The purpose of the study was to investigate the effectiveness of area vocational secondary schools in Texas as it relates to participation, type of school, and sex. Two forms of the questionnaire were developed; one to be used by participants in area vocational school (AVS) programs and one for those not participating in any type of vocational training. Urban school systems were not included in the study of eight selected sample schools. The students sampled were 672 eleventh and twelfth graders, half participants in AVS programs and half non-participants. Males numbered 210 and females, 126. Almost two thirds of the participants planned to enter the work force immediately after graduation. Data compiled show participants felt their needs were met by the programs, but non-participants felt the participants needs were not being met, and they had no need of the programs themselves. General awareness of the program is high. The two groups share views concerning the counseling and guidance procedures. The type of school from which the student came influenced his view of AVS program effectiveness, but the two sexes showed a nonsignificant difference in perception of program effectiveness. A twelve-page bibliography is included. (AG)
Student Perception of the Effectiveness of the Area Vocational Secondary School Programs of Texas in Meeting Self-Perceived Interests and Needs

By LaVerne B. Wong

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY
STUDENT PERCEPTION OF THE EFFECTIVENESS OF THE AREA VOCATIONAL SECONDARY SCHOOL PROGRAMS OF TEXAS IN MEETING SELF-PERCEIVED INTERESTS AND NEEDS

A FINAL REPORT (CONTRACT #31337)

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Submitted to
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By
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FOREWORD

In very recent years, national priorities have been aimed toward career education and occupational development for youth in this nation. Realization has crystallized that the American way of life is predicated on the work ethic. Perpetuation of the democracy in which we live is contingent upon each member of society being able to make his contribution to a productive generation.

The goal of efficient manpower training to meet the supply and demands of the labor market is necessary. Another consideration which is mandatory is the individual, his needs, desires, and goals—and his perceptions concerning the world in which he lives and works. Youth is the greatest investment which this nation has. If in the process of meeting demands of a labor market, the needs and interests, of individual youths are ignored, an abused society must suffer the consequences in alienations, apathies, and perhaps aggressions. The more noble goal is to recognize and acknowledge youth, his perceived interests and needs and utilize this knowledge to create and develop programs which satisfy the individual and enhance the production of an upward bound society which encompasses the integrity and honor of work as well as the dignity of man.

Recognizing that vocational training is the means to an end, this investigation has been made to assess the effectiveness of vocational training in the secondary schools from the perspective of youth. With these results, there is the hope that youth who are interested in immediate entry to the world of work may be accorded their niche in
society. Finally, there is the observation that the young have a vast contribution to make as the consumers of these educational programs.

Acknowledgement is made to the countless individuals, some of whom cannot be named, who contributed to this effort. Included are the public school personnel who exhibited much enthusiasm for the AVS programs, who were eager for "their" schools to be included in this study. Some 700 students who provided data were most cooperative. Their optimism and regard for the programs in which they were participating were most refreshing.

The researcher commends the Department of Occupational Education and Technology of the Texas Education Agency for interest in and support of educational programs which are relevant for youth. Their support and cooperation in this investigation is acknowledged.

LaVerne B. Wong, Ph.D.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. VOCATIONAL EDUCATION AND THE STUDENT</strong></td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>2</td>
</tr>
<tr>
<td>Importance of the Study</td>
<td>3</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>5</td>
</tr>
<tr>
<td>Definitions of Terms</td>
<td>5</td>
</tr>
<tr>
<td><strong>II. REVIEW OF RELATED LITERATURE</strong></td>
<td>9</td>
</tr>
<tr>
<td>A Perspective of Vocational Education</td>
<td>9</td>
</tr>
<tr>
<td>Emergence of the Area Vocational School</td>
<td>18</td>
</tr>
<tr>
<td>Needs and Interests Relating to Vocational Programs</td>
<td>26</td>
</tr>
<tr>
<td>Effectiveness of the Area Vocational School Program</td>
<td>40</td>
</tr>
<tr>
<td><strong>III. METHOD OF PROCEDURE</strong></td>
<td>47</td>
</tr>
<tr>
<td>Objectives of the Study</td>
<td>47</td>
</tr>
<tr>
<td>Development of the Questionnaire</td>
<td>47</td>
</tr>
<tr>
<td>Field Test of the Instrument</td>
<td>49</td>
</tr>
<tr>
<td>Selection of Participating Schools</td>
<td>52</td>
</tr>
<tr>
<td>Diversity Among Participating Schools</td>
<td>54</td>
</tr>
<tr>
<td>Determining and Selecting the Student Sample</td>
<td>55</td>
</tr>
<tr>
<td>A Description of the Subjects</td>
<td>57</td>
</tr>
<tr>
<td>Administration of the Questionnaire</td>
<td>59</td>
</tr>
<tr>
<td>Compilation of the Data</td>
<td>60</td>
</tr>
<tr>
<td>Statistical Treatment of the Data</td>
<td>61</td>
</tr>
<tr>
<td>Summary of Procedures</td>
<td>62</td>
</tr>
<tr>
<td><strong>IV. PRESENTATION OF THE FINDINGS</strong></td>
<td>63</td>
</tr>
<tr>
<td>Program Effectiveness</td>
<td>63</td>
</tr>
<tr>
<td>Student Awareness</td>
<td>71</td>
</tr>
<tr>
<td>Counseling and Guidance Procedures Which Enhance the Awareness of AVS Program Offerings</td>
<td>79</td>
</tr>
</tbody>
</table>
Chapter

V. DISCUSSION AND CONCLUSIONS

Overview

Summary

Conclusions and Implications

Recommendations

REFERENCES
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student Immediate Plans Following Graduation from High School</td>
<td>58</td>
</tr>
<tr>
<td>2. Items Included in Overall Program Effectiveness Scores for Participators in AVS</td>
<td>65</td>
</tr>
<tr>
<td>3. Items Included in Overall Program Effectiveness Scores for Non-Participators in AVS</td>
<td>66</td>
</tr>
<tr>
<td>4. Mean Program Effectiveness Scores by Participation, Type of School, and Sex</td>
<td>67</td>
</tr>
<tr>
<td>5. Analysis of Variance for Program Effectiveness</td>
<td>69</td>
</tr>
<tr>
<td>6. Summary of Significant Comparisons Between Groups for Program Effectiveness of Receiving School Students</td>
<td>70</td>
</tr>
<tr>
<td>7. Summary of Significant Comparisons Between Means for Program Effectiveness of Groups of Sending School Students</td>
<td>71</td>
</tr>
<tr>
<td>8. Trichotomous Assessment of Participating Student Awareness</td>
<td>72</td>
</tr>
<tr>
<td>9. Trichotomous Assessment of Non-Participating Student Awareness</td>
<td>73</td>
</tr>
<tr>
<td>10. Degrees of Participator Awareness</td>
<td>75</td>
</tr>
<tr>
<td>11. Degrees of Non-Participator Awareness</td>
<td>76</td>
</tr>
<tr>
<td>12. Analysis of Variance for Student Awareness</td>
<td>78</td>
</tr>
<tr>
<td>13. Mean Student Awareness Scores by Participation, Type of School, and Sex</td>
<td>79</td>
</tr>
<tr>
<td>14. Method of Publicizing AVS Programs</td>
<td>80</td>
</tr>
<tr>
<td>15. Student Source of Information about AVS Programs</td>
<td>82</td>
</tr>
</tbody>
</table>
CHAPTER I

VOCATIONAL EDUCATION AND THE STUDENT

Increased numbers of students are graduating from secondary schools in Texas each year with plans to go to work if they can locate a job or an employer who will train them for a specific type of task. In some districts of Texas, where area vocational schools are in operation, programs have been developed and initiated to meet varying training needs of high school students in preparing for gainful employment.

