as stratified as the high school population. Individual colleges draw from very diverse regions, socioeconomic levels, and community sizes. The publishers of the test maintain that, in spite of diligent effort, cooperation was elicited from a very small portion of the desired sample. From four-year colleges only 929 grade thirteen students and 1018 two-year grade thirteen students composed the sample (5, p. 30).

The *Sequential Test of Educational Progress-Writing* (*STEP*), published by Educational Testing Service, measures ability to think critically in writing, to organize material, to write material appropriately for a given purpose, to write effectively, and to observe conventional usage in punctuation and grammar. Materials were selected from actual student writing in letters, answers to questions,
newspaper writing, announcements, essays, reports, records, minutes, logs, stories, notes, outlines, and answers to questionnaires and directions (2, p. 7).

The STEP is normed on the same sample population as the School and College Ability Test (SCAT). It yields a single raw score based on the number of correct responses to test items. The raw score is then converted to a standard score which produces a percentile rank for national norms. For the purposes of this study, STEP, Form 2A was used. This form is standardized on a grade twelve population. Results of a previous study (12, p. 41) indicate that Form 1A for college freshman has a difficulty level beyond the typical community college freshman. This investigation attempts to compare only relative success. The test boasts a high correlation to success in English or English related courses. Testing time is seventy minutes.

The College English Placement Test (CEPT), published by Houghton Mifflin Company, was chosen for this study because of the nature of its development. It was developed to be as pertinent as possible. A nation-wide survey of more than 160 colleges and universities was made to determine how entering freshmen were placed in English; what specific placement test or procedure was used; and what particular elements of English should be included (7, p. 3). The data provided guidance in determining the relative emphasis to be given to each area.
The **College English Placement Test (CEPT)** is divided into two parts. Part One consists of 106 objective items and can be administered in forty-five minutes. Part Two is composed of two short essays to be written by the student. Because objectivity is limited in scoring essay questions, only Part One is used in this study. National norms were not considered. Percentile ranks, using a N of 1172 students, have been established for junior college populations. For the purpose of this study only raw score comparisons have been made. The test is arranged to parallel the specific steps normally followed in writing an effective composition; therefore, it becomes an effective teaching instrument. It also has diagnostic implications which are valuable in this investigation (7, p. 10).

Survey instruments are unique to this study. The reading questionnaire (Appendix B) is constructed in such a way that lay persons in technical-vocational fields can express their views about priority. The instrument was constructed by two reading specialists who are at present working with technical students.

The writing questionnaire (Appendix C) was constructed by English teachers working with technical-vocational students. Again, it is worded in such a way that lay people in technical-vocational areas can suggest writing priorities.
Procedure for Collecting Data

The students were considered in two groups. One group, composed of approximately 100 technical-vocational students completing their initial semester of Applied Communications (English 1303) at Tarrant County Junior College was referred to as the study group. The study group was tested during the final two weeks of the semester in regularly scheduled Applied Communications classes. Limited randomization occurred as a result of independent class selection by the student. Classes to be tested were then selected by acceptable random procedures.

The second group was referred to as the comparison group. It was composed of approximately eighty college parallel students completing their initial semester of English Composition (English 1613). This group was also tested during the final two weeks of the semester in regularly scheduled English classes.

Test instruments employed to provide communication skill data are the Nelson-Denny Reading Test, Sequential Test of Education Progress-Writing, and College English Placement Test. The total testing time required was one hundred and forty-five minutes, or four college hour periods for each class. One psychometrist supervised the administration of all tests to assure testing standardization.

Survey data were collected by the circulation of questionnaires (Appendix B and C) to all technical-vocational
instructors and administrators in the Tarrant County Junior College system. The questionnaire was distributed by mail with a self-addressed envelop enclosed. A 90 per cent return was required.

Demographic variables considered in the interpretation of data were taken from personal data forms (Appendix A) distributed during the final testing period.

Limitation

1. All limitations assumed to be typical of a questionnaire survey.

2. Limited availability of research in this problem area to provide concurrent validity.

Treatment of the Data

For the purposes of this study there was less emphasis placed on treatment and designation of dependent and independent variable than in an actual experimental study. This investigation is primarily concerned with descriptive information of the time-oriented progress of a technical-vocational student compared with that of his counterpart in university preparatory classes. However, the nature of the curriculum could be considered a treatment. Some assumptions, unique to the study and comparison groups, are made about emphases and techniques employed in the course.

Since a pretest was not used, a quasi-experimental design has been employed for the purpose of determining
significance of means between the two groups. The size of samples being used was adequate for this purpose.

The data interpreted were difference between means on the Nelson-Denny vocabulary, comprehension, reading rate, and total score. On the Sequential Test of Educational Progress-Writing, difference between means on a single raw score was tested. The College English Placement Test was considered in sub-tests. In all tests of significance between means, the t test for independent samples was employed. Any significant difference ascertained for any portion of the study provides areas for investigation of curriculum emphasis in English 1613 (Freshman Composition) and English 1303 (Applied Communication).

The second phase of data interpretation involved effects of demographic variables: age, ethnic background, and socio-economic index. These conditions may relate to communication skills and provide additional information pertinent to program development. Sample size was determined by the demographic questionnaire (Appendix A). Data have been dichotomized for test scores and variables, and a median test employed. Significance of differences between test scores and demographic variables was determined by X^2. Scores were dichotomized above or below median, and samples were arranged as follows:

- Age: < mean <
- Ethnic background: white-non-white
- Socio-economic index: < mean >
In this portion of data interpretation, only the study group was considered.

The third phase of data interpretation was an analysis of questionnaires (Appendix B and C). These questionnaires are rank-order surveys to determine the relative importance of topical emphasis in Applied Communications and Reading as perceived by technical-vocational instructors and administrators. No statistical analysis or inference was made from this data. It was tallied, tabled, and considered in comparison with curriculum emphasis.
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CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The review of literature contained in this chapter will be concentrated in three areas:

(1) The commitment to the open door system in the community college.

(2) The general academic aspects of pre-technical programs.

(3) Research in programs and systems designed to develop communications skills.

The Commitment of the Open Door System in the Community College

One of the vital missions of the community college system is a commitment to the function of salvage and redirection (24). Admission standards of the university and four-year college often exclude students who for various reasons have not displayed evidence of academic capability. Many of these students can be salvaged in the community college by special compensatory programs which provide close academic and counseling supervision. Other students who have not developed the necessary skills for academic work can be identified and redirected into areas more consistent with
their individual talents. The ever-growing demand for technicians with applied formal training has encouraged community colleges to a rapid increase of the number and size of technical-vocational programs (27).

Technical-vocational programs are not, however, necessarily composed of academically deficient students. Some programs require more academic proficiency than others, but it is the consensus of the literature that technical-vocational students should possess many fundamental academic skills (22, 23).

The student composition of the community college requires greater curriculum flexibility and variety than that of the four-year college. It must be assumed that all students who enter the senior college are possible candidates for a four-year degree. This assumption cannot be made at the junior college level. Harris (9), as early as 1964, maintained that at least one half and possibly as high as 70 per cent of the students who enter the junior college will never enter a four-year institution. Gleaser (8, p. 66), four years later, suggested an even higher figure when he said that only one of three students enrolled in the community college would continue this work in a four-year college. This condition makes it mandatory for the community college to be as diverse as possible in order to meet the needs of all students. This diversity, as well as the "open-door" system in the community college, has incurred the criticism of many scholars.
Lynes (17, p. 55) suggests that the future of the two-year college is nebulous. "Its functions are so diverse, its pupils so scattered, and its efforts to be all things to all students so determined that it escapes identification...In general it has been looked down upon by holders of B.A. degrees as a refuge for the stupid, and it has been avoided as a place to teach by serious scholars." Jennings (10) questions the performance of the two-year college with respect to its stated objectives. He feels that the mission of the community college, although noble in motive, fails in its attempt to provide instructional needs of all the people. Jennings suggests that the period of prosperity presently being enjoyed the two two-year college is supported primarily by its strength in public relations but to survive it must produce more than promises.

Although the function of the two-year college remains questionable in the eyes of many scholars and administrators in higher education, there appears to be little doubt that its "open-door" policy has significantly affected enrollment. The coordinating Board Texas Colleges and Universities (6) estimated that one half of the students entering public higher education enroll in two-year colleges.

Proponents of the "open-door" system are more often advocates of the concept than the system itself. Moore (20), one of the leading proponents, emphasizes that "the term 'open-door' is hypocritical rhetoric if the student, regardless of his level of achievement, does not receive the best education possible in the college commensurate with his needs, efforts, and abilities."
These criticisms magnify the necessity for consistent evaluative studies of structures attempting to provide a program for everyone entering the two-year system.

The General-Academic Aspects of Pre-technical Programs

If one accepts the findings of the literature that fundamental academic skills are necessary for terminal students, the concept of a pre-technical program is important. A functional pre-technical program provides remedial or compensatory work, as well as support curriculum in general academic skills.

Bookings (3) has proposed pre-technical programs to attract potential technical-vocational students with inadequate backgrounds for success in a technical program. Such offerings could provide opportunities to strengthen science, mathematics, language, and basic study skills.

Miller and Gillie (18, p. 16) found that academic difficulty is the primary reason students leave post-secondary vocational and technical education. These authors also suggested that the most important reason for offering a pre-technical approach is to assist the willing and well-motivated students who need assistance in foundations skills before entering regular vocational and technical programs.

Tompkins (30) reported on the conclusion of one institute which proposed to accelerate the creation of compensatory programs for prospective vocational and technical students:
1. All agreed that the highest priority was research in this area.

2. Differences exist among educators concerning who should be admitted into such programs, everyone or only those who rank in the top 20th percentile in their test scores.

3. Institute participants also disagreed about the time frame for the program. Should it last one year or should entry and exit be based totally on achievement?

4. All felt a need for tested curriculum because no single source about the implementation and operation of a successful program existed.

5. Most participants were in general agreement concerning the subjects that should be taught: communication skills, science, mathematics, and reading and study skills. One writer briefly mentioned the importance of developing proper attitudes.

Miller and Berry (19) supported the concept that general education is crucial for career education. They also suggested the desirability of building curriculum materials around occupational themes. The Committee for Economic Development, 1971 (5) has echoed the concern for greater consideration of academic subject matter in technical-vocational areas.

Murphy (21, p. 136) found that students enrolled in special pre-technical programs which dealt with proficiencies in fundamental skills achieved higher grade point averages (GPA), persisted longer and experienced a significant decrease in externality of locus of control.

A perusal of the technical literature provided little information about existing pre-technical programs, but this
does not mean they do not exist. These programs are new and directors are just beginning to publish results and evaluations (21, p. 35). However, existing general compensatory programs at the college level provide a wealth of information about the purpose, methods, and effectiveness of preparatory work.

The history of the compensatory movement parallels the growth of the community college itself. Even major institutions, such as Boston College, have had Basic Studies programs for over twenty years (3). During the decade of the 1950's, the community college system began to recognize the need for equal educational opportunity for all.

