A STUDY TO DETERMINE THE NEED FOR ADDITIONAL PROGRAMS
IN VOCATIONAL AND INDUSTRIAL ARTS EDUCATION
AT LAWRENCE D. BELL HIGH SCHOOL.

APPROVED:

[Signatures]

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A STUDY TO DETERMINE THE NEED FOR ADDITIONAL PROGRAMS IN VOCATIONAL AND INDUSTRIAL ARTS EDUCATION AT LAWRENCE D. BELL HIGH SCHOOL

THESIS

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

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Denton, Texas
January, 1968
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CHAPTER I

INTRODUCTION

Lawrence D. Bell High School is the only high school serving the Hurst-Euless-Bedford Independent School District at this time. The area served by the school district is located in the northeast section of Tarrant County, Texas. The school district occupies an area of approximately forty-four and one-third square miles of land. Major portions of this district are located within the limits of the town of Bedford and the cities of Hurst and Euless. A section of the district, which is predominately industrial property, lies within the limits of the City of Fort Worth.

The Hurst-Euless-Bedford Independent School District is located near the geographic center of the Greater Fort Worth and Dallas Metropolitan Areas, which includes all of Dallas, Collin, Ellis, Denton, Tarrant, and Johnson Counties. The industrial growth of this area has placed upon it a high demand for many types of trained employees. This industrial expansion has also been responsible for a population growth that is reflected in the steady increase of the scholastic enrollment of the school district.

Diversity of the employment needs for this area are many, with the largest demands probably being in the fields of electronics and aviation. Attempting to meet these community needs, coupled with the rapid scholastic growth, has created many school administrative problems.
Statement of Problem
This study was designed to investigate the needs at Lawrence D. Bell High School for a more extensive program of learning in the areas of industrial arts and vocational education, as perceived by the graduates.

Purpose of Study
The purpose of this study was to indicate if there exists a need for additional learning experiences in the area of vocational and industrial arts education at Lawrence D. Bell High School. The information acquired from the check list, combined with other related studies, should help establish valid guidelines for curriculum development in this area. This study should provide information as to whether or not the needs of the terminal student and the college preparatory student are dissimilar.

Basic Assumptions
Each high school must formulate its own aims to satisfy the needs of its youth, locally as well as nationally. In 1918 The National Commission on Secondary Education presented "The Seven Cardinal Principles of Secondary Education" (13, p. 10). From this beginning many educational groups and commissions have attempted to restate these original principles by elaboration or condensation. These underlying principles, though stated in many different forms have retained their basic meanings. Owing to the acceptance, by many educators, of these principles it may be assumed that they would provide a stable foundation for the educational aims of Lawrence D. Bell High School, and will be considered as such for the purposes of this study.
It is basic to assume that, owing to their nature, three of the cardinal principles of education may well be served through the industrial arts and vocational education curricula. These three basic principles are the ability to use leisure time wisely, the ability to establish and maintain a good home, and the ability to make a good living.

It is basic to assume that the school has a responsibility to provide learning experiences which will assist the student in the understanding of his environment within an industrial society. With the growth of mass production during and after World War II, industry has moved from the small, local "blacksmith" manufacturing shop to the present large and complicated engineering complex. This second industrial revolution, or industrial evolution, has made it impossible for the youth of today to pause at the door of the "blacksmith" shop and learn by observation many of the operations of industry. Industrial manufacturing with its highly sophisticated machines and high speeds of production has closed many of its doors to the observing eyes of the youth seeking knowledge of industrial procedures.

Continued industrial growth and development within the state of Texas, and more especially the areas between Fort Worth and Dallas, will perpetuate the enrollment growth of scholars for the Hurst-Euless-Pedford Independent School District. This growth of scholars will necessitate a continuous revision of curricula and housing requirements. It is basic to assume that the needs of youth must keep pace with the newer and changing demands of the community.

It is basic to assume that the vocational demands of the community will be increasing, not only in the presently existing areas, but for many
areas that have yet to be developed. This area is young and vigorous and the vocational demands will multiply rapidly. These changes will place a heavy demand on the area institutions of education.

The many projections of growth, both of population and of industry, aim at a basic assumption that the industrial arts and vocational education curriculums of the Hurst-Euless-Bedford Secondary Schools must be broadened. Automation is making many skills obsolete, and it is demanding new skills and understandings. Revisions will be necessary if the curriculums are to remain neoteric.

Limitations

This research is limited to a study of the graduates of Lawrence D. Bell High School for the years 1960-1964 inclusive. It is further limited to an analysis of 326 returned check lists. This study is further limited to an investigation of the needs for more extensive programs in vocational and industrial arts education.

Background and Significance of the Study

The earliest of documents reveal that some form of industrial education has existed from the dawn of history. One of the earliest findings of manipulative work took place in the ancient Jewish civilization. To the Jew, manual labor was often equivalent to prayer (11, p. 22). But with the rise of the Greek and Roman culture, laboring with the hands was considered menial. This lowly opinion of manual labor, which was always performed by servants or slaves, was to continue until the end of the Crusades.

With the Renaissance came a revival of trade and commerce, as well as a rebirth in the areas of science, literature, and art (11, p. 22).
This period was responsible for the guild system of artisan education or training. The guild established a system of education on three levels: apprenticeship, journeyman, and master (12, p. 133). These three levels are still in use by some artisan groups today.

The work of Pestalozzi and von Fellenberg was influential in structuring programs necessary to the demands of the Industrial Revolution. Out of the challenges of this period, three systems of industrial education evolved in Europe: the Russian system of manual training, the Sloyd system, and the arts and crafts movement. These systems of education were to have a profound influence on education in the United States (11, p. 22).

The Russian Polytechnic system was introduced by way of the Centennial Exposition in Philadelphia in 1876. Calvin M. Woodward, often called the "Father of Manual Training," was the originator and director of the first Manual Training School, opened in St. Louis in 1860. Some of the inspiration for the St. Louis School was derived from the Russian Polytechnic.

Manual training as originally structured was a broad area of all the manual skills, but under the outside influence of the Sloyd movement in Sweden, in the late 1860's and the 1870's, woodworking became the predominant area of instruction in the American schools. In later years manual training became almost synonymous with woodworking.