Various school districts in the state are presently being served by area vocational schools. Implemented programs may be considered successful, from the standpoint of the student, to the extent that these programs meet their self-perceived needs and interests. In other words, student perception of the effectiveness of these vocational training programs for gainful employment is the key to meaningful education.

In the decade just passed, increased attention has been directed toward vocational education and development of programs to serve existing needs in this area. Investigations which focus on the students, their self-perceived needs and interests have
been very limited. In view of the interdependence of students and program offerings, it is essential that an assessment of the programs be made in terms of students' interests and needs.

Statement of the Problem

Are the self-perceived needs and interests of the students in the area vocational school program being met? In seeking a solution to this problem, this study (1) investigated the effectiveness of area vocational school programs as they related to participation and self-perceived interests and needs of the students both in the receiving and sending schools; (2) explored the level of student awareness of the area vocational school program and the opportunities for vocational development which it affords; and (3) explored counseling and guidance procedures used to enhance student awareness for vocational development.

Area vocational school program offerings have been based on manpower needs within geographical areas. In addition to meeting these needs, the writer believes that the values of the programs are measured by the degree to which they meet vocational self-perceived needs and goals of students. Heretofore, according to Venn (1967), man had to work to be able to provide food and clothing; however, work has become a psychological and emotional basis for man's role in the society in which he lives. Without a work role the individual has a minimal contribution to make to
society. He asserts:

Work should no longer be considered as the contribution of labor to the development of production; rather, work has become the basis for an individual's place in the modern western world... so we arrive at the premise that occupational education now must become a fundamental part of the total educational system for every individual (p. 34).

It is apparent that many school systems have acknowledged the importance of being as interested in every student who leaves high school to enter the world of work as they have been interested in those who go on to higher level of formal education.

Importance of the Study

Realization of the inadequacies of secondary educational programs in meeting the occupational self-perceived needs of youth is quite evident in efforts made toward changes and new programs implemented in recent years. The impact of these programs as they relate to the interests and perceptions of students has not been adequately assessed according to the literature. Focus in recent times perhaps has been directed toward a realistic goal of meeting occupational or vocational needs. However, the consumers of these educational programs—particularly at the secondary level—have had little involvement and input in the planning. Criteria for approval as an area vocational school includes the requirement for sufficient "number of available eligible students who desire, need, and are able to benefit from the programs..." (TEA, 1963). Unless programs are perceived as realistically meeting the needs
of students and of value to them in pursuit of their individual goals, it is not likely that they can be termed successful. Hence, the area vocational school can only be viewed as another mechanistic assembly line for the production of a labor force to meet the manpower needs of a status quo society. However, if area vocational schools can offer students meaningful and significant experiences in vocational development, success for these programs is assured. In this atmosphere occupational education via the area vocational school can achieve the crucial goal of restoring dignity and integrity to work and to every student in his selection of a career. Whether the student seeks a degree from a university or pursues technical or vocational training will have little import. Every person can hold status as a first class citizen and as a human being. Simultaneously, the area vocational school can serve as a vehicle for the production of skilled, competent craftsmen or technicians who are capable of entering the world of work and making a contribution.

Since meaningful programs in the secondary schools and in the vocational field are, in essence, contingent upon the self-interests, needs, perceptions, and attitudes of students and since schools are for students, it is extremely important that these factors be considered. Without the follow-up information concerning the impact of such vital programs and their effect upon students, constructive change (either in the programs themselves or in student or community attitudes) is not possible.
Limitations of the Study

All students of a county who are between the ages of 14 and 21 are eligible to take training through an area vocational school program; but there are certain provisions which must be met. The area vocational school program, in general, encompasses the last two years of high school. For this reason, only eleventh and twelfth grade students have been included in this study.

Area vocational schools in school districts which contain 20,000 or more scholastics were eliminated from consideration for the study. This limitation was imposed primarily because findings from within the urban environment as a result of size and program offerings would not be generally applicable to the majority of area vocational schools in the state. A further limitation was that each area vocational school included in the study have a minimum of ten students from sending schools enrolled in the program as indicated in a report to the Texas Education Agency, June 1972.

Definitions of Terms

Interest. Generally, interest denotes a desire to know, do, or take part in. The term, interest, in this study means a feeling of wanting to participate, put into words. Thus, throughout this writing, it denotes a stated feeling of the student.

Participation. Although this term carries the notion of being involved in or taking part in, used in this study the term connotes
enrollment. Membership within the area vocational school program constitutes participation.

**Area vocational school (AVS).** Policies that govern the approval of schools as area vocational schools define an AVS thus:

... as a minimum must provide a program of vocational education in five different occupational fields to meet the varying training needs of high school students in preparing for gainful employment; make available as needed special programs of occupational training for potential school dropouts and other persons having academic or other handicaps preventing them from succeeding in regular programs of vocational education; and provide programs for adults as needed to prepare them for employment or provide them training or retraining to increase their knowledge and skills in present employment (TEA, 1963).

In this study AVS refers to that phase of the area vocational school program that is directly related to the secondary school student who is presently enrolled in a public school and is under 21 years of age.

**Receiving school.** A receiving school is a public school that has met minimum standards and thus has been designated as an area vocational school.

**Sending school.** A sending school is a public school that has a written contract with an area vocational school which provides for tuition-free participation in the AVS programs for the eligible students in the school. It may be a school that is located in a county in which an area vocational school has signed an agreement to accept students from within the county and is entitled to County Available Funds on a continuing basis. A sending school may also be a school that has enrolled in its regular program, residents of
a county in which an area vocational school is in operation, who have attained the age of 14 years prior to September 1.

Program effectiveness. In general, as used in this study, the term indicates the degree (as measured on a scale [1-5]) to which the program, in the perception of the student, satisfies his vocational needs and interests.

Program effectiveness is evaluated by the following criteria:

1. Student participation in a program that contributes to his vocational objectives and established a foundation for further training upon graduation from the secondary school.

2. Student participation in a program that he believes is adequately preparing him for immediate entry into the world of work prior to or upon graduation from the secondary school.

3. Expressed interest by non-participator to enter the program because it will adequately prepare him for immediate entry into the world of work prior to or upon graduation from the secondary school.

4. Expressed interest by non-participator to enter the program to establish a foundation for his vocational objectives in order that he may continue his training upon graduation from the secondary school.

Student awareness. A generic definition of student awareness is knowing, realizing, consciousness. Student awareness denotes the student's having knowledge of, realizing and understanding the area vocational school program—its goals and objectives, the
offerings available, and the opportunities for vocational learning and experiences.

_Urban school systems._ School systems which enroll 20,000 or more scholastics are considered "urban" in this study.
CHAPTER II

REVIEW OF RELATED LITERATURE

A Perspective of Vocational Education

In recent years, according to Venn (1967), there has developed a recognition that the nation's welfare is fundamentally dependent upon learning to work. He makes these statements:

Vocational and technical education have recently assumed a new importance in this country. The dramatic rise in youth unemployment and underemployment, the shortage of badly needed personnel in many technical, semi-professional, and skilled occupations, the retraining and continuing education needs of workers displaced by automation, and the rising demand for new educational opportunities both at the secondary and postsecondary levels have forced a re-examination of this nation's longstanding neglect for occupational education (1964, p. v).