The California City Colleges were the first to become actively involved in research and design of compensatory programs. In early 1960, Bakersfield College in California found that students with low academic potential were enrolling in regular college credit courses in increasing numbers. Research indicated that the presence of these students tended to impede the progress of other students. In an attempt to rectify this problem, the college established Program O (the O stands for Opportunity), a one semester program designed especially for low achievers. The purposes of the program were as follows:

1. To identify, as soon as possible, students of low academic potential or achievement.

2. To provide opportunity for those students to repair deficiencies and to demonstrate that they could do college work.
3. To remove from the regular classroom the student who needed remedial help in order that the progress of the regular student would not be impaired.

4. To eliminate early those who could not succeed in regular classes and redirect them into special programs.

Program 0 was an institutional effort to provide educational opportunity for all students entering the "open-door". The program was not easily designed nor simply implemented. The most serious problem was faculty support and acceptance, but the program has been successful enough to endure (14).

Bakersfield was only one of many community colleges experimenting with programs for high-risk students. In South Central Los Angeles, Compton Junior College discovered that two-thirds of their entering population scored below the fourteenth percentile on the *School and College Ability Test*. This condition forced the historically traditional school to establish an entirely new approach that would attempt the salvage function of the two-year college (15).

Early in 1963, the president of Compton Junior College directed the academic dean to affect major changes in course content. Primarily, Compton was seeking ways of developing programs that would provide basic education in addition to job training. The program was founded on the assumption that traditional vocational-technical courses alone were not the answers for young people. This, however, was one of the antecedents of the pre-technical approach.
The major characteristics of the Compton program were as follows:

1. All courses would be established with full faculty participation.

2. All courses were established in regular departments using regular classroom facilities and used faculty members who also taught traditional courses.

3. Subject matter was geared to the young adult and taught at an academic level commensurate with his level of attainment.

4. Each class followed a regular course of instruction with emphasis on instruction.
   a. Development of favorable work habits and conscientious, sustained effort.
   b. Accumulation of factual information and vocabulary deemed important in advanced study as well as vocation training.
   c. Opportunity for discussion and consideration of special problems and value judgements.

5. Each student was required to take at least one course in basic English.

6. Each class curriculum involved some writing and general vocabulary development.

7. Efforts were made to "lift-up" the student rather than "talk-down" to him.

8. Efforts were made to include in every course some attention to citizenship, social responsibility, intelligent voting practices, academic and vocational opportunities available, and acceptable standards of reliability, dependability, punctuality, and loyalty to democratic institution.

The Compton approach is summarized quite aptly by the philosophy motivating it. The California Public College
places the burden of salvaging human talent, whenever it is possible, on the segment of higher education--the junior college (15).

Now practically every two-year institution has some form of general compensatory program. These range from individual remedial courses to total developmental programs separate and distinct from the college at large. The area of underdevelopment still lies in the development of preparatory programs for technical-vocational students.

There is an impressive disparity between the aspirations and ability of marginal students. Among such students it is common to find those who indicate professions and careers but who have demonstrated neither the aptitude, interest, nor persistence required to accomplish their goals. Such disparity makes the placement function of compensatory programs vital. Initial counseling sessions with students of this disposition are arduous and tense, and the student is suspicious and defensive. Academic counseling for the compensatory student is, however, one of the most important aspects of such programs (20, p. 7).

Although the concept of compensatory education, both general and technical appears to be gaining emphasis throughout the United States, Kirk's review of literature (12) reflects doubt of the values of such programs. His study produced two conclusions:
1. There is little research concerning the effectiveness of compensatory education at the community college level in terms of academic performance, persistence, and student attitude.

2. Critics of the community college question the reluctance of institutions to evaluate and document their efforts.

Rouche and Kirk (25, p. 53), published the results of a study on compensatory programs in five two-year college units in Texas which enhance certain aspects of compensatory credibility. The study indicated that students in remedial programs earned a mean GPA of 2.66, almost three-fourth of a grade point higher than the 1.96 GPA earned by high-risk students in non-remedial programs. At one of the schools included in the study, the difference was highly significant (p .01). The study indicated that black students in these compensatory programs earned a mean GPA of 2.94, while comparable black students in non-remedial programs earned no higher than a mean 1.98. This study also found that students in special compensatory programs persisted in college longer than comparable students in non-compensatory programs. On Tarrant County Junior College South Campus 94 per cent of the students in special compensatory programs went into the second semester of college work as compared to 76 per cent persistence on the same campus among non-compensatory students (29, p. 57).

The final positive response to compensatory education was the 1973 commendation by the Texas Senate Interim
Committee on Public Junior Colleges which maintained that compensatory education programs were the best hope for disadvantaged students. The committee reinforced the previous criticisms charging lack of effective program evaluation but were sufficiently impressed to recommend complete funding of compensatory programs, as well as special programs to train people to teach academically deficient students (28).

Research in Programs and Systems Designed to Develop Communications Skills

Barrett (1, p. 16) found that, despite many opinions stressing the importance of communications as a necessary skill for technical-vocational students, no significant descriptive studies have been presented to indicate the status of such programs in the junior college. Barrett also found no research to support specific course content, objectives, or evaluation. An ERIC search conducted for this paper indicates a limited research has been done following Barrett's descriptive study. However, there are studies which continue to validate the need for such investigation.

Erickson (7), on the basis of responses from 133 of 379 industries in Wisconsin, Iowa, and in Minnesota to which questionnaires were sent, provided the following information:

1. Between 57.2 and 69 per cent of the technician's time was being spent in communicative skills.
   a. Originating letters - 6 per cent
   b. Writing technical articles - 11 per cent
   c. Reading technical articles - 10 per cent
2. Only the balance of the technician's time was spent in manual or purely technical tasks.

3. The study showed that English courses in the area schools were geared toward secretaries, auditors, or accountants rather than toward technicians.

4. Little attention was given to reading development, speech, oral and written technical reporting, and technical vocabulary.

Brown (4) stated that during the last decade, social, economic, and technical changes in our society have had an unprecedented effect on vocational education. He concluded from two major studies that secondary, post-secondary, and adult vocational-technical student enrollment will exceed 1.7 million by 1975. These statistics alone indicate a necessity for the reorientation of certain fundamental skill areas to provide specific training for a new and highly specialized type of student. Brown proposed a complete teacher education program to train teachers in technical emphasis.

Hinds Junior College in Raymond, Mississippi, has since 1962 been working with a technical writing course. It was basically a one semester, non-transferable, developmental course; however, certain trends have stimulated the college to research and strengthen the course. One factor is that the greatest increase in enrollment in the college has been in technically-oriented curriculum. As in many other two-year institutions, individuals are returning to school
to prepare for more gainful employment. Other incentives have included participation in a Ford Foundation program in technical education, and the receipt of a government grant to develop classroom material for technical writing. A random survey of area industries and service facilities stressed the design of a curriculum which emphasizes

Why and how to write instructions and process explanations, definitions, descriptions of mechanisms, analysis using classification and partition, and analysis using cause/effect; second semester includes direction and practices in writing summaries, business letters, a library research paper, and reports. Each of these types of writing is presented as a unit of study with specific objectives and specific assignments (29).

The current plans of the college are to refine and maintain current curriculum by visiting area industries and service facilities, interviewing vocational-technical instructors and advisory craft committee members, and by soliciting suggestions from former students who have attained gainful employment (29).

Conversely, McPherson (15) suggested that English specialization for technical-vocational students is limiting. The author questioned the utilization of specific courses that emphasize letter writing, report writing, and filling in forms. McPherson maintained that this concept inhibits the flexibility of technical students. She contended that a student who can write straightforward and coherent papers on his reaction to a picnic or a poem can write a straightforward and coherent report. "When he needs to write a
report on the job, he will have a special form anyway." If he is taught to read and follow directions, he will be all right. In McPherson's article Richard Worthen is quoted as making a special point of saying:

We must train not just for a narrow and immediate vocation, but for a probable and extended vocation--for the leisure time that everybody is going to have more and more of and for the possibility of rapid vocational obsolescence.

The findings of the 1965 Regional Conference on Teaching of English, published three years before McPherson's article, tended to agree that teachers should resist the pressures toward unduly high degrees of specialization or fragmentation of content. Recommendations did suggest that terminal students should be offered some work more closely related to their future career than the course content of transfer students (31).

In an earlier article by McPherson, the entire concept of the terminal English student was questioned. McPherson contended that the terminal English course is as ill-defined as the terminal student. By definition the terminal student will be confined to the two-year college, either by the nature of his curriculum or the inability to continue his education beyond the two-year college. McPherson believed that instead of allowing the terminal English student to identify himself, he should be identified by the institution on the basis of reading and writing skills. The author suggested that terminal students should be enrolled in terminal English
courses designed to teach critical reading, logical writing, and fundamental writing skills (16).

An approach that might be more functional for terminal students entering technical-vocational programs was suggested by Leeb (13) in 1971. His proposal would include a multi-model system, using a programed audio-visual approach which presents materials in such a way that reading, writing, and listening skills can be continously interrelated and specific to vocational-technical areas.

Little evaluation of existing programs or systems exists. The literature is generously sprinkled with program structure but the viability of such programs remains in question. According to Sawyer (26),

The demand for people trained in rhetoric, especially the sort of rhetoric employed by the 56 per cent who receive degrees in science and technology, remains high and is likely to increase. Scientists and technologists are much concerned with improving their writing.

Summary

This review of literature does not present research that statistically documents any English program as a panacea for teaching technical-vocational students. Some writers feel that standard or traditional English curriculum affords the technical student the flexibility to write in any capacity. This concept assumes, however, that traditional curriculum adequately trains technical-vocational students to read and interpret material unique to their vocation.
The other aspect of this review is the consideration of a pre-technical approach which would provide compensatory reading and writing training as well as departmentalization of all support curriculum for technical-vocational students. The limited data on actual pre-technical approaches made it necessary to review general compensatory programs which appear to be functioning with adequate success.

The review of the literature must suggest that the influx of students into technical-vocational programs by power of numbers alone will require special consideration in all areas of curriculum design, whether general academic or technical.
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CHAPTER III

ANALYSIS OF THE DATA

Introduction

The purpose of this study was to identify communication skills possessed by technical-vocational students, to determine the effects of certain demographic variables, and to ascertain the communication skill priorities as perceived by technical-vocational instructors and administrators. It was therefore necessary to employ both statistical processes and descriptive analyses.

Since it was not an objective of the study to manipulate variables in order to make statistical inferences about treatments, significances which occurred between test means were identified only to describe the population being studied as it compared to an independent population. The data collected were analyzed to determine the relative status of the technical-vocational student as compared to college parallel students in various communication skill categories, and to assess the priority of categories.

The first consideration of the study was to identify the skill level at which the technical-vocational student is functioning. Individual norms are not available for this group of students and it was not prudent to compare them to national norms on standardized test forms because the com-
the grade thirteen norm on all tests used in this study. However, it was functional to make comparisons using students in the same local population but who were involved in preparatory work for college transfer. This classification provided two distinct groups with opposing interests and educational needs. If students in both groups appear to have the same skills and the same skill requirements, then no special attention would be indicated for technical-vocational students.