As envisioned by Woodward and others, manual training was to become a part of general education and not a vocational education training shop. With the appearance on the educational scene of John Dewey and his tremendous impact against a purely verbal adult-based school curriculum, manual
training found an articulate spokesman and champion. In a magazine article in 1901, John Dewey commented:

The manual training movement has been greatly facilitated by its happy coincidence with the growing importance attached in psychological theory to the motor element. The old emphasis upon strictly intellectual elements, sensations and ideas, has given way to the recognition that a motor factor is so closely bound up with the entire mental development that the latter cannot be intelligently discussed apart from the former (3, p. 74).

With the influence of Dewey, the Sloyd system and the arts and crafts movement, manual training gave way to a new name, manual arts. Charles Bennett was one of the first to use the term manual arts and a series of his magazine articles were published in book form in 1917 (8). Bennett's book was published the same year the Smith-Hughes Vocational Act was passed.

The shift to industrial arts from manual arts was accomplished through the new emphasis led by Dewey, Bonser, Richards, and Russell, from a predominance of tool skills as ends within themselves, to providing educational orientation to an industrial culture. These men supported industrial arts for its general educational value (7, p. 21). The influence of the Dewey-Bonser forces was tempered by the vocational education movement started in 1906, which culminated in the passage of the Smith-Hughes Act in 1917.

Many educators have placed industrial arts into the psychology of liberal education. There is little doubt as to Woodward's meaning of "liberal," when he wrote:

I used the word "liberal" in its strict sense of "free." No education can be "free" which leaves the child no choice, or which gives a bias against any honorable occupation; which walls up the avenues of approach to any vocation requiring intelligence and skill. A truly liberal education educates for all spheres of usefulness; it furnishes the broad foundation on which to build the superstructure of a happy, useful, successful life (14, p. 22).
These early statements of Woodward laid the foundations for the principles and objectives of industrial arts education in the public school system of the United States.

The industrial arts, as a component part of "liberal" general education, should be a part of the learning experience of all students. With its philosophy of industrial understanding, industrial arts education can help the individual to a better understanding of the society in which he is expected to be a productive part, to have a clearer conception of products, the skills necessary to produce, recognize quality in consumer goods, and to appreciate good design.

Vocational education, as a part of the total school program, has had the assistance of the federal government since the passage of the Smith-Hughes Act of 1917. This partially subsidized program of education has been expanded by the passage of such subsequent measures as the George-Barden Act of 1946, the National Defense Education Act of 1958, and the Vocational Education Act of 1963. With the passage of each new legislative act the government aid to vocational education has provided for more flexible and broadened areas of instruction.

The final decision as to which subject areas best serve the objectives of the local schools is an administrative function. The administrative and supervisory problems are many and varied in an area such as the Hurst-Euless-Bedford School District. The main purpose of any school should be to serve the community through the education of its youth, and this purpose is accomplished through the curriculum offered. The organization of the curriculum can best be achieved through an interaction of
the community, the administrative specialists, the classroom teacher, and
the subject student himself.

One of the best places to find out the needs of youth is from the
youth himself. Follow-up studies require time, effort, and money, and all
too often the administration is unwilling to make the necessary investments.

In his publication *A Basic Text for Guidance Workers*, Erickson stated:

> Many school people are beginning to realize that much can be learned from former students, employers, parents, and citi-
> zens generally. . . . Follow-up studies have contributed to this developing concept . . . of going beyond the four walls
> of the school to discover the need of students, evaluate the program of the school . . .

> . . . Follow-up studies help to discover many problems students face as they leave school and begin work, go on to
> institutions of higher learning, or undertake home responsibilities. . . . Equally important are reports obtained from
> high-school graduates who go on to trade schools, business colleges, junior colleges, or technical institutes. . . . .

> The effectiveness of the instructional program of the school, including vocational training and try-out, can also be
> checked through follow-up studies. Whether or not students use the vocational skills learned in school can be determined
> . . . It can be generally asserted that no substitutes for follow-up studies can be found . . . Every school has its own
> characteristics and outlets, which should be studied as a basis for curricular planning (5, pp. 389-392).

It is believed that the information contained in this study will be of value to the school administration. The counselors and curriculum planners should find some useful materials contained in the aggregate statistics of the study concerning the industrial arts and vocational needs of the students.

Related Studies

There have been numerous follow-up studies made of both high school and college graduates. Some of the studies are of a rather general nature,
while others were more restricted to specific areas of learning. None of
the studies examined served the purpose of this study, but in some instan-
ces they reinforced the findings.

In his study of 1964, Harding (6) sought the opinion of some of the
high school graduates as to what extent their school training facilitated
their adjustment to family living, vocations, religion, politics, and other
social affairs. The study used the descriptive survey method with a thirty-
three per cent sampling of each class included in the study. A return of
seventy-four per cent was attained from the questionnaires. It was deter-
mined that only twenty-eight per cent of the graduates entered college.
The subjects most frequently recommended for addition to the curriculum
were vocational education, family and sex problems, Reserve Officers'
Training Corps, and additional spelling and composition. The male gradu-
ates indicated that English and mathematics, in that order, were the most
rewarding subjects of their high school experience. Harding recommended
from his findings an improved vocational guidance program, and also he
stated a need for periodic follow-up studies to be made of the high school
graduates.

McKnight (9), in his study of male graduates with a minimum of two
years of industrial arts, used two separate periods of time. The study
covered the periods of 1935-1941 inclusive and 1945-1948 inclusive. There
were 218 respondents to the check list for a percentage return of seventy-
two per cent. The returns rated English and speech as having a high voca-
tional value, while foreign languages were rated very low.

Peterson (10) in 1961 asked for general criticism in his questionnaire,
which produced some interesting results. There had been a community and
school controversy during the years covered in his survey, and the effects were reflected in the answers of the respondents. The graduates were very critical of the qualifications of the faculty members. Other frequent criticism concerned low scholastic standards, lack of interest in the student by the teacher, and a laxness in discipline. English, typing, and mathematics were rated as the most useful subjects by both college and non-college respondents.

The study made by Barre (1) in 1957 was somewhat limited by the low per cent of respondents. This type of response is typical in an area comprised of a highly mobile populace. This study had a finding which has been common to a majority of the follow-up studies reviewed. It was determined that a strong need existed for additional guidance counseling, particularly in the area of vocational training. It was also determined that the areas of industrial arts should be expanded and existing programs studied for improvement.

The survey study of Technical High School graduates, conducted by McAbee (8) in 1954, shows that the programs of instruction for the vocational students need to include a variety of non-technical courses. The respondents listed a need for more mathematics and English. The need for increased counseling was also indicated, but the respondents showed little interest toward adding home economics to the school program.