As a result of strident social problems in areas of employment a re-examination of vocational education has occurred and has led to passage of the Vocational Education Act of 1963 (U.S. Congress, 1963; Lannie, 1971). Many vocational educators (Evans, 1965; Shilt, 1964; Hurt, 1965; Kemp, 1965) look upon this legislation as a Magna Carta in the development of vocational education. Evans, et al. (1969), quoting from this legislative item, makes this declaration:

. . . the purpose of the federal grants to the states was to develop an adequate vocational education system so that persons of all ages in all communities of the state . . . will have ready access to vocational training or re-training which is of high opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training (p. 16).

Title VIII of the National Defense Education Act (NDEA) provides for area vocational school programs, and the Vocational Education Act of 1963 helps to solve some of the problems created by restrictive and obsolete facilities and curriculum. This is accomplished by providing federal grants to states for construction of new facilities and installation of up-dated equipment. A basic concept involved in the establishment of area vocational schools is that the cost of providing high quality programs to prepare students for gainful employment can be most easily and efficiently borne if the programs are organized and operated to serve large areas of the states rather than single localities (Russo, 1966). Arnold (1960) suggests that "time may well prove that Title VIII of the NDEA had a greater impact on vocational-technical education than any other event since the Smith-Hughes Act was passed in 1917" (p. 5). At the state level, House Bill 490 (Texas State Legislature, 1965), providing for the support of area vocational technical school programs, may hold a similar promise.

Vocational education appears to have experienced a cyclic relationship with general education throughout its history. According to Lannie (1971), student apprentices originally were taught useful employment in addition to civic and moral responsibilities.
During the Eighteenth Century the masters realized that they had minimal time for the teaching of non-vocational matters; consequently, students were sent to evening schools for the three R's. This was the initial indication of a separation of vocational and academic instruction in the United States (Evans, 1971). The early Nineteenth Century reveals a decline of vocational instruction, and schools focused their occupational instruction on the professions. Even at this stage instruction for professional work was, in general, available only for the upper classes. One of the very few who challenged this development was Robert D. Owen, who believed that studies in vocational areas such as agriculture and trade, should be included in the school curriculum and that social and economic distinctions within the educational arena should be eliminated. He suggested this could be done by, "combining mechanical and agricultural with literary and scientific instruction. By mak ng every scholar a workman and every workman a scholar [.sic]. By associating cultivation and utility, the productive arts and the abstract sciences" (Owen, p. 8). Economic limitations and opposition arising from the academicians made the inclusion of vocational education in the public schools very difficult. During the latter part of the Nineteenth Century Evans noted that the manual training program was instituted in the secondary school to revolve the cycle of combining general and vocational education. Since manual training did not meet the vocational training needs of students, a greater thrust for "real," improved
vocational programs ensued. The result was federal and state legislation which lent support to instruction in limited vocational areas such as homemaking and vocational agriculture. According to Evans (1971) the comprehensive high school concept was introduced but not implemented fully. As a consequence, most high schools gradually moved toward concerted efforts to serve college-bound youth exclusively; the vocational enthusiasts lamented the irrelevance of the general education programs. A reciprocal response of academicians was denial that vocational education had any legitimacy in public education. This viewpoint has been tenacious in the minds of educators and laymen alike for a century or longer. The establishment of the Civilian Conservation Corps and the National Youth Administration vocational schools in the late thirties reversed this movement and stimulated educators in the development of vocational programs (Lannie, 1971). Following World War II however, the drift away from vocational education became evident once again. The Vocational Education Acts of 1963 and 1968 apparently have brought about another change of direction.

A careful examination of the cyclic relationship of vocational and general education reveals that the cycle repeats itself once every generation. Evans, (1971) reiterates thus:

A cycle can be observed . . . : (1) establishment of a reasonably comprehensive high school, (2) gradually decreased emphasis on vocational education, (3) establishment of separate vocational schools, and (4) the re-establishment of comprehensive high schools which emphasize vocational education . . . (p. 58).
Vocational education has an extremely significant contribution to make to American education (Hammonds & Lamar, 1968; Evans, 1971). Hoyt (1970) contends that it will be extremely difficult to realize the full impact of this program and its contribution because of "the bigoted attitudes held by many students, parents, and educators toward vocational education" (Abstract). He also notes that although many individuals recognized the value of and need for vocational education, they oppose it for their own children. These references imply a negative, deprecating attitude of the general layman and perhaps many professional educators toward vocational education. It is unfortunate that such developments have occurred in the country which has revered the work ethic since its beginning. Although the need for well trained technicians and skilled workers exists, many view occupations which do not require the college degree as being less than desirable and having less status in society. Lunder & Ringo (1965) and Evans (1971) verbalize the lowered status of vocational education when they state that students of lower academic ability and those from lower class homes are significantly over-represented in programs of vocational education. Rice (1969) indicates that two factors have caused enrollments in area vocational school programs to be considerably below the level expected. One of these is the necessity of convincing superintendents and school board members of the value of vocational education. The second is the fact that almost fifty percent of the students, parents, professional educators, and
school board members have not heard of the area vocational school. He indicates that perception of the program and information concerning procedures, operation, and success of graduates weigh heavily on the success of the programs.

Weagraff, (1972) investigated factors which inhibit vocational education development in California. Two of the inhibiting factors identified bear a relationship to this study: (1) inadequate communication and interaction regarding vocational education among students, parents, vocational educators, legislators, other educators and lay citizen groups, and (2) the perceived low social status and prestige associated with vocational education. Other researchers substantiate the notion of low social status and prestige associated with vocational education. Marrah (1971) describes concerns of school officials and community leaders regarding the success of vocational education in serving students. Of momentous importance is the expressed concern of the vocational education stigma. In an evaluation of vocational-technical education programs in Hawaii, Edlin (1966) reports that these programs are viewed by key educational personnel as programs for students who do not plan to attend college. The overtones of socio-economic distinction reverberate.

An interesting thought on social status has been expressed. Evans (1971) makes these comments:

The fact that students of lower ability and from lower class homes are significantly over-represented in vocational
education is not necessarily bad if the choice is made by the students and not by the school. It would be detrimental if the school, consciously or unconsciously, designed curricula which promoted segregation by social class (p. 79).

If vocational education is to be effective in serving the needs of youth, Maiden (1972) contends that attitudes about it must change—from educators to laymen and, indeed, students. Another suggestion made is that the relationship between a vocation and education be emphasized very early in school life. In addition, vocational guidance should play a greater role than it does at the present time.

In a recent survey of school administrators in eight states regarding significant factors that influence enrollment in area vocational schools, Robertson (1972) indicates that the positive and cooperative attitude of administrators in the sending schools was identified as the most significant factor that had a direct relationship to student participation from those schools. This finding underscores the importance of improving communication and the establishment of better rapport between receiving and sending schools since these factors have an influence on student participation from sending schools.

There are recent indications that attitudes and perceptions are undergoing favorable change. A number of investigations report positive results from vocational studies. Heathman (1972) concluded that positive attitudes toward vocational education generally were held by school board members, superintendents, high
school principals, and state officials in New Mexico. Laymen however, indicated less positiveness than the professional educators. Moreover, in contrasting basic education to vocational education, Heathman noted that the negative stereotype frequently associated with vocational education tends to persist. A survey of 29,864 students and 15,463 parents by the Ohio State Department of Education (1971) revealed that both groups responded positively to vocational education and to educational programs that attempt to aid students in preparation for future employment and training programs beyond high school.