The analysis of data was divided into three sections, as follows:

1. Section A - Comparative analysis of technical-vocational students and college parallel students on standardized reading and writing tests. This section included the determination of statistical significances between means on the Nelson-Denny Reading Test, Sequential Test of Educational Progress-Writing, and the College English Placement Test. The subjects involved in the study were taken at random from students enrolled in Applied Communications and English Composition. The Applied Communications students composed a study group, while English Composition students became the comparison group.

In addition to mean comparisons between groups, product-moment correlations were calculated for writing tests within the study group to establish concurrent validity.
Product-moment correlations were also determined for reading and writing tests to assess relationship.

2. Section B - Analysis of the effects of demographic variables on standardized test results. This section explored the relationship between the demographic variables age, ethnic background and socio-economic index to performance on all criterion tests.

3. Section C - Analysis of content area priorities as perceived by technical-vocational instructors and administrators. This section included a descriptive analysis of questionnaires sent to seventy-eight technical-vocational instructors and administrators. They were asked to rank, by priority, ten reading skill areas and ten writing skill areas as they perceived their relative value. A distinction was also made between technical and vocational programs and a separate priority table was established for each field.

This section also reported some individual responses as communicated by the suggestion blank on the questionnaires.

Section A - Comparative Analysis of Technical-Vocational and College Parallel Students on Standardized Reading and Writing Tests

This section compared the performance of two independent samples on three criteria. The first sample, referred to as the study group, was composed of technical-vocational students enrolled in Applied Communication. The second sample, or comparison group, was composed of college parallel
students enrolled in English Composition. The two samples were tested with the Nelson-Denny Reading Test, Sequential Test of Educational Progress-Writing, and the College Placement Test. The determination made was that significant differences did exist between means on each of the criterion mentioned above, including individual analyses of subtests on the Nelson-Denny and College English Placement.

The sample sizes varied slightly on each criterion variable due to the intricate nature of the instruments. The subjects in both samples were free to withdraw at any time during the testing process. Attrition was negligible, however, and sample sizes were adequate to yield valid results.

The statistic selected to determine significance between means was the \( t \) test for independent samples. A probability greater than .05 on a two tailed test was required for significance. Assuming the accepted method of stating probability, \( p \) must be less than .05 for rejection of the hypothesis. Stated in this manner, the indication is that only a five per cent chance exists for committing a type I error. Some latitude was assumed, however, due to the descriptive disposition of the study. If differences existed, although not statistically significant, they might be considered in the results.

In addition to the above considerations, a product-moment correlation was calculated for the study group
performance on the **Sequential Test of Educational Progress**
and the **College English Placement Test**. This coefficient
provided a measure of concurrent validity between the two
writing tests. A Pearson $r$ was also used to suggest rela-
tionship between the reading and writing instruments.

**Nelson-Denny Reading Test**

The Nelson-Denny was composed of two subtests, vocab-
ularly and comprehension, a total score, and a reading rate.
Each of these components was designated as criterion and a $t$
-test for independent samples was used to measure signifi-
cant differences between sample means (3, p. 15). In this
statistic df were determined by $N_1 + N_2 - 2$.

The Nelson-Denny vocabulary subtest had a study group
mean of 26.178 with a standard deviation of 14.111, while
the comparison group had a mean of 31.747 and a standard
deviation of 17.09. The $t$ value was 2.5753 indicating
significance at the .01 level of probability.

The comprehension subtest had a study and comparison
group means of 30.046 and 34.337 respectively, with standard
deviations of 12.1032 and 12.932. The $t$ value was 2.366,
significant at the .05 level of probability.

Reading rate produced a study group mean of 227.304
words per minute and the comparison group read at a mean rate
of 262.506. These particular values for rate were determined
by the subjects and the validity is questionable; however,
a $t = 2.513$ was significant at .05.
The total reading score was a composite of vocabulary and comprehension measures. The study group developed a mean of 55.568 with a standard deviation of 23.691. The comparison group had a mean of 66.024 with a standard deviation of 27.829. The value $t = 2.806$ was significant at the .01 probability level. Table I summarizes the results of the Nelson-Denny comparisons.

The Nelson-Denny correlated $r = .75$ with the Sequential Test of Educational Progress - Writing but the coefficient dropped to $r = .46$ on the College English Placement Test composite score.
### TABLE I

The relationship between technical-vocational and college parallel sample means on the criterion: Nelson-Denny reading test

<table>
<thead>
<tr>
<th></th>
<th>Study Group</th>
<th></th>
<th>Comparison Group</th>
<th></th>
<th>N&lt;sub&gt;t&lt;/sub&gt;</th>
<th>t-value</th>
<th>Probability Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>26.178</td>
<td>31.747</td>
<td>14.111</td>
<td>17.050</td>
<td>194</td>
<td>2.475</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Comprehension</td>
<td>30.046</td>
<td>12.103</td>
<td>34.337</td>
<td>12.932</td>
<td>194</td>
<td>2.366</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Reading Rate</td>
<td>227.304</td>
<td>262.506</td>
<td>90.041</td>
<td>105.668</td>
<td>194</td>
<td>2.513</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Total</td>
<td>55.567</td>
<td>66.024</td>
<td>23.691</td>
<td>27.829</td>
<td>194</td>
<td>2.806</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>
Sequential Test of Educational Progress-(STEP)

The STEP writing test measured ability to think critically in writing, to organize materials, to write materials appropriate for a given purpose, to write effectively, and to observe conventional usage in punctuation and grammar (2, p. 3). The subsections listed above are not measured separately; therefore, only a composite score could be obtained.

Technical-vocational students composing the study group had a sample mean of 30.719 and a standard deviation of 10.042. One hundred and fourteen students composed this sample. Eighty-two college parallel students composed the comparison sample. The comparison group had a composite mean of 35.012 with a standard deviation of 9.581. The subsequent value of $t = 3.916$ indicated a significant difference between means with a probability value of .01.

The Sequential Test of Educational Progress-Writing was compared to the Nelson-Denny as indicated in the preceding topic. The correlation coefficient between the STEP and College English Placement Test was $r = .49$.

College English Placement Test-(CEPT)

The College English Placement Test was composed of eleven subtests measuring individual areas of English proficiency. Finally, a composite score was developed from the subtests. Since each area measured an individual
proficiency, t values were determined for all subtests. However some of the areas contained such a limited number of items that the validity is questionable. It will be discussed in Chapter IV. A similar question will be discussed with respect to working time for the CEPT. The final subtest included on the instrument involved grammar proficiency and the time restriction was prohibitive for a large percentage of the subjects.

Subtests were reported in sequence for each measure of English proficiency. The population sample included 102 subjects in the study group and 82 in the comparison group. All subjects attempted the entire test and compose the sample size for each subtest in the instrument.

Section I used only two items to measure the ability to limit a subject by choosing a topic of appropriate scope. The study group had a mean of .3700 and a SD of .5366. The comparison group mean was .5460, SD .6476. The value of \( t = 1.961 \) was significant at the .05 level of probability.

Section II measured outlining, identifying items as main topics, subtopics or irrelevant. The means of 9.590 and 11.158 for the study and comparison group respectively produced a \( t = 2.2703 \) indicating significance at the .05 probability level. This section included thirteen items. Standard deviations were almost identical at 4.664 and 4.546 respectively.
Section III considered the classification of items into common categories. No significant difference between means was indicated. For the ten items included, the study group achieved a mean of 4.230 and the comparison group was 4.45. The resulting \( t \) value was .824.

Section IV evaluated paragraphing proficiency, the ability to group sentences into paragraphs and arrange them in logical order. The study group mean was 2.610 with a standard deviation 1.864 while the comparison group accomplished a mean of 2.963 with a SD of 1.810. However, the resulting \( t \) of 1.281 was not adequate to reject the null hypothesis at the .05 level of probability.

Section V included only two items to measure the use of transitions. In this area the study group accomplished a higher mean (1.260) than the comparison group (1.000). The value of \( t = 1.855 \) was not significant at the .05 level.

Section VI contained eleven items measuring the ability to choose effective sentences. The study group and comparison group had respective means and standard deviation of 3.820, SD 1.651 and 4.243, SD 2.057. The mean difference produced a \( t = 1.533 \) which was not significant at the .05 level of probability.

Section VII, VIII, and IX dealt generally with vocabulary. Section VII investigated the understanding of analogies. The study mean was 2.233 and the comparison group mean was 2.281. The \( t \) value of .266 indicated no significant relation at the .05 level of probability.
Section VIII contained continued evaluation of vocabulary, emphasizing the selection of the right word or synonym with appropriate connotation. The study group mean was 2.490 for the four items included in the section while the comparison group had a mean of 2.731. This difference was not significant at .05. The \( t \) value was 1.222.

Section IX consisted of further evaluation of vocabulary which considered the recognition of favorable and unfavorable connotations of words. The \( t \) value for the mean comparison was 1.112 for means of 3.820 and 4.158. No significant difference was indicated.

Section X concentrated on proper use of verbs: principle parts, tenses, and standard forms. Four items were included in the section. The study group had a mean of 2.440 with a standard deviation of 2.121. The comparison group acquired a mean of 2.841 and a standard deviation of 2.002. The value of \( t \) was 1.262. This was not significant at the .05 level of probability.

Section XI was composed of 20 items measuring grammar and mechanics including capitalization, punctuation, and spelling. The mean for the study group was 5.790 with a standard deviation of 5.713. The comparison group had a mean of 7.481 with a standard deviation of 5.82. The resulting \( t = 1.964 \) was significant at the .05 level of probability. In this section, however, 33 per cent of the study group failed to reach the first question whereas only 19 per cent of the com-
parison group failed to attempt section XI in the allotted time.