Duffey (4) limited his study to the graduates of the vocational department of the Pontiac, Michigan, High School. The large number of returned check lists, eighty-five and four-tenths per cent, gives credence to his study. He found that the greatest influence on the student for enrollment in the vocational programs was from the student's parents,
twenty and three-tenths per cent. The second strongest influence on the
student's choice, nineteen and eight-tenths per cent, was credited to the
junior high school industrial arts teacher.

Duffey also found that the graduates felt that they should have re-
ceived more training in skills, related trade areas, and additional trade
practical experiences. The graduates suggested that the curriculum could
be improved by providing more college preparatory courses, more mathe-
matics, additional technical information, and a more practical course in
English.

Other studies of a similar nature to this study were reviewed, but
they did not add relevant information. Several of the findings in the
preceding studies were similar, as well as some of their conclusions.
The strongest recommendation common to most of the studies reviewed was
for a definite enlargement of the guidance program, more especially in
the area of vocational guidance.

Definition of Terms

In the interest of clarity the following definitions are used for the
purposes of this study:

Vocational education.—Is construed to include the instruction in all
areas approved by the state plans for allocation of programs of vocational
education, and further being those eligible to receive federal assistance.

Industrial arts.—Subjects of instruction that are considered a part
of "general education" and are interpreted in Texas Education Agency Bulle-
tin number 615.

General education.—As used in this study, it shall relate to all
learning programs that deal with the needs common to all students.
School administration.—This term shall refer to the salaried administrators of the local school district.

Curriculum.—As used in this study, it shall refer to the total learning processes that are under the direction and supervision of the Hurst-Euless-Bedford independent school.

Scholastic.—This term refers to the scholars of the local school.

Laboratory.—The term laboratory as used in this study shall refer to a room with special equipment used for demonstrations or to perform experiments in the areas of general education.

Shop.—This refers to a room furnished with specialized equipment used for the purposes of teaching technical skills.

Academic.—This includes the common learning subjects of English, mathematics, science, and social studies principally offered as college preparatory subjects.

Respondent.—This refers to those persons who have returned the check list for the study.

Vocationally oriented.—In this study this term shall refer to those subjects that could apply directly toward a trade skill and shall include such subjects as industrial arts, home economics, and all business subjects.

Organization of the Study

There are five divisions of this study which are organized into chapters as follows:

Chapter I is an introduction to the study and consists of a statement of the problem, basic assumptions, limitations, the background and
significance of the study, related studies, and the definition of terms. The background of the development of the area and the formation of the independent school district is presented in Chapter II. Chapter II also reveals the curriculum revisions and additions from 1960 to 1966.

The development of the check list and the means of collecting the data are discussed in Chapter III. The use of data from the students' permanent records is also reviewed.

Chapter IV contains the tabulation and interpretation of the data collected for the purposes of this study.

The summary, findings, conclusions, and recommendations of the study are presented in Chapter V.


CHAPTER II

BACKGROUND OF SCHOOL DISTRICT DEVELOPMENT

Community Growth

In this study no attempt is made to pursue the history of the school district prior to the year 1951. The Bell Helicopter Corporation appeared on the scene during that year and provided the explosive ingredients that have led to the present growth rate and development of the area. At that time three separate communities existed in the area now comprising the Hurst-Euless-Bedford Independent School District.

Hurst and Bedford were very small unincorporated villages, each with less than two hundred population. Euless had a slightly larger population, and due to the proximity of the Fort Worth (Amon Carter Field) airport, it had incorporated into a township.

With the opening of the Bell Helicopter facilities, Hurst soon embarked on a minor construction boom. The growth within the area was basically concentrated in Hurst. The rate of population growth was orderly and at a fairly constant rate, never approaching an overrunning boom. Excellent planning assured that all necessary facilities were never extremely over-stressed. It soon became evident that Hurst would be the leader in the development of the area.

Euless was the second community to feel the impact of the area's industrialization. Following the Bell Helicopter Plant into the area were many small manufacturing and servicing organizations. Menasco Manufacturing Corporation located a branch of its facilities immediately to the south of Euless.
Bedford, with no rail or major highway access, has little or no land areas desired by manufacturers. With this handicap Bedford has been the last community to show development. Bedford's growth has been confined to the sections that are adjacent to developing portions of the other two communities.

Consolidation of Hurst and Euless Independent School Districts

The area comprising the school district not only included the three communities of Hurst, Euless, and Bedford, but it was made up also of three separate school districts bearing the same names until 1954. Hurst and Bedford were each common school districts. Euless, at this time, was the only one that operated as an independent school district.

On December 9, 1954, by a vote of the qualified voters, the Hurst Common School District became an independent school district. The independent school districts of Hurst and Euless were then consolidated on January 22, 1955, forming the Hurst-Euless Independent School District. At this time the patrons of the Bedford Common School District chose not to join in the consolidation with the other two schools.

Annexation of the Bedford School District

Early in 1958 a group of Bedford citizens petitioned for an election to qualify for annexation by the Hurst-Euless Independent School District. The Hurst-Euless School District was then in its third year of operation. The first election failed by a narrow margin. A new petition was presented, and on November 1, 1958, the Bedford School District was annexed to the
Hurst-Euless Independent School System (2). The name of the district was subsequently changed to the Hurst-Euless-Bedford Independent School District.

The independent community feelings of some of the citizens of the Bedford School District were self evident by their actions relative to the delays preceding the annexation of the Bedford school by the Hurst-Euless Independent School District. If these attitudes are still in existence, they are having little or no effect on the continuing growth and improvement of the Hurst-Euless-Bedford Independent Schools.


The Hurst-Euless-Bedford Independent School District encompasses an area of 44.31 square miles. This represents the combined school district areas of Bedford (9.78), Euless (21.23), and Hurst (13.30). The school district is bounded on the south by the Trinity River. The eastern limit is the Dallas-Tarrant County Line. From a western limit at Calloway Road and State Highway 183, the district line continues in a northeasterly direction to a junction with State Highway 121 near Colleyville. The northern limits extend from State Highway 121 east to Bear Creek, then in a southeasterly direction to the county line. A map of the Hurst-Euless-Bedford Independent School District is presented in Appendix A.