Another aspect of positiveness is shown in a willingness to expend more and more monies for such education. Increasing expenditures for vocational programs to aid the noncollege-bound youth was given overwhelming support by teachers and parents (Saris & Tyler, 1967). Roberts (1971) showed that students as well as teachers, administrators, parents, employers and high school graduates felt that students should receive specific training in order that they might go to work upon graduation from high school. For almost every student, college-bound youth included, there was a distinct expression of including on-the-job work experience in an area of vocational interest. Roberts reported that respondents in his study felt that most high school students, prior to graduation from high school, should acquire an employable skill.

Young (1972) measured and compared the attitudes of professional personnel in public high schools toward vocational education
in the state of Florida. These schools were served by separate area vocational-technical centers. Teachers showed a less favorable attitude toward vocational education than administrators and counselors. Further, Young found that the subject which teachers taught was related to the differences in attitudes.

In Oklahoma (Schultz, 1972) an attempt was made to determine the image of vocational education as perceived by the public. Results of the investigation showed that the general public had a more favorable perception toward vocational education than they did toward the other educational programs in operation. There was agreement that the vocational education program was attaining its goal of providing training for employment for students who desire, indicate a need for, and seek it.

The promise in vocational education programs is in their practicality. The emphasis on realistic goals of employability and earning a living may revitalize the educational process. Marland (1971) asserts that lack of interest in school experiences for a majority of students originates in the fact that learning environments and experiences are not satisfying and are not productive as they seek to satisfy basic needs in preparing for living. He suggests that vocational education may hold promise for alleviating some of the problems in education. He makes these assertions:

All public school educators share the guilt for the generalized failure of our system of education to equip our people to get and hold decent jobs . . . .

..................................................
Contrary to all logic and all expediency, we continue to treat vocational training as education's poor cousin. We are thereby perpetuating the social quarantine it has been in since the days of the ancient Greeks.

Since U.S. vocational fields were originally defined shortly before World War I as agriculture, industry, and homemaking, we have too often taught those skills grudgingly—dull courses in dull buildings for the benefit of what we all knew were young people somehow prejudged not fit for college—as though college were something better for everyone . . . (p. 22).

Marland offers alternatives by asking two questions. Shall society persevere in traditional practices which obviously are not meeting the needs of at least half of the youth in this country? Shall reformation of the entire system of secondary education be undertaken immediately to make possible a maximum contribution to individual and national life?

This brief overview of vocational education and its status has been included to provide a foundation and to describe the setting for the emergence of the area vocational school which is the tangible evidence of renewed interest in and emphasis on vocational and career development.

Emergence of the Area Vocational School

With the passage of the Vocational Education Acts of 1963, the establishment of such institutions as the existing area vocational school became possible. Apparently the inadequacies of traditionally routine and prosaic vocational programs were realized—at least by those who make legislation. Evidence of this can be found in the emphasis at the national level on manpower training and the provision
of vast sums of federal funds for their development and support. Under the provisions of this Act, federal grants are available to the States for construction of vocational-technical facilities to cover up to fifty percent of the costs involved. Funds allocated may be used in accordance with the approved state plan to "maintain, extend, and improve" existing facilities or to build area vocational schools. The term "area" significantly refers to schools that provide training for workers in industries of a defined geographic area. Having been given impetus through federal legislation, the area vocational school has been developed to serve all ages in all communities. It encompasses adult educational training and retraining as well as secondary programs (White, 1971). White also indicates that "a prime purpose for initiating an area school or for affiliating with an established one is to meet the needs of noncollege-bound students and to help satisfy the manpower needs of local business and industry" (p. 189).

An area vocational school serves as an extension of the general educational program in a community and therefore cannot exist as an entity unto itself (White, 1971). According to White, "... the area vocational school exists to make the community educational offerings more comprehensive in terms of students who have the need, interests, and ability to pursue education in preparation for gainful employment" (p. 189). However, the success of these programs is largely dependent upon local financial support, general revision
of the curricula, and community interest, understanding and support of them.

For many years noncollege-bound youths have received less attention for post-secondary activities than the college-bound students. However, as federal funds have been made available for vocational education, various programs have been developed and vocational education is gradually moving upward and away from its second class status. The writer has visited several area vocational schools in Texas and has found them to be functional, attractive, well arranged, and very definitely conducive to productive learning. Students, in many cases, have expressed pride in their school.

A major purpose for establishing an area vocational school or for affiliating with one is to provide an avenue through which the needs of the noncollege-bound youth may be met. Because business and industry contribute significantly to educational revenue and because manpower needs are of primary importance, vocational education is generally viewed with acceptance by these groups (Saris & Tyler, 1967; Schultz, 1972). Because the area vocational school is a part of the total educational program, its success is directly related to cooperative efforts among educators and community leaders throughout the area it serves (Marrah, 1971; Robertson, 1972; Heathman, 1972). These two groups have the responsibility of promoting the programs, deciding on the curriculum and selecting and recruiting students. As the schools have emerged, various problems
have accompanied their establishment and development. Among these are transportation problems which have affected AVS enrollment (from sending schools). Other problems are preparing students to make wise decisions in the selection of an area of training or in the decision to participate in area vocational school programs.

Prior to establishing two area vocational centers to serve the youth in four counties in Michigan, a study was conducted by the Committee of 100 (1966) to determine student interest in this type of school, general and student population in the areas, manpower needs and economic and educational resources available to provide support for these programs. Included in the findings was a consensus among the school administrators that vocational education course offerings in individual high schools, budgets for these courses, equipment, and facilities were less than adequate. A recommendation from the investigation was that in-depth studies be conducted prior to the establishment of curricula offerings in the area vocational centers. This research suggests that manpower needs and student interests should play major roles in courses taught in the center.

Several researchers have engaged in feasibility and needs studies in preparation for the establishment of area vocational schools in various states (Haines, 1965; Fisher, 1965; Feringa, 1966; Frigiola, 1965; Scew and Hayes, 1966; Scarnato, 1966; New York University, 1965; Ottawa Area Intermediate School District, 1966). Procedures used for these investigations generally were surveys,
interviews and group meetings with students, parents, business, industry, labor, school personnel, high school graduates and high school drop-outs. In general, a need was established for an area vocational school which would offer balanced and diversified programs to meet the manpower needs of the area in addition to meeting student self-perceived needs and interests.

Research does not support the notion that student perceived interests and needs have been considered to any great extent in the development of vocational programs in schools. When student needs have been considered, the implication has been that a survey of manpower needs in a community needed to be conducted. Then, the determination has been made that student self-perceived interest was sufficient to justify such a training program as manpower needs indicated. This observation coupled with such negative viewpoints as several investigators (Lunder & Ringo, 1965; Rice, 1969; Weagraff, 1972; Marrah, 1971; and Edlin, 1966) have reported militate against rapid and progressive development of vocational education and the area vocational school.

In Texas the area vocational school programs are designed to serve manpower needs for all communities in which they are located. The students' ages must range between 14 and 21 (Texas State Legislature, 1965). Policies state that specific course offerings are based primarily upon the manpower needs and employment opportunities in the region of the state in which the school is located (TEA, 1971, p. 4). The total program of the area vocational school
is directed toward the type of training that leads to employment and toward the development of a saleable skill.