The composite score for the two groups on the one hundred-six item College English Placement Test failed to support a significant difference in proficiency level. The study group had a total score mean of 46.24 with a standard deviation of 22.159. The comparison group achieved a mean of 50.7073 and a SD of 16.595. The value $t = 1.502$ was not sufficient to support a difference beyond chance at the .05 level of probability. Table II summarizes the results of sample mean comparisons on the College English Placement Test.
<table>
<thead>
<tr>
<th>Study Group</th>
<th>Comparison Group</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>t</th>
<th>Probability Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section I</td>
<td></td>
<td>.370</td>
<td>.537</td>
<td>184</td>
<td>1.961</td>
<td>.05</td>
</tr>
<tr>
<td>Section II</td>
<td></td>
<td>9.590</td>
<td>11.158</td>
<td>184</td>
<td>2.270</td>
<td>.05</td>
</tr>
<tr>
<td>Section III</td>
<td></td>
<td>4.230</td>
<td>4.450</td>
<td>184</td>
<td>2.824</td>
<td>.05</td>
</tr>
<tr>
<td>Section IV</td>
<td></td>
<td>2.610</td>
<td>2.963</td>
<td>184</td>
<td>1.281</td>
<td>.05</td>
</tr>
<tr>
<td>Section V</td>
<td></td>
<td>1.260</td>
<td>1.026</td>
<td>184</td>
<td>1.855</td>
<td>.05</td>
</tr>
<tr>
<td>Section VI</td>
<td></td>
<td>3.820</td>
<td>1.855</td>
<td>184</td>
<td>1.533</td>
<td>.05</td>
</tr>
<tr>
<td>Section VII</td>
<td></td>
<td>2.233</td>
<td>2.261</td>
<td>184</td>
<td>1.222</td>
<td>.05</td>
</tr>
<tr>
<td>Section VIII</td>
<td></td>
<td>1.263</td>
<td>1.269</td>
<td>184</td>
<td>1.112</td>
<td>.05</td>
</tr>
<tr>
<td>Section IX</td>
<td></td>
<td>2.233</td>
<td>2.057</td>
<td>184</td>
<td>1.262</td>
<td>.05</td>
</tr>
<tr>
<td>Section X</td>
<td></td>
<td>3.820</td>
<td>1.261</td>
<td>184</td>
<td>1.964</td>
<td>.05</td>
</tr>
<tr>
<td>Section XI</td>
<td></td>
<td>2.440</td>
<td>2.261</td>
<td>184</td>
<td>1.502</td>
<td>.05</td>
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<tr>
<td>Total</td>
<td></td>
<td>46.240</td>
<td>22.159</td>
<td>184</td>
<td>50.707</td>
<td>.05</td>
</tr>
</tbody>
</table>
Three demographic variables age, ethnic background, and socio-economic index were investigated to determine if there was a significant relation to performance on the standardized tests used as criteria in this study. Each variable was tested independently for relationship to the Nelson-Denny Reading Test--total score, Sequential Test of Educational Progress-Writing, and the College English Placement Test-composite score. The statistic chosen for the comparison was the Sign test for independent samples.

The Sign test relates two samples to the criterion test medians. The determination is significant differences between samples. The statistic is designed as a nonparametric alternative to the $t$ test for independent samples. The null hypothesis states that no difference exists between test medians of the populations from which the samples were drawn. For the purpose of this study, a median was calculated for results on each of the above standardized tests; the samples were determined by dichotomizing the technical-vocational student described in Chapter One. Only the technical-vocational student sample was considered in this section.

Sampling dichotomy was accomplished by dividing the initial sample into samples of white and non-white ethnic background, above and below mean age, and above and below
socio-economic index mean. The demographic data were obtained from a student data sheet (Appendix A) completed by each student during the testing process.

The use of mean scores for determining central tendency to dichotomize samples was expedient and adequate. Extremes were controlled by the structure of the data form for socio-economic index and age extremes were considered desirable.

After medians were calculated for criterion variables and students were divided into independent samples, the data were tabulated in the form of a 2 X 2 contingency table. A Chi-square test of significance was used to determine if a significant difference did exist between samples (3, p. 85).

**Nelson-Denny Reading Test**

One hundred and thirteen technical-vocational students were tested with the *Nelson-Denny Reading Test* and a total score median of 53.7 was calculated. The three demographic variables were dichotomized to establish two samples which could be used to determine if these variables were distributed equally about the median of the criterion variables. The results for the demographic variable to criterion relationship is expressed in Table III.
TABLE III

RELATIONSHIP OF DEMOGRAPHIC VARIABLES TO THE CRITERION:
NELSON-DENNY TEST PERFORMANCE

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>$X^2$</th>
<th>df</th>
<th>Probability Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.25</td>
<td>1</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>Ethnic background</td>
<td>9.35</td>
<td>1</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>Socio-economic index</td>
<td>7.99</td>
<td>1</td>
<td>&lt; .01</td>
</tr>
</tbody>
</table>

The variable-age divided subjects in samples of students who were above the mean age of 27.8 years, and those who fell below this mean. Forty-seven subjects were above the mean age and sixty-six fell below the mean. In sample I (above mean) twenty-six students scored above the median on the test instrument (criterion). Twenty-one fell below the median. Sample II (subjects below mean age) included thirty students who scored above median and thirty-six below median. A $X^2$ test of significance was administered with degrees of freedom $(R-1) (C-1) = 1$. The $X^2 = 1.25$ was not significant at the .05 level of probability.

The effects of the second predictor, ethnic background, was determined by dichotomizing the subjects into a white and non-white sample. Seventy-seven subjects composed the white sample while 35 non-white students composed the second
sample. Forty-six subjects in the white sample scored above the median and 35 scored below median. The non-white sample had ten students above the median and twenty-five below. A $X^2 = 9.35$ was significant at the .01 level of probability, indicating that white students score significantly higher than non-white students.

The third demographic variable, socio-economic index, reflected a mean family income of 8,000 dollars per year. Samples were determined by subjects indicating a family income above or below the mean index. These samples were compared to the Nelson-Denny median using the procedure outlined above. A $X^2 = 7.99$ was calculated, indicating a significant difference between samples at the .01 probability level. This suggests that socio-economic index has a significant relationship to performance on the Nelson-Denny Reading Test.

**Sequential Test of Educational Progress-Writing**

The second consideration was the determination of relationship between the same demographic variables and the criterion: *Sequential Test of Educational Progress-Writing.*

The age samples were determined, as before, using a mean of 27.8 years. The median score on the STEP was 30.15 for a total population sample of 114 students. The effects of the predictors on the criterion is expressed in Table IV as shown.
Sample I was composed of forty-seven subjects above mean and sixty-seven below. A 2 X 2 contingency table was constructed and $X^2$ was calculated. The results produced a $X^2 = .01$ which was not sufficient to be significant at the .05 probability level indicating no relation between the variable, age, and performance on the STEP writing test.

Ethnic background represented by samples dichotomized as white and non-white ethnic background had a $X^2 = 7.07$, significant at the .01 probability level. This statistic indicated that white students perform significantly higher than non-white students on this criterion variable.

Socio-economic index was compared to the STEP median producing a $X^2 = 4.80$, significant at the .05 probability level. This indicated that subjects above the socio-economic mean tended to perform better on this writing test.
College English Placement Test

The third instrument compared to demographic variables age, ethnic background, and socio-economic index was the College English Placement Test. The median score on the CEPT was 43.75 for technical-vocational students. One hundred and two subjects were measured with this instrument. The mean age for subjects was 27.5 years. The mean socio-economic index was again 8,000 dollars per year. The results of the comparisons are shown in Table V.

TABLE V

RELATIONSHIP OF DEMOGRAPHIC VARIABLES TO THE CRITERION: COLLEGE ENGLISH PLACEMENT TEST

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>( X^2 )</th>
<th>df</th>
<th>Probability Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.26</td>
<td>1</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Ethnic background</td>
<td>5.60</td>
<td>1</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Socio-Economic index</td>
<td>.04</td>
<td>1</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>

The samples were again divided into above and below mean groups. A \( X^2 = .26 \) was calculated for age-criterion relation, which was not significant at the .05 level of probability.
Ethnic background produced a $X^2$ of 5.60 for white-non-white samples, which was significant at the .05 level of probability. White ethnic background subjects scored significantly higher than non-white background students.

The socio-economic variable compared to performance on the College English Placement Test again considered two samples. Sample one was composed of students with family incomes exceeding 8,000 dollars annually. Sample two was subjects with income below 8,000 dollars. Compared to the criterion, CEPT, a $X^2 = .04$ was not significant at the .05 level, indicating no relation between socio-economic index and performance on the test.

Section C - Analysis of Content Area Priorities
As Perceived by Technical-Vocational Instructors and Administrators

Two separate communication skill questionnaires were sent to technical-vocational teachers and administrators employed by the Tarrant County Junior College District. One of the qualifications required by the college for employment in technical-vocational fields is practical experience in that field. For this reason it was assumed that these instructors would be aware of the communication needs pertinent to their area of instruction. On the basis of this assumption, 78 technical-vocational instructors and administrators were surveyed. Seventy-two questionnaires
were returned, accounting for 92.3 per cent of the desired sample. The population surveyed is described in Table VI and Table VII as shown:

**TABLE VI**

TECHNICAL RESPONDENTS LISTED BY DEPARTMENT

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeronautical Technology</td>
<td>1</td>
</tr>
<tr>
<td>Architectural Technology</td>
<td>2</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>Broadcast Technology</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Transportation</td>
<td>2</td>
</tr>
<tr>
<td>Data Processing</td>
<td>6</td>
</tr>
<tr>
<td>Electronic Technology</td>
<td>4</td>
</tr>
<tr>
<td>Engineering Technology</td>
<td>4</td>
</tr>
<tr>
<td>Health Occupations</td>
<td>2</td>
</tr>
<tr>
<td>Instructional Media Technology</td>
<td>3</td>
</tr>
<tr>
<td>Mechanical Technology</td>
<td>2</td>
</tr>
<tr>
<td>Radio-Television</td>
<td>1</td>
</tr>
<tr>
<td>Refrigeration and Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>

**TABLE VII**

VOCATIONAL RESPONDENTS LISTED BY DEPARTMENT

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Occupations</td>
<td>3</td>
</tr>
<tr>
<td>Business Occupations</td>
<td>6</td>
</tr>
<tr>
<td>Child Development</td>
<td>2</td>
</tr>
<tr>
<td>Fashion Merchandising</td>
<td>1</td>
</tr>
<tr>
<td>Food Marketing</td>
<td>1</td>
</tr>
<tr>
<td>General Office Occupations</td>
<td>8</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>1</td>
</tr>
<tr>
<td>Mid-Management</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate</td>
<td>1</td>
</tr>
<tr>
<td>Teacher Assistant</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>
Writing Skill Priorities

The first questionnaire (Appendix B) was a questionnaire on writing, composed of content areas representing possible areas of concentration for an Applied English Course. These content areas were developed by teachers who have taught both technical English courses and traditional English composition. Content areas included on the writing questionnaire were simplified and expressed as topics so that misinterpretation could be minimized and lengthy descriptive summaries could be eliminated.

The respondents were asked to rank each topic according to priority or need for emphasis. The responses were tabulated and a weighted value was calculated for each topic. The following equation expressed the basic model used to determine a relative weight.

\[ V = \frac{\sum_{i=1}^{10} (N_{tot} \times R)}{N_{tot}} \]

where

- \( N_{tot} \) = the total number responding to a content area at a particular rank
- \( R \) = rank 1 - 10 (1 having the greatest value and 10 the least value)
- \( V \) = total value of content area (lowest \( V \) having the greatest value and highest \( V \) the lowest value)

A mean score was then obtained by dividing the weighted value by the number of respondents. The mean was used to establish a rank order for writing priorities.
Since a curriculum distinction is made between technical and vocational programs, a priority rank was developed for both fields, using the above statistic. A composite rank was then calculated for the combined fields. This information was used to determine differences in priorities perceived by the two areas. Forty-four technical respondents and twenty-eight vocational respondents composed the sample. The results are expressed in Table VIII and Table IX. The composite appears in Table X.