In 1955 the permanent properties of the three school districts consisted of four small schools. The newest structure at that time was a new Hurst school which was to form the main core of what is now the Hurst Junior High School. From this beginning, the combined districts in 1965 had sixteen permanent buildings valued in excess of $10,500,000.
In the school year of 1255-56, the total number of scholastics was 1,413. Within five years the enrollment had grown to a total of 4,418, and in just five more years it had grown to 11,610. The Hurst-Euless-Bedford Independent School District is now ranked thirty-fifth in enrollment in the state school districts. It has been estimated that the school district will have a scholastic enrollment in excess of 17,000 by the school year 1969-70 (3, p. 4).

The total number of persons employed by the school district for the school year 1955-56 was 76. The classroom teachers accounted for 48 of this total. Five years later the total employment was 324, with classroom teachers numbering 200. In the school year 1965-66 the total employment had risen to 701, with 460 of this number being classroom teachers.

The assessed tax valuations have seen a continuous increase, from $14,501,000 in 1955 to $108,466,500 in 1965. This valuation growth has not kept pace with the scholastic increase. The tax valuation per capita enrolled in 1955 was $10,226. The per capita valuation for 1965 was $9,342, a drop of $884. The lowest per capita valuation occurred in 1963, when it dropped to $9,183. These latter figures are below the $10,000 recommended by the Texas Education Agency. The year 1960 was the last year that equaled or exceeded this recommendation (1).

The salary of the classroom teacher has seen continuous improvement since the formation of the independent school district in 1955. The beginning salary schedule for the school year 1955-56 was $3,275 for a Bachelor's and $3,500 for a Master's degree. By the school year 1965-66, the salaries for the beginning teacher had reached $4,839 for a Bachelor's degree and $5,145 for a Master's. The differential above the state minimum
salaries had risen from $470 in 1955-56 to $735 in the school year 1965-66. These salaries have been competitive with the other school systems located within the Dallas-Fort Worth metropolitan area. The Hurst-Dulles-Bedford Independent School District has been able to secure accredited teachers for all positions each year since its formation (1, p. 10).

Curriculum Development, 1960 to 1966

Many improvements in the high school curriculum had been introduced prior to the beginning of the school year 1959-60. The steadily increasing secondary school population was making a broader curriculum feasible. Sixteen credit units were required for graduation. The required credit subjects included four units of English, two units each of history, mathematics and science, and one unit of physical education.

A complete business department had been added to the curriculum. Mathematics was offered through plain geometry and trigonometry. Chemistry, biology and physics were offered in the science department. The only vocational subject available was in home economics. Industrial arts was offered in the areas of woodworking and drafting.

In the school year 1963-64 the vocational offerings were increased by the addition of distributive education. The number of credits required for graduation was raised to eighteen and one-half.

In the fall of 1964 the school district, with the assistance of the Texas Education Agency, conducted a survey. On the basis of the data collected during the survey, it was determined that the establishment of vocational education programs in a variety of fields was justified. A summarization of the projected need for employees during the two year
period beginning in 1965 is presented in Figure 1. This report showed that the two-year projected needs for new employees in major occupations included 1,370 in skilled, 377 in distributive, 196 in technical, 147 in office, and only 20 in health occupations (3, pp. 22-23). As a result of these findings, the school board authorized the superintendent to proceed with plans to supplement the vocational offerings at L. D. Bell High School.

The fall of 1965 saw L. D. Bell High School located in its new building. All laboratories were furnished with new equipment, and the mathematics department was equipped with an overhead projector and screen for each room. With the opening of school in these new quarters the required units of credit necessary for graduation were increased to twenty. The required subjects are English, social studies, mathematics, science, and physical education. The student is required to take four units of English, but he is only required to pass three for credit. Two and one-half credits are

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<td><img src="chart" alt="Technical Jobs" /></td>
</tr>
<tr>
<td>Office</td>
<td><img src="chart" alt="Office Jobs" /></td>
</tr>
<tr>
<td>Health</td>
<td><img src="chart" alt="Health Jobs" /></td>
</tr>
</tbody>
</table>

*Fig. 1—Need for new employees in the Hurst-Euless-Bedford School District, 1965-1967.*
required in social studies, including one-half credit in civics. The
requirement in mathematics is two credits. Two credits are required in
science, but one unit may be omitted if the student has credit for a lab-
oratory science in the seventh and eighth grades. To complete the required
subjects, the high school student must complete either two credits in phys-
ical education or earn four credits in band.

In order to carry out the desire of the school board to increase the voca-
tional education offerings, it was necessary to make some changes.
Two rooms originally planned for industrial arts laboratories were equipped
for vocational education shops. The vocational shops were equipped, one
each, for electricity-electronics and machine metals. In addition to the
two vocational shops, one unit of vocational education was added in indus-
trial cooperative training.

The new vocational courses were each approved as one unit programs
by the Texas Education Agency. To be eligible for approval as a one unit
program, there must be two classes with a minimum approved student mem-
bership of thirty (4, pp. 28-29).

The industrial cooperative training unit includes one class period
of instruction each day at the high school and fifteen hours per week on
the job away from school. The school credit for industrial cooperative
training is two per year. The students enrolled in shop courses receive
three credits per year. These shop courses are scheduled for three
periods each day and are self-contained classes (4, pp. 65-72).

In the fall of 1966 two additional units of vocational education
were approved by the Texas Education Agency. One new unit was in coopera-
tive part-time vocational office education for which the students receive
two high school graduation credits. The other unit was vocational industrial drafting, and it was a self-contained class of three periods duration. The students enrolled in the drafting classes earn three high school graduation credits for each completed year.

The only industrial arts course available at the new high school was two years of drawing. The first year drawing course was introductory general drafting and requires no prerequisite. The second year of drawing was restricted to pre-engineering with a prerequisite of one year introductory general drafting. A course in general shop was offered in each of the junior high schools. This general shop course offers instruction in only two areas, drafting and woodworking.
CHAPTER BIBLIOGRAPHY


CHAPTER III

COLLECTION OF DATA

Development of the Check List

The informational data for this study were collected from the permanent scholastic records of the graduates and from a check list mailed to some graduates of the classes of 1960 through 1964.

It was agreed that a modified closed form check list would provide the factual data desired for the study. The check list type was modified by the addition of one open type question to stimulate a more personal appeal. The information requested on the check list was available from no other source.

The check list was designed in such a manner as to be placed on one side only of an eight and one-half by fourteen inch sheet. Each question was asked in a clear and unambiguous style. The printed portions of the check list were arranged in sequence to aid the respondents in recording their answers. Respondents were asked to use a minimum of time in completing the check list. A copy of the check list is included in Appendix C.