Development of the area vocational schools in Texas has progressed under the aegis of an Advisory Council, constituted under the provisions of federal statutes (U.S. Congress; Vocational Education Amendments of 1968) and state statutes, Senate Bill 261, Acts of the 61st Legislature (Vernon's Texas Codes Annotated, 1972).

The Advisory Council for Technical-Vocational Education in Texas (1971) has subscribed to the notion that education is an individual undertaking that must be personally worthwhile. The Council recommends a career education system:

... that is responsive to the direction of each individual as a result of the complete exploration and interaction of the factors of INTERESTS, APTITUDES, ABILITIES, and CIRCUMSTANCES, to the end that every individual be supported in his preparation to achieve a challenging and worthwhile goal in life (p. 4).

The Council indicates that "education managers and planners have given the majority emphasis to the 'process of education' with little emphasis to the 'product of education'" (Texas Advisory Council, 1971, p. 4). Further, it notes substantial variance in the quality of educational opportunity in the state "that results in less than full development of the individual and his achievement of personal fulfillment" (p. 4). With the keen insight into and evaluations of the programs and needs, vocational education in the state is becoming positioned to provide greater impact in the total educational effort than has been true in the past. One of the 1971
recommendations of the Advisory Council has pointed to the establishment of a comprehensive "supply/demand" job market system, a manpower system which "... effectively and economically utilizes the training and human resources for the well being of the individual and the economy of the state" (p. 4).

The Council considered the vocational offerings within secondary schools and concluded that comprehensiveness in offerings was lacking. It made this statement:

Area schools formed under present statutes have tended to serve the district in which they are located and in too many cases do not have resources to develop comprehensive programs that are responsive to the needs of the employer and the job market (Texas Advisory Council, 1971, p. 15).

While the Advisory Council recognizes and comments on the needs of the employer and the job market, evidence is lacking that a primary concern of the Council is that of meeting student, self-perceived needs and interests. The Council reports that vocational programs are well utilized and indicates that there is evidence of continued increase in participation in these programs in recent years. Various vocational youth groups in the state have provided positive and enthusiastic input relative to the programs in which they were participating. The students have indicated certain difficulties encountered in attempting to become participants in vocational programs such as, "lack of acceptance by parents, lack of adequate school counseling with regard to vocational education, and lack of comprehensiveness in offerings" (Texas Advisory Council, 1971, p. 15).
In Texas, 97 designated area vocational schools serve school communities within 63 counties throughout the state (TEA, 1972). The need for occupational education has been clearly established. Success in programs which have been implemented will, to a large measure, depend upon the degree to which the programs meet the self-perceived needs and interests of students.

An area vocational school, as a minimum, must provide a program of vocational education in five different occupational fields to meet the varying training needs of high school students in preparing for gainful employment; make available as needed special programs of occupational training for potential school dropouts and other persons having academic or other handicaps preventing them from succeeding in regular programs of vocational education (TEA, 1971, p. 1).

Each county of the state has been designated as a county-wide vocational school district under the provisions of House Bill 490, (Texas State Legislature, 1965). The State Plan for Vocational Education (TEA, 1970) and House Bill 490 (Texas State Legislature, 1965) provide that the Texas Education Agency has the responsibility of designating one or more school districts in a county as an area vocational school's). Aligned with the intent of the State Board of Education,

... school districts will be designated as area vocational schools when applicant districts have met conditions established in these policies and when it is demonstrated that adequate provision is made for students who have need for programs of vocational education in the area vocational school who are residents of the applicant district and for students from neighboring districts within the county, or where appropriate from adjoining counties, and that the area vocational school can be operated economically on a continuing and educationally feasible basis (TEA, 1971, p. 1).
The basic criteria used for considering the application of a public school district seeking approval as an area vocational school are varied. They range from a description of the proposed geographic area to be served to the proposed establishment of a system of student counseling and guidance, to a demonstration of the manpower needs and numbers of students expressly interested in the program offerings.

Needs and Interests Relating to Vocational Programs

When one contemplates secondary education for the youth in America, realization must come that the educational process must be renewed and infused with freshness, vigor, and practicality. If youth are to be interested and challenged toward optimal development, educational programs must be meaningful to them. Prerequisite to changing the process of public education is a change in attitude toward what constitutes quality education. Society at large and professional educators specifically must recognize that a college education is not mandatory for first class citizenship or community status. Not all nor even a majority of youth can, need to be, or want to be professionals. The fact is that public schools must prepare more of their students to enter the world of work than they prepare for college. Wrenn (1962) reports that school personnel perceive their task as preparation of students for college; yet generally less than half of the students ever apply for admission to college and considerably fewer than that are admitted.
Understandably, vocational education legislation is predicated on the need in the employment market; and, consequently, workers are trained to supply the market. An underlying query yet unanswered deals with student, self-perceived interests and their relationship to program development. Several studies indicate that student vocational interests have been studied; but, a limited number of these address themselves to student interests in the planning of curriculum or in the types of programs to be provided in vocational education. A survey of Colorado students (Colorado State Board for Vocational Education, 1967) indicates that student vocational interests realistically reflect employment opportunities. For students planning further vocational training after high school, more than twenty five percent perceive a need for basic skills training in high school.

Evans (1971) suggests that the original and probably the most widely accepted objective of vocational education is to meet the manpower needs of a community; but he emphasizes that needs of society as a whole should be considered also. Not all individuals accept the meeting of manpower needs as a desirable objective of education (Wrenn, 1962). It appears that talents of the individual should be purposefully developed to avoid the collapse of the economy as well as to provide each individual with "... a sense of control over his environment and a sense of having markedly increased individual options" (Evans, 1971, p. 27).
Because of changing demands of the labor market and changing vocational interests, the high school curricula cannot be expected to match job opportunities completely. However, Johnson and Johnson (1972) suggest that school systems give serious attention to relationships between individual course offerings and the occupational world and to whether or not students are satisfied with the preparation that they receive. Feedback of this kind, they contend, could well be used to devise secondary school's curricula to meet the needs of its "employment-seeking" graduates. Along this same notion, Nerden (1965) makes these statements:

High school must provide for wide areas of interest and great degrees of flexibility if there is to be an articulated and integrated program of vocational and general education. Programs no longer need to be restricted to the traditional, specific, and highly specialized services of vocational education. The extent to which that flexibility is realized will determine the level to which programs more appropriate to the needs of young people in the high schools of the nation will be provided and that, in turn, will largely determine how well the problems of the economy of the nation will be met (pp. 8-9).

Nerden also suggests that the school curricula which may not interest, motivate, or meet the self-perceived needs of students are the culprits in encouraging the potential dropout and malcontent to leave school early. To be effective, vocational education programs, he asserts, must capitalize on "... the native interests, the exploration provided, the motivations, inclinations, aptitudes and wishes of the students" (Nerden 1965, p. 12).

Vocational education has been viewed as a victim of degradation in its attempt to become an integral part of the total secondary
school program. Often these courses are taught in basements, Quonset huts, in buildings away from the school or in a separate wing. As Nerden (1965) indicates, comprehensiveness is claimed; but, separateness exists. Having visited area vocational schools, this writer has observed first hand a type of "separateness" of the physical facilities for these agencies. Discussion with a vocational director on a previous occasion revealed that there existed in the thinking of some of the vocational proponents, the idea that it is necessary for vocational education to achieve separateness from the comprehensive educational program in order to unshackle it from its second-class status. In other words, if vocational education is to make its full contribution to meeting the needs and interests of students, it must stand on its own merits. Otherwise, it is engulfed and denigrated by the pressures of status, prestige, and traditional stigma.