Tests for significance were not used in this section of the study and any conclusion about the differences in content area means were made by inspection. In an effort to provide evidence for relationship between technical and vocational writing skill priorities, a product-moment correlation coefficient was calculated (3, p. 101). Writing skill priorities for technical and vocational respondents had a correlation coefficient of $r = .69$.

Writing skill areas included on the questionnaire, along with a description and analysis of response, are detailed in the subsequent topics.

**Grammar and mechanics.**--This content area is defined as parts of speech, rhetoric, punctuation, mechanics, and spelling. It may also include sentence patterns and paragraph construction; however, these areas, along with spelling, are often excluded as components of grammar by lay-persons. For the purpose of this study, sentence
patterns, paragraph construction, and spelling were listed as individual content areas (2, p. 65; 4, p. 257).

Grammar and mechanics received a mean value of 4.47 on a ten point continuum by technical respondents, and 2.79 by vocational respondents. It was given a priority rank of 2 by both fields and a composite rank of 2.

Sentence structure.--This area includes clear, concise and complete sentence construction to convey meaning validly and precisely. It emphasizes the sentence as the fundamental unit of writing and proper structure as an assurance of conveyance of meaning.

Sentence structure produced a priority mean of 4.00 and 3.14 by technical and vocational respondents respectively. The composite mean was 3.78 and the priority rank was 1.

Paragraph construction.--Paragraph construction includes the proper development of a unit of writing built around a central idea called a topic sentence. The paragraph depends on proper use of sentences so arranged that the connection between them is obvious and the movement from one idea to another is smooth. The basis, then of clarity within the paragraph is first, unification of its content around a central thought and, second, coherence between successive ideas (4, p. 3).

The paragraph received a mean value of 5.36 for technical respondents and 3.96 for vocational respondents.
The composite mean was 4.71, producing a priority value of 5.

Word choice in writing.--This content area considers the proper selection of effective terminology in writing. The skill affords maximum use of vocabulary and is vital for precise technical writing.

Word choice in writing was given a mean value of 4.49 by technical respondents. Vocational respondents considered it somewhat less valuable, accumulating a mean of 4.75. The composite mean calculated for technical and vocational respondents was 4.61, with a composite rank of 4.

The outline.--The outline is a classical tool used to organize writing into a logical sequence prior to the formal writing process. In simplest form it divides a report into three parts: introduction, body, and conclusion. In technical articles this structure is the basic organization of all reporting. In more complex forms of writing, the outline becomes a formula or equation from which a message can be constructed.

On the outline, technical respondents had a mean of 5.61 and a group rank of 8. Vocational respondents had a mean of 6.43. The composite mean was 5.93, developing a priority rank of 8.

Essay writing (composition).--In a traditional English course this content area includes such topics or types of
writing as exposition, argument, description, and narration. Each of these topics could be further divided; i.e. exposition is divided into five categories--definition, comparison and contrast, classification, process analysis, and cause/effect. Each condition is a technique or method or written expression (2, p. 67).

This content area was seen as least valuable by both technical and vocational personnel. The mean value for technical respondents was 7.73 while vocational respondents had a mean of 8.00. The composite mean was 7.81, giving a total value of 10.

**Spelling.**--This content area is normally considered a function of grammar and mechanics. However, for the purpose of this study, it was listed as a separate area in order to assess the exact emphasis perceived by technical-vocational personnel. Included in the population sample are office occupation programs which give spelling special emphasis. The study of spelling in an English or Reading course would include developing an understanding of Greek and Latin roots and phonics, as well as fundamental spelling rules.

Spelling had a mean of 4.91 for technical respondents and a smaller mean of 3.22 for the vocational sample. The composite mean was 4.28, producing a rank of 3.
Oral communication.--This area concentrates on simple, straightforward and unstudied speaking. The prominent skills to be developed are clear enunciation, maintenance of eye contact, voice modulation, good posture, spontaneous gestures and avoidance of irritating mannerisms. This content area becomes increasingly more important as the technician advances to areas of management (4, p. 214).

Oral communication received a mean value of 5.05 for technical respondents and 4.86 for vocational people. The composite for both groups was 4.83, giving it a priority rank of 6.

Writing and interpreting forms and instruction.--This content area emphasizes the ability to use and understand precise language in the writing and interpreting of printed instructions and technical forms. Harwell (3, p. 88) said, "At this point we are at the heart of scientific and technical writing." "Instructions are divided to embody information; its purpose is to serve and, to the reader, it is meant to inform and direct. Practically all tasks begin with a preliminary and end with a final report" (4, p. 80).

This content area had a mean for technical respondents of 5.50. Vocational personnel responded at a mean of 6.21, producing a composite mean of 6.00 and a rank of 8.

Written reports and summaries of technical material.--Two kinds of reports are considered: the formal and the
informal. The formal report is distinguished from the informal in that (a) it nearly always has supplementary components—that is, parts besides the basic ones of the body; (b) the text is double-spaced; (c) the style is impersonal; and (d) general practice still favors third person writing (4, p. 105).

Informal reports are characterized by (a) rarely having more than three essential parts—introduction, discussion, and terminal section; (b) single-spaced text; (c) the style of writing is easy and personal; (d) there is no restriction on the use of pronouns. The business letter falls in the informal category, making this content area important in technical writing (4, p. 150).

Technical respondents had a priority mean of 5.63 compared to 8.28 for vocational respondents. This was the greatest disparity between the two groups. The composite mean was 6.70, giving the area a priority rank of 9.

**Summary of statements and suggestions by technical-vocational respondents on reading priorities.**—The following statements and suggestions were taken from the writing questionnaire. The responses are random and unstructured.

It is impossible to lump together the communication skill needs of vocational-technical students. Two- and four-year electronic and mechanical technology students need extensive training in all of these areas. Most technical writers and engineering writers come from these ranks. Most technicians at some time have need of writing skills for engineering reports. In addition to the above skills, extensive work
in organization of material is required. Radio-television students would function well if they could spell. This would also be true of all other service areas, etc., auto-mechanics, air-conditioning, and appliance.

A technical writing course should be taught by a person with engineering or technical background.

Writing exercises should emphasize more the importance of being able to put thoughts into words.

It seems that the most important writing skill for technical-vocational students is the ability to express one's thoughts precisely and clearly.
### TABLE VIII

RESPONSE TO WRITING SKILL SURVEY BY TECHNICAL INSTRUCTORS AND ADMINISTRATORS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Cumulative Value</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence structure</td>
<td>176</td>
<td>4.00</td>
<td>1</td>
</tr>
<tr>
<td>Grammar and mechanics</td>
<td>197</td>
<td>4.47</td>
<td>2</td>
</tr>
<tr>
<td>Proper word choice in writing</td>
<td>198</td>
<td>4.49</td>
<td>3</td>
</tr>
<tr>
<td>Spelling</td>
<td>216</td>
<td>4.91</td>
<td>4</td>
</tr>
<tr>
<td>Oral communication</td>
<td>222</td>
<td>5.05</td>
<td>5</td>
</tr>
<tr>
<td>Paragraph construction</td>
<td>236</td>
<td>5.36</td>
<td>6</td>
</tr>
<tr>
<td>Writing and interpreting forms and instructions</td>
<td>242</td>
<td>5.50</td>
<td>7</td>
</tr>
<tr>
<td>Developing an outline</td>
<td>247</td>
<td>5.61</td>
<td>8</td>
</tr>
<tr>
<td>Writing summary interpretations of technical material</td>
<td>248</td>
<td>5.63</td>
<td>9</td>
</tr>
<tr>
<td>Composition (essay writing) research paper</td>
<td>340</td>
<td>7.73</td>
<td>10</td>
</tr>
<tr>
<td>Topic</td>
<td>Cumulative Value</td>
<td>Mean</td>
<td>Rank</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>Grammar and mechanics</td>
<td>78</td>
<td>2.79</td>
<td>1</td>
</tr>
<tr>
<td>Sentence structure</td>
<td>88</td>
<td>3.14</td>
<td>2</td>
</tr>
<tr>
<td>Spelling</td>
<td>90</td>
<td>3.22</td>
<td>3</td>
</tr>
<tr>
<td>Paragraph construction</td>
<td>111</td>
<td>3.96</td>
<td>4</td>
</tr>
<tr>
<td>Proper word choice in writing</td>
<td>134</td>
<td>4.75</td>
<td>5</td>
</tr>
<tr>
<td>Oral communication</td>
<td>136</td>
<td>4.86</td>
<td>6</td>
</tr>
<tr>
<td>Developing an outline</td>
<td>180</td>
<td>6.43</td>
<td>7</td>
</tr>
<tr>
<td>Writing and interpreting forms and instructions</td>
<td>190</td>
<td>6.71</td>
<td>8</td>
</tr>
<tr>
<td>Composition (essay writing) research paper</td>
<td>224</td>
<td>8.00</td>
<td>9</td>
</tr>
<tr>
<td>Writing summary interpretations of technical material</td>
<td>232</td>
<td>8.28</td>
<td>10</td>
</tr>
</tbody>
</table>
### TABLE X

**COMPOSITE RESPONSE TO WRITING SKILL SURVEY BY TECHNICAL-VOCATIONAL INSTRUCTORS AND ADMINISTRATORS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Cumulative Value</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence structure</td>
<td>272</td>
<td>3.78</td>
<td>1</td>
</tr>
<tr>
<td>Grammar and mechanics</td>
<td>275</td>
<td>3.82</td>
<td>2</td>
</tr>
<tr>
<td>Spelling</td>
<td>308</td>
<td>4.28</td>
<td>3</td>
</tr>
<tr>
<td>Proper word choice in writing</td>
<td>332</td>
<td>4.61</td>
<td>4</td>
</tr>
<tr>
<td>Paragraph construction</td>
<td>339</td>
<td>4.71</td>
<td>5</td>
</tr>
<tr>
<td>Oral communication</td>
<td>348</td>
<td>4.83</td>
<td>6</td>
</tr>
<tr>
<td>Developing an outline</td>
<td>427</td>
<td>5.93</td>
<td>7</td>
</tr>
<tr>
<td>Writing and interpreting forms and instruction</td>
<td>432</td>
<td>6.00</td>
<td>8</td>
</tr>
<tr>
<td>Writing summary interpretations of technical materials</td>
<td>482</td>
<td>6.70</td>
<td>9</td>
</tr>
<tr>
<td>Composition (essay writing) research paper</td>
<td>552</td>
<td>7.81</td>
<td>10</td>
</tr>
</tbody>
</table>

Writing skill priorities for technical respondents correlated $r = .69$ with vocational respondents.
Reading Skill Priorities

The reading skill questionnaire was sent concomitantly with the writing questionnaire, allowing the same sample population to establish priorities for both skill areas. Again 92.3 per cent of the subjects responded to the questionnaire and a rank order was determined independently for forty-four technical and twenty-eight vocational respondents. Finally, a composite mean was established for the total sample. This mean provided an order by rank (1 - 10) for content areas included on the questionnaire.