The check list was constructed to provide information that could be tabulated with ease. The tabulated materials furnish the necessary data for an analysis of the problem purposed in this study. The information furnished on the check list was that of the respondents only and was properly delimited to the study.
Compilation of the Mailing List

The mailing list was compiled directly from the permanent student scholastic files located at Lawrence D. Bell High School. Prior to the school year of 1962-63, very few of the student record cards show official evidence of graduation. Many of the cards lacked a summation of credits, making it necessary to summarize the student record card to determine if the student had the required sixteen unit credits necessary for graduation.

The records for the school years 1960, 1961, and 1962 were not segregated, making it necessary to examine each file to determine if it was the record of a graduate, or merely that of a withdrawn student, or a student who had been dropped. No official lists of the graduates or their rankings were found for the years preceding the graduates of 1963.

Many of the addresses obtained from the student record cards were vague and of little value. In many instances only a city name was given. Personal contacts and telephone calls to known students helped secure some of the mailing addresses. With the meager address information gathered from the student permanent record cards an attempt was made to verify or secure good addresses.

Due to many changes and restrictions imposed by the post office department, it was impractical to try to reach students through the process of forwarded mail. Parents of the graduates were telephoned where sufficient information was available. The Fort Worth telephone book was used to secure the telephone numbers. It was necessary to check all telephone numbers due to revisions of the telephone zones in the area. The telephone directory was also helpful in checking mailing addresses.
The local newspaper was used in another attempt to locate current addresses for 153 graduates. The result of the newspaper advertisement was very poor, with less than twenty usable addresses reported.

The final list of graduates was comprised of a total of 797 names. A total of 143 names was omitted from the final mailing list due to the fact that mailable addresses could not be established. The final mailing list contained 654 names and addresses.

Returns of the Check List

Of the 654 check lists mailed to graduates of the classes of 1960 through 1964, only 326 were returned in a usable condition. The post office returned 19 mailing packets with no forwarding information available. In addition to the 326 usable check lists, 4 were returned with the information in an unusable form. The usable returned check lists accounted for approximately 50 per cent of the total mailed list.

The respondents from the classes of 1962-63 and 1963-64 were used to develop data relevant to class standings. The only graduating lists and class standings available from school records are for these years. Of a total of 167 respondents for these two years, 62 of the graduates, or 37 per cent, were from the top one-fourth of the classes, and a total of 110 graduates, or 66 per cent, were from the top one-half of the classes. Only 14 per cent, or 23, of the respondents were ranked in the lower one-fourth of the classes.

Review of Student Records

The students' permanent records were reviewed and recorded to determine the choice of vocational subjects by the graduates from 1960 through
1964. Tables and percentages are contingent upon the information transcribed from the graduates' records.
CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

The purpose of this chapter is to present and analyze the data obtained from the respondents' check lists. The information obtained from the permanent high school records of the graduates was studied and utilized along with the check list data. The check list information is presented in tabular form to facilitate the analysis and interpretation of the data.

Information was sought pertaining to the vocationally oriented courses studied by the graduates while attending high school. Data from the returned check lists were used to determine the respondents' occupations and types of employment. The extended education of the respondents was presented in tabular form to assist in the relative analysis. An interpretation was made of the major subjects of those attending colleges or universities. The opinions and rating of the counseling program made by the respondents were recorded and analyzed. Respondents' ratings of selected subjects taken in high school were tabulated to assist in the interpretation of the data.

Occupation and Job Classifications

Data assembled from the returned check lists were used in the preparation of Table I in which the present occupations of the respondents are shown. Table I indicates that 95, or 29.2 per cent, of the respondents were students at institutions of higher learning. There were 163, or 50 per cent, indicating gainful employment. A total of 78, or 24 per cent,
of the respondents indicated that their occupation was that of housewife. Indicative of a high employment ratio, only 3, or .9 per cent, of the

TABLE I
PRESENT OCCUPATIONS OF THE RESPONDENTS

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Respondents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
</tr>
<tr>
<td>Student</td>
<td>95</td>
<td>29.2</td>
</tr>
<tr>
<td>Employed</td>
<td>163</td>
<td>50.0</td>
</tr>
<tr>
<td>Housewife</td>
<td>78</td>
<td>24.0</td>
</tr>
<tr>
<td>Unemployed</td>
<td>3</td>
<td>.9</td>
</tr>
<tr>
<td>Military duty</td>
<td>31</td>
<td>9.5</td>
</tr>
<tr>
<td>Others (unclassified)</td>
<td>4</td>
<td>1.2</td>
</tr>
</tbody>
</table>

respondents were shown as being unemployed. Active military duty was listed by only 31 of the respondents. The information shown in this table indicates that one-half of the graduates are employed and that nearly one-third are pursuing a higher education.

Certain job classifications indicated by the respondents are illustrated in Table II. Engineering was listed by 9 as being their present employment. Only one respondent indicated that he was employed as a draftsman. There were 19 respondents who designated their job classification as being a technician. Office clerk was listed as the job classification of 24 respondents, while 25 gave their classification as that of secretary and 10 indicated theirs as bookkeepers. There were 12 respondents who indicated retail sales as their job classification, with only one indicating his job classification as that of outside sales. The shop trades were the

...
job classifications indicated most often by the respondents. There were 34 respondents checking the shop trades category. Teaching was listed as

TABLE II

JOB CLASSIFICATIONS OF THE RESPONDENTS

<table>
<thead>
<tr>
<th>Jobs</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer</td>
<td>9</td>
</tr>
<tr>
<td>Draftsman</td>
<td>1</td>
</tr>
<tr>
<td>Technician</td>
<td>19</td>
</tr>
<tr>
<td>Office Clerk</td>
<td>24</td>
</tr>
<tr>
<td>Secretary</td>
<td>25</td>
</tr>
<tr>
<td>Bookkeeper</td>
<td>10</td>
</tr>
<tr>
<td>Retail Sales</td>
<td>12</td>
</tr>
<tr>
<td>Outside Sales</td>
<td>1</td>
</tr>
<tr>
<td>Shop Trades</td>
<td>34</td>
</tr>
<tr>
<td>Teacher</td>
<td>14</td>
</tr>
<tr>
<td>Construction</td>
<td>6</td>
</tr>
<tr>
<td>Others</td>
<td>36</td>
</tr>
</tbody>
</table>

the occupation of 14 of those returning the completed check list. Construction was indicated as the job for 6 of the respondents. There were 36 respondents who indicated a variety of job classifications other than those indicated in the check list.