With the concept of the area vocational schools and the revitalization of programs, the opportunity exists for vocational education programs to be strengths unto themselves. Vocational education opportunities are provided for the average student, the highly gifted academic student as well as the educationally handicapped youth. Offerings under these conditions can be provided for various types of students at their entry level and aligned with their needs and motivations. Again, as Nerden (1965) indicates, "... it is certain that this will demand a departure from the traditional patterns of education" (p. 14).
Carr (1971) concludes from his study that consideration should be given to the needs of people as well as the needs of the labor market. He also articulates his position concerning the relationship between vocational education and general education by suggesting that vocational education should be an integral part of the comprehensive educational program. Five years ago Mangum (1968) emphasized the importance of the Vocational Education Amendments of 1963 and reported that there seems to have been insensitivity on the part of vocational education to changes in the labor market and the needs of various groups in society.

Similar data is presented by Milliken (1970) who contends that vocational education programs must be closely related to job performance requirements as well as to student needs and interests. She posits that this relevance could be achieved through student evaluation procedures devised by each school and established to provide feedback on the learning progress of each consumer of the program. In contrast, another writer (Adams, 1970) asserts that "the day of having schools reflect the needs of local areas should be over . . . . Courses should be along the lines the students decide they want to go, not what jobs are open in the particular area now" (p. 14).

In a study involving ratings of occupational categories, Martin (1971) indicates that much too much weight has been given to manpower demands and other variables in the planning of programs for vocational education and a minimum amount of consideration given to
the needs and interests of students. Hansen (1969) supports the conceptual importance of student needs and interests. He suggests two important criteria to be considered in planning for vocational and technical education programs: (1) the number of students who need, want and can realize benefit from the program, and (2) what the job opportunities are for the students who complete the program. He asserts that both should receive equal consideration. Marrah (1971) gives corroborative evidence that vocational education programs should be aligned with job needs of industry as well as with student fulfillment of desires for specific vocations.

The Department of Health, Education, and Welfare has held several Regional Conferences throughout the nation which included discussion regarding how career education needs of youth are being met by schools. There was agreement at the San Francisco Conference (U.S. Office of Education, 1971) that a total reassessment of the approach to education is needed and that a new image should evolve. At the Denver Conference (U.S. Office of Education, 1971) the consensus was that career educational needs of youth are not adequately being met by the educational system. This is especially true for those students who chose not to go to college. Edlin (1966) concurs with the tenor of the two declarations above.

According to Shann (1972) extensive research has been directed toward questions regarding abilities, interests and values of the academically oriented student pursuing a profession, but similar
research is painfully lacking for the vocational student. She suggests that school counselors cannot effectively use the same criteria to assist vocational students in vocational decision-making that have been effective with college-bound youth.

Generally, the literature indicates that the majority of students in the secondary schools where studies have been conducted feel the need for and are interested in participating in vocational education programs. Winefordner (1965) showed that 72.6 percent of 44,429 students from 142 different schools desired vocational education at the high school level. In addition 37.5 percent of these students indicated plans other than college for vocational training after high school.

In attempting to meet individual needs at the secondary school level, students enroll in vocational education courses for various reasons. Jones (1972) investigated underlying reasons for pursuit of vocational programs. He received these responses from students: like to work with the hands, want a better job after graduation from high school, interested in the courses, and like to move around during class time. Another author (Waldorf, 1972) found outside work experience to be the factor which caused most male students to become interested in programs at vocational centers. In this study the majority of students surveyed reported that they were satisfied with the programs in which they were enrolled. However, one of the major annoyances associated with student participation at vocational centers revolves around transportation between
"feeder" schools and the vocational center.

A few studies alluded to needs and interests of students and there were several researchers (Amberson, 1969; Lunder & Ringo, 1965; Tri-County Vocational, Industrial, Technical Survey, 1964) who raised relevant questions of the availability of vocational programs for those students who desire them. By implication, these declarations refer to the lack of efficiency in meeting student, self-perceived interests and needs. Amberson (1969) concluded that appropriate vocational education programs were not available to all high school students who wanted, needed, or could receive benefit from enrollment. Within this context he reports that area vocational schools are not meeting enrollment expectations in enrolling significant numbers of students from various sized schools.

A survey in New York (Tri-County Vocational, Industrial, Technical Survey, 1964) in the early developmental period of area vocational schools involved 498 young employee respondents. Conducted to determine the needs, organization, and types of programs to be developed and to assess existing programs, the study indicated that 80 percent would be interested in vocational education if it were available. This distinctly pointed out that even after high school graduation, individuals who had no vocational direction in which to move would be strongly in favor of engaging in training even though they were employed. Lunder and Ringo (1965) indicate that the area vocational schools are attracting a large number of young high school graduates who have not had the privilege of having
vocational training in high school and who are not being served by a public college or university.

One of the vocational interests of students which reportedly has been met has been the interest in office work. Kingston (1971) showed that students were strong supporters of cooperative office education programs as a part of the general area vocational school program. A genuine interest in it encouraged students to participate in the program. She also found that many graduates who had received training in cooperative office education in high school were highly satisfied with the work in which they were engaged--office occupations. To bridge the gap between development and adaptation of educational practice Asbell (1967) reports that communities have provided a flexible educational system in cooperative office education to meet the needs of students from various backgrounds and with varying ability levels. As an example, the program involves the preparation of individuals for a cluster of skills as opposed to preparation for a single skill.

In contrast to numerous indications that primary foci has been directed toward meeting labor market needs rather than toward individual considerations, interests have been included in some research. The interests of seniors were identified to provide data upon which to plan and develop programs needed for persons entering the labor market (Indiana Vocational-Technical College, 1967). Two factors emerged from this study: (1) student interest in vocational courses increased during the senior year, and (2)
that there was a distinct need for earlier and improved guidance and counseling for the high school student.

Specific studies have shown that interests of male and female students tend to localize in general categories. Loveless and Cannon (1966) indicate that automotive areas are of interest to the greatest number of male students, and business areas interest the female students who are not going to college. Students expressed a desire for more classes in these areas at the high school level.

Senior girls from six vocational, comprehensive, and general academic schools in Michigan, Kentucky, and Ohio were included in a study done by Lee (1971). Her findings indicated that girls from the vocational schools showed more interest in immediate financial rewards than girls in any other type of school. Interestingly, the findings from this study will be used, according to Lee, to develop a unit of study that will assist girls in preparing for their probable futures.

Howe and Buntrock (1966) showed that males were interested in mechanics, agriculture, drafting, electronics and welding. Females indicated interest in secretarial training, cosmetology, and medical occupations. Feedback from dropouts in the study included suggestions that school would improve if the curricula were expanded to include vocational-technical education and that there need be more individual help and better counseling.

Reinforcement for the need of individual, vocational help in the form of better counseling is indicated in a survey study
Respondents of the survey were student representatives from vocational-technical and comprehensive high schools in the Philadelphia School District. Data revealed that although graduates of vocational-technical high schools received more assistance from counselors in obtaining employment upon graduation, vocational counseling in general was deficient due to an unrealistic counselor-pupil ratio. At a Regional Conference of the Department of Health, Education, and Welfare (USOE, Seattle, 1971) agreement was reached on the importance of more attention being focused on career needs of all students, not only for those going to college—and a greater emphasis on guidance and counseling services to aid students. To emphasize the point, Gassert (1972) related that his study showed high school graduates held a rather unfavorable overall impression of guidance and counseling and indicated a need for increased communication between students and counselors. The high school graduates felt that occupational offerings should not be determined solely on local or state employment demands.