The formula on page sixty was employed to calculate the weighted value for each reading topic. A mean was determined for each topic and used to produce a rank order. A correlation coefficient was calculated for technical and vocational respondents.

The rank orders suggested by the reading survey are shown in Table XI, Table XII, and Table XIII. The following content areas were included on the reading questionnaire.

**Vocabulary and terminology of each technical area.**—This content area includes development of vocabulary and identification of terminology unique to a particular technical field. It would utilize a system of individualized instruction so that students in each field might deal specifically with the language of his area of concentration. The language would be precise and exclusive.
This content area received a mean value of 4.47 and a rank of 4 by technical respondents. Vocational respondents produced a mean of 4.71 and a rank of 5. The composite mean was 4.49, giving a total rank of 4.

**Reading and following printed directions.**—This topic complments the writing content area which emphasized writing and interpreting instructions. As a reading skill, the emphasis would be placed on precision in reading.

Reading and following printed directions received a mean value of 3.34 for technical respondents and 2.78 for vocational people. The composite mean was 3.12, providing a rank of 1 for technical and vocational fields.

**Problem Solving.**—Problem solving taught in a reading course emphasizes the development of reading skills pertinent to gathering data, synthesizing, and drawing valid conclusions. Again, problem areas unique to each technical-vocational field would be challenged through individualized instruction.

This area had a technical mean of 3.77 and a vocational mean of 3.03. The composite mean value of 3.48 produced a rank of 2.

**Listening effectively.**—This content area develops a skill for creative and effective listening. The process requires practice in concentration, awareness to detail, and organization of sequence and pattern.
Listening received a mean value of 4.68 for technical personnel and 4.21 for vocational respondents. The composite mean was 4.50, giving it a rank of 5.

**Comprehension of concise language.**--This area emphasizes the specific nature of technical-vocational language. It requires precise interpretation of a technical vocabulary and differentiation between specific definition and technical connotation. This content is concerned with reading instructional writing, such as reports, directions, and descriptive manuals.

Technical respondents had a weighted score of 245, which produced a mean of 5.59 and a rank of 7. Vocational respondents had a mean of 5.00 and a rank of 6. The composite mean for technical and vocational respondents was 4.93, creating a priority rank of 6.

**Main idea categorizing.**--This topic provides a valuable tool for organizing notebooks and manuals. The purpose of the content area is to aid students in the development of skills which assist them in gleaning and ordering main ideas from written material. In a technical reading class this is accomplished by reading for content in technical material, separating the content according to main ideas, and organizing the ideas into functional patterns for further use.

Technical personnel ranked this area 6, while vocational respondents produced a rank of 9. The means were 4.95 and
7.46 respectively. The composite mean was 5.30, which produced a rank of 7.

**Determining significant details.**—This content area is distinguished from comprehension of concise language by the placement of emphasis on style of reading. Reading for detail is a process of skimming technical material for details specific to a task being performed. It would train students to read with speed and intent. The process allows the reader to deal with a great amount of material with concern for unique details.

Technical respondents had a mean response of 4.09 and vocational respondents had a mean of 4.50. This produced a high priority rank of 3 from the composite mean of 4.22.

**Reading charts and diagrams.**—This area concentrates on the development of a skill important to all technical-vocational programs. Charts and diagrams have a unique language and coding that requires specific training. The problem in the content area is the inability to generalize from one field to another. Although a general language may provide basic understandings, the singular nature of most charts and graphs is cumbersome in effective teaching.

Technical personnel responded with a mean of 5.95 while vocational respondents produced a mean of 7.21. The composite mean for both fields was 6.44, ranking the content area 9.
Spelling.--Spelling in a technical-vocational reading course is concerned with technical-vocational terms. It would be designed to provide an understanding of the most recurrent difficulties. The business world puts great emphasis on spelling and simple rules which govern correct spelling can be acquired rapidly. The area would also include proper use of a dictionary.

Technical respondents ranked spelling 9 as a reading content area; however, it was given a priority of 3 as a writing area. Vocational respondents ranked spelling 7, with a mean of 6.21. The composite mean for spelling in a reading course was 6.52, giving it a rank of 9.

Recreational reading.--This content area stresses the importance of reading as a leisure time activity. It would concentrate on esthetic material such as novels and short stories but promote reading in technical-vocational journals as well. The purpose of the topic would be to stimulate awareness, provide cultural improvement, and emphasize reading for enjoyment.

Technical and vocational respondents perceived this area as the least significant. The area received a mean value of 8.22 and 7.92. The composite mean was 8.11 and the priority rank for both fields was 10.

A product-moment correlation coefficient was calculated to determine the extent of agreement between technical and vocational samples on reading priorities. A coefficient of $r = .89$ was established.
Summary of statements and suggestions by technical-vocational respondents on reading priorities.--The following statements and suggestions were taken from the reading questionnaire. The responses are random and unstructured.

Technical students must be able to comprehend and follow instructions, both written and oral. This could be accomplished by reading and following directions if the results lead to more efficient gleaning of relevant data.

There is a great need for stimulating reading. Therefore, whatever activities would create a more intense desire to read for meaning and understanding is important.

Technical vocabulary will be learned in technical courses. Most students need to practice basic reading skills. Recreational reading needs to be encouraged since such reading would provide the needed practice. Most technical students never read unless the material is assigned.

Good reading skills are an asset. The question is, when weighed against subject (trade) skill which is most important? Most employers take the trade skill, and the language skill can be learned later.

Reading for detail is probably the most important skill for technical students. All technical manuals are detailed, and it is necessary to read with accuracy.

Technical reading is very different from novels and comic books. The material is quite rigid and interpretation (or misinterpretation) could lead to expensive errors. For this reason, technical students should be taught strict adherence to detail.
### TABLE XI
RESPONSE TO READING SKILL SURVEY BY TECHNICAL INSTRUCTORS AND ADMINISTRATORS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Cumulative Value</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and following printed directions</td>
<td>147</td>
<td>3.34</td>
<td>1</td>
</tr>
<tr>
<td>Problem solving</td>
<td>165</td>
<td>3.77</td>
<td>2</td>
</tr>
<tr>
<td>Determining details</td>
<td>180</td>
<td>4.09</td>
<td>3</td>
</tr>
<tr>
<td>Vocabulary and terminology of each technical area</td>
<td>201</td>
<td>4.57</td>
<td>4</td>
</tr>
<tr>
<td>Listening effectively</td>
<td>206</td>
<td>4.68</td>
<td>5</td>
</tr>
<tr>
<td>Main idea categorizing (important in organizing notebooks and manuals)</td>
<td>218</td>
<td>4.95</td>
<td>6</td>
</tr>
<tr>
<td>Comprehension of concise language</td>
<td>140</td>
<td>5.00</td>
<td>7</td>
</tr>
<tr>
<td>Reading charts and diagrams</td>
<td>262</td>
<td>5.95</td>
<td>8</td>
</tr>
<tr>
<td>Spelling</td>
<td>296</td>
<td>6.72</td>
<td>9</td>
</tr>
<tr>
<td>Recreational reading</td>
<td>362</td>
<td>8.22</td>
<td>10</td>
</tr>
</tbody>
</table>
### TABLE XII
RESPONSE TO READING SKILL SURVEY BY VOCATIONAL INSTRUCTORS AND ADMINISTRATORS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Cumulative Value</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and following printed directions</td>
<td>78</td>
<td>2.78</td>
<td>1</td>
</tr>
<tr>
<td>Problem solving</td>
<td>85</td>
<td>3.03</td>
<td>2</td>
</tr>
<tr>
<td>Listening effectively</td>
<td>117</td>
<td>4.21</td>
<td>3</td>
</tr>
<tr>
<td>Determine significant details</td>
<td>126</td>
<td>4.50</td>
<td>4</td>
</tr>
<tr>
<td>Vocabulary and terminology of each technical area</td>
<td>132</td>
<td>4.71</td>
<td>5</td>
</tr>
<tr>
<td>Comprehension of <em>concise</em> language</td>
<td>140</td>
<td>5.00</td>
<td>6</td>
</tr>
<tr>
<td>Spelling</td>
<td>174</td>
<td>6.21</td>
<td>7</td>
</tr>
<tr>
<td>Reading charts and diagrams</td>
<td>202</td>
<td>7.21</td>
<td>8</td>
</tr>
<tr>
<td>Main idea categorizing</td>
<td>209</td>
<td>7.46</td>
<td>9</td>
</tr>
<tr>
<td>(important in organizing notebooks and manuals)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational reading</td>
<td>222</td>
<td>7.92</td>
<td>10</td>
</tr>
</tbody>
</table>
TABLE XIII
COMPOSITE RESPONSE TO READING SKILL SURVEY BY TECHNICAL-VOCATIONAL INSTRUCTORS AND ADMINISTRATORS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Cumulative Value</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and following printed directions</td>
<td>178</td>
<td>3.12</td>
<td>1</td>
</tr>
<tr>
<td>Problem solving</td>
<td>251</td>
<td>3.48</td>
<td>2</td>
</tr>
<tr>
<td>Determining significant details</td>
<td>304</td>
<td>4.22</td>
<td>3</td>
</tr>
<tr>
<td>Vocabulary and terminology of each technical area</td>
<td>323</td>
<td>4.49</td>
<td>4</td>
</tr>
<tr>
<td>Listening Effectively</td>
<td>324</td>
<td>4.50</td>
<td>5</td>
</tr>
<tr>
<td>Main idea categorizing (important in organizing notebooks and manuals)</td>
<td>382</td>
<td>5.30</td>
<td>6</td>
</tr>
<tr>
<td>Comprehension of concise language</td>
<td>140</td>
<td>5.38</td>
<td>7</td>
</tr>
<tr>
<td>Reading charts and diagrams</td>
<td>262</td>
<td>5.95</td>
<td>8</td>
</tr>
<tr>
<td>Spelling</td>
<td>470</td>
<td>6.52</td>
<td>9</td>
</tr>
<tr>
<td>Recreational reading</td>
<td>583</td>
<td>8.11</td>
<td>10</td>
</tr>
</tbody>
</table>

Reading skill priorities for technical respondents correlated r = .89 with vocational respondents.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

It was the purpose of this study to identify the communication skill needs and the approximate proficiency level of technical-vocational students in the communication skills. The investigation also included consideration of certain demographic variables as success predictors or inhibitors. Presently, little is known about content priorities in technical-vocational communication. Many special English and Communication courses have been adopted in colleges offering technical-vocational programs although definitive studies and empirical evidence to justify the adoptions do not exist. Consequently, this study has also investigated the content priorities as perceived by technical and vocational instructors and administrators.

Summary of Findings

Due to the descriptive nature of this investigation and the lack of information necessary for legitimate hypotheses about certain areas of concern, a research question, as well as hypotheses, was used. The summary has been stated in the familiar null hypothesis form. Each question requiring statistical procedure has been answered by the formal "rejected" or "failed to be rejected" statement
about the null hypothesis. The research question was investigated and discussed independently.