By grouping the job classifications indicated in Table II, it was evident that the business office jobs, with a total of 59, accounted for the largest number of respondents. The skill trades, with 40 respondents, accounted for the second largest number of jobs. Professional job classifications accounted for a total of 23 respondents, divided between engineers and teachers. Jobs of a technical nature were indicated by 20 of the respondents.
Extended Education

Answers of the respondents concerning additional education beyond high school are shown in Table III by total and percentage. The check list data indicate 59, or 18 per cent, of the respondents have not extended their education since graduation. A total of 218, or 67 per cent, of the respondents designated an extension of their education by attendance at either a college or university. There were 40, or 12.2 per cent, respondents that have acquired additional education through enrollment in trade schools. Correspondence schools were chosen by only 6, or 1.8 per cent, of the respondents. There were 26, or 8 per cent, that made good use of their time while on active military duty by taking advantage of the various military service schools. On-the-job training was the vehicle for improvement which was employed by 38, or 11.6 per cent, of the respondents.

This table indicates that at least two-thirds of the respondents have spent some time in colleges or universities.

<table>
<thead>
<tr>
<th>Type Training</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>None</td>
<td>59</td>
</tr>
<tr>
<td>College-University</td>
<td>218</td>
</tr>
<tr>
<td>Trade School</td>
<td>40</td>
</tr>
<tr>
<td>Correspondence School</td>
<td>6</td>
</tr>
<tr>
<td>Military Service School</td>
<td>26</td>
</tr>
<tr>
<td>On-the-job Training</td>
<td>38</td>
</tr>
</tbody>
</table>
The number of years spent by the respondents extending their education since graduation from high school is shown in Table IV. There were 74, or 22.7 per cent, who indicated only one year of additional education, while 82, or 25.2 per cent, indicated 2 years. This table shows 43, or 13.2 per cent, of the respondents with 3 years extension. There were 35, or 10.7 per cent, who indicated that 4 years were spent in college. There were 9 respondents indicating 5 years, with 5 indicating 6 years of college work. This last item indicates that 5 of the respondents have been in the process of extending their education continuously since graduation from high school.

Table V shows the check list data relative to the educational degrees earned by the respondents. The degree of Associate of Arts was received by 3, or .9 per cent, of the respondents. The table indicates 22, or 6.8 per cent, were recipients of the Bachelor of Arts degree, while 15, or

<table>
<thead>
<tr>
<th>Number of years</th>
<th>Respondents</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>74</td>
<td>22.7</td>
</tr>
<tr>
<td>2</td>
<td>82</td>
<td>25.2</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>13.2</td>
</tr>
<tr>
<td>4</td>
<td>35</td>
<td>10.7</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>2.8</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>1.5</td>
</tr>
</tbody>
</table>
4.6 per cent, earned the Bachelor of Science degree. Only one of the respondents had completed the requirements for a Master of Arts degree.

Data pertaining to certification of some of the respondents are shown in Table VI of the study. It is indicated that 17, or 5.2 per cent,

TABLE VI
CERTIFICATES EARNED BY RESPONDENTS

<table>
<thead>
<tr>
<th>Certificates</th>
<th>Respondents</th>
<th>Number</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td></td>
<td>17</td>
<td>5.2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td>22</td>
<td>6.7</td>
</tr>
</tbody>
</table>

possessed the teaching certificates. There were 22, or 6.8 per cent, who held miscellaneous types of certificates, none of which were determined to have a direct relationship to the problems of this study.

The 67 per cent of the respondents who indicated attendance at a college or university were asked to designate their major subject. These data are shown in Table VII. There were 37, or 11.33 per cent, that
indicated their major subject to be in the field of education. Engineering was designated as the major subject for 33, or 10.1 per cent, of those answering the question. The field of concentration indicated by the greatest number of respondents was business with 62, or 19 per cent. Only one of the respondents designated agriculture as his major subject of study.

TABLE VII
MAJOR SUBJECTS OF RESPONDENTS ATTENDING COLLEGE

<table>
<thead>
<tr>
<th>Major subject</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Education</td>
<td>37</td>
</tr>
<tr>
<td>Engineering</td>
<td>33</td>
</tr>
<tr>
<td>Business</td>
<td>62</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1</td>
</tr>
<tr>
<td>Music</td>
<td>2</td>
</tr>
<tr>
<td>Science</td>
<td>20</td>
</tr>
<tr>
<td>Mathematics</td>
<td>15</td>
</tr>
<tr>
<td>General liberal arts</td>
<td>13</td>
</tr>
<tr>
<td>Home economics</td>
<td>2</td>
</tr>
<tr>
<td>Languages</td>
<td>11</td>
</tr>
<tr>
<td>Social studies</td>
<td>15</td>
</tr>
<tr>
<td>Industrial arts</td>
<td>3</td>
</tr>
<tr>
<td>Physical education</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>27</td>
</tr>
</tbody>
</table>

Music was the choice of only 2 for a major subject. There were 20, or 6.1 per cent, who indicated that their major subject was within the field of science. Mathematics was shown as the choice of 15, or 4.6 per cent, respondents. There were 13, or 4 per cent, who indicated the general liberal arts as the areas for their major subject. There were only 2, or .6 per cent, of the respondents naming home economics as their major subject. Languages were chosen by 11, or 3.4 per cent, as their choice.
for a major subject. The table shows 15, or 4.6 per cent, of the respondents who designated social studies as their choice. Only 3, or .9 per cent, chose industrial arts as an area for their major subject. Physical education was signified as the major subject by only 2 of the respondents. There were 27, or 8.28 per cent, that indicated other major subjects, but for the purposes of this study they were considered as a group.

Adequacy of Counseling at
Bell High School

The respondents were asked their considered opinion as to the adequacy of the counseling program at L. D. Bell High School. An analysis of the data is shown in Table VIII. In answer to the question, "Do you consider the counseling you received at Bell as being adequate?", 97.9 per cent answered. There were 146, or 44.7 per cent, who answered in the affirmative, while 174, or 53.2 per cent, chose the negative. A total of 95, or 29.2 per cent, of the respondents believed that any inadequacy in counseling could be attributed to a shortage of counselors. Those that considered
the counseling they received as improper, accounted for 32, or 9.8 per cent, of the respondents. There were 88, or 27 per cent, of the respondents who believed there was a need for better vocational counseling.