Awareness of vocational offerings and opportunities that are inherent within the programs is a logical prerequisite to enrollments that are realistically meeting the needs of students. If students do not know of the programs, they cannot profit from them. Bottoms and Swain (1967) state that students can take advantage of vocational education programs only to the extent that the program opportunities are communicated to them, thus allowing them to be aware of what is available. Their study was based upon the
assumption that a lack of communication about vocational education to high school students and the general public was a probable cause of less than maximal participation.

Rice (1972) found that one of the major factors contributing to less than optimal enrollments in area vocational schools in Texas is transportation to and from the area vocational school. He also noted that a very limited number of eligible schools were sending students to the area school. He suggested that perhaps noninvolvement of area personnel in planning and organizing the school may be a contributing factor to the non-participation trend of area students in the area vocational schools. Rice made the following statement:

Most of the superintendents expressed that they would be obliged to arrange for students to attend the area school if parents requested this service. However, 80 percent of the superintendents expressed that parents from their districts were not interested in students attending the area school because they were uninformed about its program (p. 24).

He continued by noting that there was an apparent breakdown in communications between sending schools and the area vocational school. Concern was expressed that superintendents were not convinced of the value of vocational education.

The Board of Cooperative Educational Services (New York State Education Dept., 1968) conducted a study involving graduates of two area vocational centers. Among other findings the study pointed to the fact that graduates felt that the high school counselor served them as the most significant source of influence in their
selection of vocational courses. Data from New York State Education Department (1968) concur with findings concerning the counselors as a significant source of influence.

Tule (1966) surveyed the guidance procedures utilized in the area vocational schools and utilized his findings to develop a comprehensive guidance program. He notes that the orientation of students is extremely important and asserts that adequate decisions cannot be made by students who have inaccurate and limited knowledge. The comprehensive guidance program developed by Tule consists of assembly programs, films and slides, newspaper articles, guided tours, radio and television programs, special summer courses, and school publications.

Bottoms & Swain (1967) reported suggestions from high school counselors regarding ways in which vocational educators and counselors could work together to orient students to the area school program. A series of activities involving principals, teachers, counselors, and prospective students focused on familiarizing students with opportunities present in the area vocational-technical schools. Included in these activities are programs of student personnel services such as recruitment, orientation, admissions, information service, and job placement. These authors found that inadequate communications from the area schools regarding admissions was a major cause for the failure of many students to enroll. They relate, "The streamlining of the admission program would enhance
the ability of these schools to meet the needs of more individuals"
(p. 269).

Improving communications and understanding between the area vocational-technical and high school officials and counselors would assure, according to Bottoms & Swain (1967), the following:

(1) High school students would have more accurate information upon which to base their post-high school decisions;
(2) More students, particularly dropouts and noncollege-bound students, would integrate this information into their vocational decisions; (3) High school officials would reinforce the idea of respect for and dignity of every individual worker who is making a positive contribution to our society, particularly through his job performance (p. 268).

Since 1964 high school counselors in Georgia have been engaged in activities designed to assist them in greater awareness and understanding of the area vocational-technical school programs. These activities enhance their experiences, utilize materials and supply information toward more effectiveness in their work (Bottoms & Swain, 1967). The effects of improved communication were noted in a marked increase of enrollment after one year of implementation. Growth in enrollment indicated that students viewed the programs with acceptance and interest. Much of this change in the students is attributed to the work of the high school counselors who have become as enthusiastic and interested in assisting students with enrollment in the area vocational-technical schools as they are in enrolling students in other types of postsecondary programs. When attitudes of the counselors toward vocational education programs are positive and there is respect
for the student's interests and needs, the trusting relationships necessary between counselor and student is facilitated.

Sudweeks (1972) lends credence to the notion that school counselors can develop greater understanding and concern as well as increased awareness to the fate of the unprepared high school graduate or the dropout in search of employment. A method of achieving this goal is by working with the U.S. Employment Service during the summer. In the summer of 1970 a few years after the program of employing school counselors began, 644 positions were authorized which included 49 states, the Virgin Islands, the District of Columbia and Puerto Rico as participants. Federal funds for this program have been made possible through various agencies, local, state, and national. Sudweeks (1972) describes the function of the counselors:

Although used primarily for counseling in the summer youth program, school counselors have a variety of functions, including counseling of adults, employer contacts, job development, and selection and referral of applicants to jobs or training programs. Most were happy with these broader experiences; they enabled them to gain a better knowledge of the world of work and the community resources available (p. 301).

Participating counselors have stated pointedly that this experience has caused them to realize the value and need of vocational education and vocational counseling in the schools.

Effectiveness of the Area Vocational School Program

Programs are evaluated in a variety of ways according to selected criteria. Holmes (1972), in evaluating the effectiveness
of vocational-technical programs in Oklahoma, suggests that present programs must be '... reevaluated and restructured to provide a unifying educational experience meeting student needs, interests and abilities rather than a random assemblage of unrelated and self-contained courses' (p. 673-A).

Sanders (1967) made a comparison of the cooperative education and vocational-technical school programs and found that vocational-technical programs have greater impact in maintaining student interest and improving attitudes toward school. These programs emphasized job skills in contrast to cooperative program's focus on personal and social traits. Transition from school to work was facilitated through the cooperative program. Graduates of the cooperative program excelled vocational-technical graduates in desirable personality traits, work habits, and a higher degree of occupational competency. Information from this study may hold implications for restructuring the vocational education programs.

In a New Mexico summary report (1970) two major strengths of the program are noted by the trainees: (1) the high level of interest shown students by teachers and (2) the strengthening of self-confidence as a result of completion of the program. The finding of strengthened self-confidence bears out Super's (1969) postulate of the relationship of self-concept to vocational decision making. This includes aspects of personality, values, interests, needs, and interrelationships in measuring the effectiveness of area vocational school programs. Related to this is a study by Clemons (1972)
that reveals differences of perception of the quality and weaknesses of vocational cooperative education programs among students, teachers, and businessmen. However, the three groups perceive the greatest strength as being a major contribution to career preparation. Other strengths of the program noted by Clemons are these: skill development, achievement of independence, encouragement in wise money management, and social maturation. Students perceive the major weakness as their removal from school activities. However, they feel that they have received exceptional preparation in business skills.

From another standpoint the New York State Education Department (1968) reports 70 percent of the area vocational school graduates in the state have found employment in the trade for which they have been trained immediately upon graduation from high school. In contrast, the McCowan and Mongerson (1971) study shows that most graduates do not enter an occupation area in which they are trained and suggests that flexible vocational education is more appropriate than specific training. In a preliminary study of area vocational-technical schools, Shrestha and Robinson (1967) report that approximately 60 percent of the graduates are placed in jobs related to their training.

Hemler (1972), in ascertaining the effectiveness of the different types of secondary vocational programs, uses area vocational school programs, regular high school programs and regular vocational school programs to determine whether there are differences
in the rate of employment and participation in post-secondary edu-
cation among the groups of student participants in each program.