**Hypotheses**

Thesis hypothesis one (Chapter I) stated that there are no significant differences in the writing skills of university-bound students and those of terminal technical-vocational students upon completion of their initial college English course. The following hypotheses provide evidence which indicates that a significant difference does exist.

1. There is no significant difference between college parallel and technical-vocational students on the *Sequential Test of Educational Progress*—Writing.

   This statement was rejected at $p < .01$.

2. There is no significant difference between college parallel students and technical-vocational students in ability to classify items into common categories, group sentences into paragraphs, use transition, or choose effective sentences as measured by the *CEPT*.

   This statement summarized four subtests and failed to be rejected at $p > .05$.

3. There is no significant difference between college parallel students and technical-vocational students in the ability to understand analogies, select right words or synonyms with appropriate connotation, or recognize favorable and unfavorable connotations of words as measured by the *CEPT*.
This statement summarized three subtests which considered vocabulary. It failed to be rejected at $p > .05$.

4. There is no significant difference between college parallel students and technical-vocational students in the ability to use verbs, (parts, tenses, and forms), correctly as measured by the CEPT.

This statement failed to be rejected at $p > .05$.

5. There is no significant difference between college parallel students and technical-vocational students in the ability to limit a subject by choosing a topic of appropriate scope as measured by the CEPT.

This statement was rejected at $p < .05$.

6. There is no significant difference in college parallel students and technical-vocational students in the ability to identify items as main topics, subtopics or irrelevant as measured by the CEPT.

This statement was rejected at $p < .05$.

7. There is no significant difference in the grammar and mechanics proficiency level of college parallel and technical-vocational students as measured by the CEPT.

This null hypothesis was rejected at $p < .05$.

8. There is no significant difference between college parallel students and technical-vocational students on the College English Placement Test - Composite.

This statement failed to be rejected at $p > .05$. 
Thesis hypothesis two (Chapter I) stated that there are no significant differences in the reading skills of university-bound students and those of terminal technical-vocational students upon completion of their initial college English course. The following hypotheses provide evidence which indicates that a significant difference does exist.

1. There is no significant difference between the performance of college parallel and technical-vocational students on the Nelson-Denny vocabulary subtest.

   This statement was rejected at $p < .01$.

2. There is no significant difference between the performance of college parallel and technical-vocational students on the Nelson-Denny comprehension test.

   This statement was rejected at $p < .05$.

3. There is no significant difference between the performance of college parallel students and technical-vocational students on the Nelson-Denny reading rate subtest.

   This statement was rejected at $p < .05$.

4. There is no significant difference between the performance of college parallel and technical-vocational students on the Nelson-Denny total score.

   This statement was rejected at $p < .05$.

Thesis hypothesis three (Chapter I) stated that age does not significantly affect the reading and writing
skills of terminal technical-vocational students. The following hypotheses do not support the rejection of this statement.

1. There is no significant relationship between age and the performance on the Nelson-Denny Reading Test by technical-vocational students.

   The null rejected at p<.05.

2. There is no significant relationship between age and the performance of technical-vocational students on the Sequential Test of Educational Progress-Writing.

   This statement failed to be rejected at p>.05.

3. There is no significant relationship between age and the performance on the College English Placement Test by technical-vocational students.

   This statement failed to be rejected at p>.05.

Thesis hypothesis four (Chapter I) stated that ethnic background does not affect the reading and writing skills of terminal technical-vocational students. The following hypotheses indicate that a significant relationship does exist.

1. There is no significant relation between ethnic background and performance on the Nelson-Denny Reading Test by technical-vocational students.

   This statement was rejected at p<.01.

2. There is no significant relation between ethnic background and performance on the Sequential Test of Educational Progress-Writing by technical-vocational students.
This statement was rejected at $p < .01$.

3. There is no significant relation between ethnic background and performance on the College English Placement Test by technical-vocational students.

This statement was rejected at $p < .05$.

Thesis hypothesis five (Chapter I) stated that socio-economic background does not significantly affect the reading and writing skills of terminal technical-vocational students. The following hypotheses collectively reject this hypothesis.

1. There is no significant relation between socio-economic index and performance on the Nelson-Denny Reading Test by technical-vocational students.

This statement was rejected at $p < .01$.

2. There is no significant relation between socio-economic index and performance on the Sequential Test of Educational Progress-Writing by technical-vocational students.

This statement was rejected at $p < .05$.

3. There is no significant relation between socio-economic index and performance on the College English Placement Test by technical-vocational students.

This statement failed to be rejected at $p > .05$.

Research Question

The research question was concerned with where, according to technical-vocational instructors and administrators teaching
in the Tarrant County Junior College system, should reading and writing skill emphasis be placed. It is difficult to determine the communication skill training which would benefit all terminal technical-vocational students yet be diversified enough to provide for the unique skill needs of each individual technical-vocational program. Responses to reading and writing questionnaires by technical-vocational instructors and administrators established a sequence or priority rank for specific content areas. The content area rank could be considered in the development or revision of technical English curricula. The respondents were identified as technical or vocational according to the nature of their programs.

The distinction between technical and vocational programs is nebulous, but definition and occupational function do warrant a distinction. Technical alludes to functions generally mechanical or scientific, with a unique, specialized language. Vocation connotes a more general interpretation although the degree of specialization might be equally unique and the vocabulary quite specific. Using this program definition, a priority rank was established for each content area independently for the two program fields. A composite rank was finally determined for the combined fields.

**Writing skills.**—The composite priority sequence for technical-vocational respondents was as follows:
(1) sentence structure, (2) grammar and mechanics, (3) proper word choice in writing, (4) spelling, (5) paragraph construction, (6) oral communication, (7) developing an outline, (8) writing and interpreting forms and instructions, (9) writing summary interpretations of technical materials, (10) composition (essay writing).

The coefficient of agreement between technical and vocational respondents was $r = .69$.

Reading skills.--The composite priority rank as perceived by both technical and vocational respondents is expressed as follows: (1) reading and following printed directions, (2) problem solving, (3) determining significant details, (4) vocabulary and terminology of each technical area, (5) listening effectively, (6) main idea categorizing (important in organizing notebooks and manuals), (7) comprehension of concise language, (8) reading charts and diagrams, (9) spelling, (10) recreational reading.

The coefficient of agreement between technical and vocational priority perception was $r = .89$. The relatively high correlation coefficients for both reading and writing skills would indicate that technical-vocational professionals were in agreement with respect to communication skill needs.

Conclusions

1. One of the most apparent and important conclusions to be drawn from the research evidence is that there is a
definite communication skill difference between technical-vocational and college parallel students. Yet these students' curriculum in technical-vocational programs is highly specialized, academically demanding, and rigidly evaluated. This is evidenced by the fact that almost twice as many students achieve two-year liberal arts degrees than technical-vocational degrees although fifty per cent of Tarrant County Junior College-South Campus students are enrolled in technical-vocational courses. With performance levels considerably below those of their college parallel counterparts in all areas of communication skills, these students do need a specialized curriculum. Technical-vocational instructors' expectations also warrant a more performance-centered program. Since student backgrounds and program expectations in the area of technical communications are different, remedial programs geared to standard liberal arts degrees are not appropriate. Different teaching techniques and methods must be implemented.

2. This investigation also indicates that the content emphasis of the communications curriculum heretofore accepted as appropriate for specialized technical and vocational English courses may not be adequate to meet the specific needs of this group of students. In the past, it has been assumed that technical English courses should be primarily concerned with what English specialists concluded to be practical activities, such as report writing and business
letter writing, when, in fact, the labor market is looking for students who can write a simple sentence.

The Applied Communication course (English 1303), in which the study group for this investigation were enrolled, reflects a pragmatic approach to technical writing. The syllabus (Appendix D) indicates a curriculum structure consistent with the priority rank developed from the writing questionnaire wherein fundamental skills such as spelling, mechanics, sentence structure, and paragraph construction are emphasized. However, much consideration is given to subject material typical of a traditional technical writing course. The indication from technical-vocational instructors and administrators surveyed in this study is strong endorsement for emphasis on basic writing skills. Apparently realizing the limitations predominant among their students, these instructors favor a course resembling Developmental English (English 1203) as outlined in Appendix E.

3. The priority ranks suggested by respondents to the writing questionnaire (Appendix B) are consistent with the results of the statistical comparisons between university preparatory students and vocational-technical students. Assuming the need perceptions of technical-vocational instructors to be accurate, the terminal students' writing proficiency level must be elevated.

4. From the relatively high correlation between technical and vocational personnel ($r = .69$ writing, $r = .89$
reading), it can be concluded that a strong agreement exists with respect to priority needs. The consistency also indicates that these persons agree as to what the student needs are.

5. The highly significant differences between group means on all components of the Nelson-Denny Reading test, when considered simultaneously with the high correlation between the Nelson-Denny and the Sequential Test of Educational Progress-Writing, suggests an interrelationship of the two disciplines, reading and writing. It can be concluded that improving reading skills might significantly affect writing skills.

6. Age does not appear to be a factor in communication skills, although research documented in Chapter 1 indicated that writing skills deteriorate as age increases.

7. Ethnic background and socio-economic index did prove significant as an inhibitor. This condition should probably be attributed to sub-cultural and ethnic dialect, which encourages non-standard word selection and pronunciation. Communication unique to a sub-culture is acceptable and desirable in certain cultural contexts, but it is inhibitory to proper grammatical usage.

Although dialectal freedom is becoming more common in creative speech and writing, it is still rejected by the business and industrial society and cannot be condoned in an Applied English course.
9. Reading and writing skill proficiencies of students aspiring to terminal degree or certificate are distinctly different, upon entry into college, from students planning to continue college work beyond the two-year level.

10. The reading and writing needs of students aspiring to a terminal degree and students planning to continue work beyond the two-year level are similar with respect to fundamental skills, but concentration of effort must be made in the teaching and learning activities for the two-year terminal student who, by definition, will not continue to higher educational levels.

Limitations of Conclusions

Two major limitations affect the preceeding conclusions.

1. The College English Placement Test, although listed as a "power test," imposed time restrictions which appeared to make the results questionable. Very few students were capable of completing the test in the allotted time; this made results of the concluding sub-sections suspect. The final sub-section, grammar and mechanics, was important to this study in that this content area was ranked high by writing-questionnaire respondents. However, the difference between the group means was significant at \( p < .05 \).

2. The singularity of the populations sampled in this investigation limited generalization to the community college district used in the study. Inferences about the populations
could only consider terminal technical-vocational students as opposed to students planning to continue their education beyond the community college.

Recommendations

The recommendations made on the basis of this study are concentrated in three areas: administrative action in post-secondary planning, curriculum development, and suggestions for additional research.