Rating of High School Subject

The respondents were asked to rate some specified high school subjects as to their importance to them since graduation. The data are presented in Table IX. There were 178, or 54.8 per cent, of the respondents who indicated English as the most important of the selected subjects.

**Table IX**

*Rating of Specified High School Subjects for Their Importance to the Respondent Subsequent to Graduation*

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Most Important</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
<td>Number</td>
</tr>
<tr>
<td>Mathematics</td>
<td>152</td>
<td>46.7</td>
<td>130</td>
</tr>
<tr>
<td>Science</td>
<td>81</td>
<td>24.9</td>
<td>133</td>
</tr>
<tr>
<td>English</td>
<td>178</td>
<td>54.8</td>
<td>113</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>21</td>
<td>6.4</td>
<td>54</td>
</tr>
<tr>
<td>Social Studies</td>
<td>29</td>
<td>8.9</td>
<td>153</td>
</tr>
<tr>
<td>Business</td>
<td>124</td>
<td>33.1</td>
<td>103</td>
</tr>
<tr>
<td>Industrial Arts</td>
<td>24</td>
<td>7.4</td>
<td>70</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>25</td>
<td>7.7</td>
<td>73</td>
</tr>
<tr>
<td>Physical Education</td>
<td>23</td>
<td>7.1</td>
<td>138</td>
</tr>
<tr>
<td>Home Economics</td>
<td>54</td>
<td>16.6</td>
<td>65</td>
</tr>
</tbody>
</table>

English was rated "important" by 118, or 35.2 per cent, while 17, or 5.2 per cent, designated it as being "not important." Rating second in the "most important" column was mathematics with 152, or 46.7 per cent, of the
respondents. There were 130, or 40 per cent, of them who indicated mathematics as "important" and only 20, or 6.8 per cent, rated it as being "not important." The business subject rated third place in the "most important" column, with 124, or 38.1 per cent, of the respondents. There were 103, or 31.6 per cent, who chose the "important" column for business while 61, or 18.7 per cent, of the respondents rated it in the "not important" category. Science received 131, or 49.9 per cent, choices as "most important," 133, or 40.8 per cent, as "important," and with 90, or 28 per cent, of the respondents rating it as "not important."

The foreign languages received the lowest ratings, with only 21, or 6.4 per cent, indicating "most important," while 175, or 53.9 per cent, of the respondents classed them as "not important." Physical education was rated "important" by 138, or 42.4 per cent, while 131, or 40.2 per cent, of the respondents classed it as "not important," and 23, or 7.1 per cent, indicated "most important." The fine arts was rated as "not important" by 153, or 47 per cent, and "most important" by only 25, or 7.7 per cent, of the respondents. Home economics and industrial arts received high percentages, 41.8 and 49.5 per cent, respectively, for "not important" ratings. The ratings on home economics and industrial arts reflected a weakness of the ratings as each of these subjects has a definite one-sex connotation. The social studies were rated highest in the "important" classification by 153, or 47 per cent, of the respondents, while 113, or 34.7 per cent, rated it as being "not important," and only 29, or 8.9 per cent, considered it as "most important."
Graduates Enrolled in High School

Vocationally Oriented Courses

The percentage of graduates enrolled in the various vocationally oriented subjects while attending high school are presented in Table X. There were 79 per cent of the graduates from the classes of 1960 to 1964 enrolled in business subjects while attending high school. The data

TABLE X

ENROLLMENT IN HIGH SCHOOL VOCATIONALLY ORIENTED COURSES BY THE GRADUATES OF 1960 TO 1964

<table>
<thead>
<tr>
<th>Courses</th>
<th>Enrollment Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Arts</td>
<td>36.2</td>
</tr>
<tr>
<td>Home Economics</td>
<td>41.0</td>
</tr>
<tr>
<td>Business</td>
<td>79.0</td>
</tr>
</tbody>
</table>

indicate that industrial arts courses were taken by 36.2 per cent of the graduates. The course offerings in home economics were enrolled in by 41 per cent of the graduates for the years 1960 through 1964.

Suggestions from the Respondents

Some of the responses to the request for helpful suggestions are summarized in Table XI. There were 174, or 53.4 per cent, of the respondents who made no suggestions. Recommendations to improve the counseling program at L. D. Bell High School were made by 40, or 12.3 per cent, of the respondents. A desire to have the curriculum up-graded was expressed by 47, or 14.4 per cent, of the respondents. The data furnished by 27, or 8.2 per cent, of the respondents were grouped under the one heading
TABLE XI
HELPFUL SUGGESTIONS MADE BY THE RESPONDENTS

<table>
<thead>
<tr>
<th>Comments</th>
<th>Respondents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per Cent</td>
</tr>
<tr>
<td>No suggestions</td>
<td>174</td>
<td>53.4</td>
</tr>
<tr>
<td>Improve counseling</td>
<td>40</td>
<td>12.3</td>
</tr>
<tr>
<td>Upgrade curriculum</td>
<td>47</td>
<td>14.4</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>27</td>
<td>8.2</td>
</tr>
<tr>
<td>Critical, not constructive</td>
<td>38</td>
<td>11.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>326</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

of miscellaneous. There were 38, or 11.7 per cent, of the respondents who made critical remarks that could not be classified as being helpful or constructive and were therefore omitted.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine if a need existed for additional learning experiences in the areas of vocational and industrial arts education at the Lawrence D. Bell High School. The data acquired from the check list combined with certain other related studies should provide valid guide lines for curriculum development in these areas. This study could provide information as to the similar needs of terminal students and college preparatory students.

In Chapter II, the formation of the Hurst-Euless-Bedford Independent School District is related. The development of the area is described from the announcement of the Bell Helicopter Corporation to locate a plant in Hurst to the year 1965. The development of the Hurst-Euless-Bedford Independent School District is related with the beginning of the Hurst Common School District in 1954 through the annexation of the Bedford Common School District in November, 1958.

The growth of the Hurst-Euless-Bedford Independent School District, both in fiscal and scholastics, is recounted in Chapter II. This chapter also contains information relative to the development of the curriculum for the years 1960 to 1966. Curriculum revisions have been made to keep pace with the growth and changing demands of the communities of Hurst, Euless, and Bedford.
In Chapter III the development of the check list is detailed as to the requested information and the reasons for using the modified closed form. The problems encountered in the compilation of the mailing list, due to inadequate student permanent scholastic records, are related. The development of the mailing list consisting of 654 graduates is presented in this chapter. The return of 326 check lists, for an approximate percentage of fifty, provided the information to be used in the study.

Findings

The following findings are presented on the basis of data gathered:

1. A total of 50 per cent of the respondents indicated that they were gainfully employed, and approximately 30 per cent indicated they were enrolled as active students.

2. The shop trades were shown to be the job classification for 34 of the respondents, while 59 indicated a classification of business office employees.

3. The data indicate that 67 per cent of the respondents have extended their education, since high school graduation, by attendance at a college or university.

4. There were 40, or 12.2 per cent, of the respondents who indicated they were the recipients of a college or university degree.

5. The data indicate that 53.2 per cent of the respondents rated the counseling program as inadequate, however, 29.2 per cent of them indicated a shortage of counselors as the reason for so rating.

6. It was revealed that the respondents rated English as the "most important" high school subject.
7. The foreign languages were rated as the least important of the selected list of high school subjects, this is further substantiated by other related subjects.

8. The data obtained from the high school records of the graduates indicate that 79 per cent had been enrolled for credit in business courses, 41 per cent had earned credits in home economics, and 36.2 per cent had taken industrial arts courses.

9. There were 18 per cent of the respondents who indicated no additional formal training after leaving high school.

10. Business was chosen as the major subject by 19 per cent of the respondents that indicated college attendance.

Conclusions

The following conclusions are based on the findings of this study:

1. The curriculum at Bell High School is college oriented, as evidenced by the percentage of graduates entering college, but it is also serving the needs of all the students.

2. It is evident that the business department is properly staffed and well equipped.

3. The students at Bell High School are familiar with the function of the counseling program and are in favor of expansion and improvement.

4. The English instruction at Bell High School is meeting the academic needs of the graduates.

5. The lack of appreciation for foreign languages is possibly due to a low percentage of participants in language classes.

6. The areas of employment indicated by the respondents show a need for more instruction relative to an understanding of the world of work.
Recommendations

On the basis of the findings and conclusions resulting from this study, the following recommendations are made:

1. The curriculum should be designed to allow a student maximum achievement according to his ability, and at the same time, be such that he will not feel inferior if he is not college oriented.

2. The language arts should be more closely related to the learning interests of the student so that he may receive additional motivation.

3. The counseling staff should be expanded to provide for a more realistic student load.

4. There should be at least one experienced vocational counselor included on the high school counseling staff.

5. Programs of comprehensive general industrial arts should be developed for the junior and senior high schools.

6. The vocational industrial education program should be expanded by a minimum of two full units.

7. A continuous follow-up study should be instituted to assist in keeping the instructional program attuned to the needs of the students.

8. It is further recommended that more attention be given to maintaining accurate scholastic records of the high school graduates.
APPENDIX A

MAP OF HURST-EULESS-BEDFORD INDEPENDENT
SCHOOL DISTRICT SHOWING FORMER
COMMON SCHOOL DISTRICT LINES
Dear Graduate,

I am conducting a follow-up study of some of the graduates of L. D. Bell High School as part of the requirements for a Master of Science Degree at North Texas State University. This study is being undertaken to determine if a need exists for curriculum revisions. It is through your experiences, as a student at L. D. Bell, that certain changes in the curriculum should be effected.

It is believed that you will appreciate the importance and significance of this study. Your assistance is requested in completing the enclosed form and returning it to me at your earliest convenience. I will appreciate it very much.

Assurance is given that your name will not appear in the study.

Sincerely yours,

C. H. McNeese,
Graduate Student

Approved and endorsed by:

Newell Odell, Superintendent

Frank Johnson, Principal
APPENDIX C

FOLLOW-UP STUDY OF GRADUATES

LAWRENCE D. BELL HIGH SCHOOL

DIRECTIONS: Please supply the information requested by checking ( ) the appropriate answer, or by filling in the blanks. PLEASE answer all pertinent questions.

1. Graduating class of __________

2. Date of birth ____________________________

3. What is your present occupation?
   a. ( ) Student
   b. ( ) Employed
   c. ( ) Housewife
   d. ( ) Unemployed
   e. ( ) Military duty
   f. ( ) Others ____________________________

4. If you are presently employed indicate your job classification.
   a. ( ) Engineer
   b. ( ) Draftsman
   c. ( ) Technician
   d. ( ) Office clerk
   e. ( ) Secretary
   f. ( ) Bookkeeper
   g. ( ) Retail sales (inside)
   h. ( ) Outside sales
   i. ( ) Shop trades (manufacturing)
   j. ( ) Teacher (subject)____________________
   k. ( ) Construction
   l. ( ) Others ____________________________

5. Since graduation from high school have you extended your education?
   a. ( ) No
   b. ( ) College -- university
   c. ( ) Trade school
   d. ( ) Correspondence school
   e. ( ) Military service school
   f. ( ) On-the-job training
   g. ( ) Others ____________________________
6. If your answer to Number 5 was affirmative, complete the following:
   a. Circle highest number of years
      1 2 3 4 5 6
   b. List degrees held__________________________
   c. Certificates______________________________

7. If you attended college, please check your major subject.
   a. ( ) Education (teacher)
   b. ( ) Engineering
   c. ( ) Business
   d. ( ) Agriculture
   e. ( ) Music
   f. ( ) Science
   g. ( ) Mathematics
   h. ( ) General liberal arts
   i. ( ) Home economics
   j. ( ) Languages
   k. ( ) Social studies
   l. ( ) Industrial arts
   m. ( ) Industrial education
   n. ( ) Physical education
   o. ( ) Others_____________________________

8. Do you consider the counseling you received at Bell as being adequate?
   a. ( ) Yes ( ) No
      Comments (If No, please check)
   b. ( ) Not enough counselors
   c. ( ) Improper counseling
   d. ( ) Need for better vocational counseling
   e. ( ) Others___________________________
9. Rate the following high school subjects as to their IMPORTANCE to you since graduation.

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<th>Subjects</th>
<th>Most Important</th>
<th>Important</th>
<th>Not Important</th>
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<td>Science</td>
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<td>Social Studies</td>
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<td>Home Economics</td>
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</tbody>
</table>

10. If there are any suggestions you care to make which might help the school be of greater service to future students, please write them here.
BIBLIOGRAPHY

Books


Articles


Reports


Publications of Learned Organizations

Public Documents

Texas Education Agency, Guide for Public Schools in Planning Programs of Vocational Education for In-school Students, Austin, Texas, May, 1965.

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