1. One of the key findings of this study was the distinct difference in fundamental reading and writing skills of college parallel students and terminal technical-vocational students. It is the contention of the study that this difference is not due to deficiency in basic aptitude. Consequently, it follows that learning styles typical of technical-vocational students could account for relative deficiencies in certain areas, i.e. communications, which have not been consistent with their interests and aspirations prior to college entry. Based on the findings of this investigation, and research indicating increased emphasis on communication skills, it is recommended that pre-technical programs be established and implemented by technically oriented colleges. These programs should include special courses in English, Reading, Social Sciences, and other humanities, which would consider the unique skill needs of the technical-vocational population.
All variables used in this investigation were broad in scope and included an infinite number of additional variables; however, there was no consideration of treatment included in the study. Treatment should be a primary consideration of a total program charged with the task of developing adequate skill levels in technical-vocational support curriculum.

2. New techniques must be developed to teach communication skills, and new approaches should be investigated in an effort to determine the most effective teaching methods.

Weddington (2) has reported success at Central Piedmont Community College, using a communications laboratory which emphasizes individualized, personalized, and relevant study. The Central Piedmont Communications Laboratory was established in the fall of 1969 and charged with the task of developing communications skills in students in eight one-year terminal programs. The laboratory program was designed to meet the needs of comparatively low verbal students but with the capacity to upgrade the skills of all entering trade students, including those with average or advanced achievement in communications. Individualized laboratory instruction, as reported by Weddington, is one method which should be given consideration.

Ross (1) reported success in the development of reading skill using peer tutors. Gain not only occurred among the tutees but was significant for the tutors as well.
New methods of instruction must be developed to satisfy the needs of the growing population of terminal technical-vocational students.

3. The findings of this study are provocative enough to suggest additional research in many areas involving communication skills.

Research is necessary in the investigation of existing evaluation instruments necessary to identify communication deficiencies. Research should also include efforts to develop more effective instruments to measure the communication skills of poor readers.

Additional investigation should be initiated to discover how students with underdeveloped verbal skills learn in verbal areas. This might include learning styles and personalities. Cognitive mapping, which charts learning styles, should be investigated. Cognitive mapping suggests that individuals have distinct learning styles to which they will respond most effectively. Should this technique be proven reliable, it is possible that technical-vocational students might have a group learning style which would allow Communications classes to be taught in a totally different mode than Communications classes for college parallel students. Research should also be conducted to determine the most effective methods for dealing with dialect and phonemic deletion typical of minority and other sub-cultural groups.
The most vital need for continued research is the determination of specialized needs of technical-vocational students. Representatives from the academic community should go into the business and industrial community and investigate the communication needs of a college student.
CHAPTER BIBLIOGRAPHY


APPENDIX A

STUDENT DATA SHEET

Name ____________________________________________

Address __________________________________________

Age ______________________________________________

Social Security Number ______________________________

Telephone _________________________________________

Family or Personal Income per year
(Check one)

_____ below 2,000
_____ 2,000 - 4,000
_____ 4,000 - 6,000
_____ 6,000 - 8,000
_____ 8,000 - 10,000
_____ 10,000 - 12,000
_____ above 12,000

Ethnic Background

_____ Afro - American
_____ Anglo - American
_____ Mexican - American
_____ North American Indian
_____ Other
APPENDIX B

In an effort to determine the reading and writing skill needs of technical-vocational students, we feel that your suggestions would be extremely valuable. Your response will assist us in curriculum design and evaluation.

Please read the following topics and rank them 1-10 in order of priority as they relate to your particular program(s).

Thank you for your cooperation and prompt attention. Please reply through intercampus mail in the attached envelope.

READING SKILLS

1 - most valuable
10 - least valuable

vocabulary and terminology of each technical area

reading and following printed directions (to include visualization and sequence

problem solving (to include determining priorities and getting to the tasks)

listening

comprehension of concise language

main idea and categorizing (important in organizing notebooks and manuals)

determining significant details

spelling

reading charts and diagrams

recreational reading

suggestions
APPENDIX C

WRITING SKILLS

1 - most valuable
10 - least valuable

_____ grammar and mechanics
_____ sentence structure
_____ paragraph construction
_____ word choice in writing
_____ developing an outline
_____ essay writing (composition) research paper
_____ spelling
_____ oral communication
_____ writing forms and instructions
_____ written summaries of technical material

suggestions ________________________________________

_________________________________________________

_________________________________________________
English 1303, Applied Communications I
(Dept., Catalog No., Title of Course)

Semester and Year Submitted: Fall, 1974

Campus: South

Division: General Studies

Department: Applied Studies

Semester Hours Credit: Three

Clock hours devoted to class sections each week: Three

Clock hours devoted to laboratory each week: None

Total clock hours each week: Three

Prerequisites: None

Text: Title, Author, Publisher, Edition and Year:

SYLLABUS OUTLINE

I. Aims and Objectives

II. Methods and Procedures

III. Evaluation Techniques

IV. Grading System

V. Supplementary Texts and Reading List

VI. Comprehensive Outline of Subject Content
   A. Grammar and Mechanics
   B. Sentence Variety
   C. Point of View
   D. Paragraph Construction
   E. Word Choice
   F. The Outline
   G. Essay Prewriting
   H. Essay Assignments
   I. Reading Assignments
I. AIMS AND OBJECTIVES

English 1303 (Applied Communications I) is the first semester communications course designed specifically for the terminal technical-vocational student in either a two-year occupational program or a one-year certificate program.* The basic objective of this course is to develop and reinforce necessary communication skills, especially as they apply to the individual's major field. The course includes sentence structure, paragraphs, punctuation, report writing, and group activities.

General Objectives include:

1. Review of syntax and grammar as each applies to the development of meaningful, correct, concise sentences.

2. Review of the principles of combining sentences into organized paragraphs.

3. Review of the principles of correct punctuation and application of these principles to the student's writing.

4. Development of a series of short essays designed to strengthen student's writing ability and to broaden his understanding of the terminology of his major field.

---

*Course is often taken as an elective by students who want a basic course in English.
Specifically, at the end of the course, the student should be able to:

1. Demonstrate characteristics demanded in any vocational situation -- promptness both in attendance and turning in assigned work; willingness to cooperate in group work and with instructor and classmates; participation in all classroom activities; ability to follow written and oral instructions; and attention to details such as neatness.
II. METHODS AND PROCEDURES

Many of the traditional methods of teaching English composition are employed in the Applied Communications course. Presentations by the instructor, class discussions and analysis of sample paragraphs and essays, and extended practice in composition are all in continuous use. Because each student is expected to select for his writing assignments topics directly related to his occupational field, much individual initiative is encouraged. The instructor works with students on an individual basis in planning and evaluating written work. When feasible, students are encouraged to work in small discussion groups, particularly in analysis of sample paragraphs and essays.

The instructor may wish to assign brief oral presentations during the course; however, the first semester Applied Communications student, who is often a first semester junior college student, will profit more from developing his skills in reading and writing about his major field.
III. EVALUATION TECHNIQUES

No prerequisite or diagnostic test score is required for enrollment in Applied Communications I. The student who enrolls in this course is assumed to have chosen one of the occupational fields for his major; each student should be able to articulate clearly his career objectives. If the student has not selected a major field, the instructor should confer with him, ascertaining that he understands the "applied" nature of the course, i.e., applying the content of the communications course to the chosen occupational area for the purpose of increased proficiency in the practice of the occupation. The instructor should further determine that the student understands that the applied communications course is not intended to transfer to four-year institutions in lieu of freshman composition.

Diagnostic writing assignments at the beginning of the course will serve as a basis for any evaluation by the instructor. Each student will be measured on his progress in writing and in his ability to handle any communication situations structured by the teacher.

Progress will be specifically determined by:

1. essay and objective tests
2. appraisal of student's written work
3. assessment of student's handling of oral assignments
4. personal private consultation with individual student as occasion demands.
APPENDIX E
TARRANT COUNTY JUNIOR COLLEGE
COURSE SYLLABUS

English 1203      Developmental English
(Dept., Catalog No., Title of Course)

Semester and Year Submitted:  Fall, 1974
Campus:  South
Division:  General Studies
Department:  Applied Studies
Semester Hour Credit:  Three
Clock hours devoted to class sections each week:  Three
Clock hours devoted to laboratory each week:  None
Total clock hours each week:  Three
Prerequisites:  None
Text:  Title, Author, Publisher, Edition, and Year:
Selma F. Stonberg, From Start to Finish, Houghton Mifflin
Company, 1970
I. AIMS AND OBJECTIVES

The community two-year college with an open door policy admits students who, because of varying kinds and degrees of deficiency in both oral and written communication, are unable to survive the college parallel course in regular Freshman English. English 1203 (Developmental English) is recommended for those students whose ACT scores indicate that they need assistance in one or more of the necessary areas for adequate communication. The specific objectives of the course are:

1. To give the student mastery of the spelling of words he will use both in college and in broader adult activities.

2. To provide recognition of the basic parts of speech as these words function in the construction of clear grammatically correct sentences.

3. To insure recognition of the basic parts of sentences as they are seen in sentence patterns and to employ simple techniques (phrase and clause substitution for single parts of speech); subordination and coordination of larger blocks of words; and variation in sentence arrangement.

4. To supply fundamental patterns for the construction of paragraphs through selection of purpose, arrangement of supporting details, identification of thesis sentence, and order in supporting details.

5. To recognize the most frequently used order in which details in a paragraph can be arranged, to find the most consistent order for the nature of the material, to show the relationship of the parts of the paragraph to each other by demonstrating the naturalness of the order of arrangement, and to show the relationship of the parts -- words, phrases and even whole sentences -- to the entity of the paragraph.

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6. To organize paragraphs around one central idea by choosing a topic, limiting it, organizing material around a central idea, making an outline, and writing a short theme.

7. To read contemporary essays for beginning analysis of professional competency in writing.

II. METHODS AND PROCEDURES

Because the course emphasizes writing skills, much of the work consists of writing -- sentences, paragraphs, and finally the short theme. Grammar is taught as it relates to student composition and not as a formal discipline. The professional vocabulary of the traditional English teacher is avoided as much as is consistent with clarity of presentation. Theory is the servant of performance. The approach to improvement is tutorial, on a one-to-one pupil-teacher basis. In the latter half of the course, other students serve as student critics. Drill is used in the Writing Lab only.

III. EVALUATIVE TECHNIQUES

Evaluation emphasizes writing assignments requiring skill in sentence and paragraph composition. Progress is the essential criterion. The course stresses a wider frame of reference in the choice of writing subjects, an enlargement of vocabulary, and proficiency in organizing sentences according to various paragraph patterns. Finally, instruction centers upon the short expository theme.
IV. GRADING SYSTEM

If the student attains superior skill in course goals, he will receive A. If his improvement is better than average, he will receive B. If his progress is average, his grade is C. If he does not meet course requirements, he will receive D. The use of F is rare because if the student receives D, he must work through the course again.

V. COMPREHENSIVE OUTLINE OF SUBJECT CONTENT

I. PRE-WRITING

Finding, developing and limiting a topic
Finding facts and ideas
Building paragraphs

II. WRITING

Types of paragraphs: Taking a stand
Pro and Con
Change of Mind
Story with a Point
The Longer Paper

III. REWRITING

Revising the paragraph
Exact words
Too many words
Transitions
Grammar
Developing sentences
Spelling
Punctuation
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