He makes this report:

Students who participated in a vocational education program
and attained some type of marketable skill not only had a higher
success in gaining employment after graduation . . . but had
a higher rate of participation in post-secondary education than
students who participated in just the regular high school pro-
gram . . . (p. 673-A).

Dealing with concepts perceived to be essential for effective
vocational programs, Wojcik (1971) determined that 68 percent of
the sample of vocational educators, administrators and counselors
felt that broader concepts of the aims and goals of vocational
education are required. Responses to a second part of the study
yielded information regarding a need for vocational personnel to
establish closer working relationships with industry and a need
for changes in the quality of curricula, counselors, and the quality
of vocational students. Suggested here may be an implication that
some personnel feel that students need to be selected for voca-
tional education rather than the reverse process.

Bensman (1970) reports that high school graduates in general
feel that vocational training programs have trained them exception-
ally well for full-time job assignments obtained after graduation.
Further, a major portion of graduates from vocational schools pur-
sue some type of advanced training after graduation. In addition,
Bensman reveals that students perceive guidance services to be less
than adequate. The students express a need for more consideration
given to training and selection of high school counselors. Corroborating, the excellence in training, Carreras (1972) concludes that students in area vocational schools have been well prepared for the world of work. Of the graduates in the sample, 97.5 percent have been successful in securing employment; 51.4 percent are employed in the same trade or one related to their training. A significant finding is that 92.6 percent rate the vocational training they have received as "good" to "excellent," and 98.2 percent recommend area vocational school programs to other students seeking training.

Related to student perception of effectiveness of area vocational school programs is effectiveness of adult vocational program offerings. Bowlan (1972) reports the improvement and an increase in knowledge of skills by those enrolled in the programs serves as a basis for promotion, better salary, and improved relations with employer.

Significant differences are found by Huckabee (1970) in perceived importance of curricula objectives between state vocational directors and business leaders. The members of three groups—vocational directors, business leaders, and instructors in two-year management training programs were asked to rate present and future importance of five objectives of the management training programs offered in two-year colleges in the nation. A distinct communication gap was apparent evidenced by the significant difference of perception regarding the importance of curricula objectives.
Although this study relates to college level training, suggestions made by Huckabee could well apply to the secondary level. She asserts that the line of communication must be opened, and dialogue is imperative among the three groups to assure that the programs serve the students' best interests.

The counseling and guidance aspect of effectiveness deserves consideration. Bensman (1970) reported inadequate counseling and guidance services perceived by students. Perhaps data by Wrenn (1962) is beneficial in explaining this perception. Based upon the Talent Study, he reports this data:

"Counseling for college" in the three to four year senior high school is extremely high in frequency, twice as frequent as the next highest item, and 11 times as frequent as "counseling for developing potential." On the other hand, "counseling for occupations" ranks much lower than other counseling emphases in the three to four year senior high school (p. 115). He indicates that vocational counseling was at the "bottom of the totem pole." Apparently counselors are responding partially to school program needs and also to parent expectations in the assignment of their time. In addition, such factors as the complexity of vocational counseling, the rapidity of change in occupations, difficulty with locating and securing occupational information, and the demands made on counselors' time (Wrenn, 1963) contribute to a declining emphasis on vocational counseling. A very significant reason also reported by Wrenn is the assumption that "the most 'worthwhile kids' will go to college and so vocational decisions can be postponed" (Wrenn, 1963, p. 106).
When educators consider the concept of assigned second class status to those who do not plan to attend college, they need to be reminded of the statistics on college youth. Little (1971) asserts that 75-80 percent of American youth are not completing the college degree. For these youth logic would decree that guidance in selecting a satisfying and appropriate occupation would be a top priority of counseling. Much available information indicates, however, that while a change in direction has been made toward increased occupational counseling and guidance, the outcomes are somewhat less than optimal.

Literature related to area vocational school program effectiveness is sparse. Particularly is this true in relationship to area vocational secondary school programs. Perhaps the fact that empirical studies on effectiveness of area vocational school programs are difficult to find is strong indication that such research is needed. When the factor of students as consumers of the programs is injected, the situation is intensified. Without feedback knowledge, the goal of vocational development remains only a verbalized goal.
CHAPTER III

METHOD OF PROCEDURE

Objectives of the Study

This research proposed to determine empirically (1) student perception of program effectiveness of the area vocational schools in Texas in meeting the students' self-perceived interests and needs, (2) student awareness of the area vocational school program offerings and opportunities which are available through these programs, and (3) guidance and counseling procedures used by schools to enhance student awareness of vocational program offerings and opportunities. An assessment of program effectiveness and student awareness was made. In addition, comparisons of self-perceptions of the program offerings were made between participators and non-participators, between sending and receiving school students and among the combinations of groups. It also sought to answer the question—do girls perceive the existing vocational programs to be equally as effective for themselves as for boys? The reverse question dealing with perception according to sex is also considered.

Development of the Questionnaire

In order to secure data necessary for the completion of this study, it was necessary to develop an instrument to which subjects could respond. Considerations made prior to the beginning of the
instrument development involved surveying the literature to glean data for meeting student self-perceived interests and needs. The paucity—in fact, non-existence—of focus on student self-perceived needs and interests is significant. Surveying the literature, discourse with students in vocational school programs, discussion with vocational education personnel, and first hand knowledge and observation as a secondary school teacher were utilized as bases for the construction of the instrument. Criteria used in the development were these: simplicity in answering, directness, brevity, and relevancy. The questionnaire made provision in the first section for general information. Three additional sections were devised—one relating to program effectiveness in meeting student self-perceived interests and needs; a second, to student awareness; and a third to counseling and guidance techniques used in enhancing occupational development. Likert-type scales were used to assess qualitatively the degree of effectiveness and awareness of the area vocational school program in the perception of the students. Another aspect of the instrument was the check-list type of question to determine the extent to which various methods of counseling and guidance were used. A third kind of question was the dichotomous type included to ascertain the existence of knowledge related to the vocational program.

The questionnaire was developed in two forms—one form for the participator in the area vocational school program and another form for those who did not take part in any type of vocational training.
Efforts were made to make the two forms parallel. (Copies of the two forms of the Questionnaire--AVS Participator Instrument and AVS Non-Participator Instrument--are included in Appendix A).

Field Test of the Instrument

In order to refine the questionnaire for greater clarity, better communication, and relevancy, it was subjected to a field test by a peer group of those for whom it was intended. Two groups of students, eleventh and twelfth graders, responded to the questionnaire. One of the groups was composed of students who were participating in vocational programs--Distributive Education and Cooperative Homemaking. Thus, the assumption was made that these youth not only were familiar with a vocational education program, but they also were potentially able to verbalize interests and needs of students who were pursuing occupational development. This group of 20 students responded to the participator form of the instrument. A second group of 25 juniors and seniors in high school responded to the non-participator form. These students were not enrolled in any type of vocational program.

The investigator explained the purpose and intent of the instrument and requested that the students read it carefully and critically. The introductory paragraph which the "participating" students were requested to read prior to making response follows:

Each student in high school faces a serious task of deciding what kind of work he wants to do--what his occupational career will be. You have made a decision to take training in high
school to achieve a saleable skill. The vocational programs which are offered in your high school are effective to the degree that they help the student to solve his problems of deciding upon a career and to the degree that offerings in the area vocational school meet the vocational needs and interests of each student. In addition, the program should prepare students with work skills for which there is a need in the world of work.

The following items are intended to secure information from you regarding how you feel about the vocational program in which you participate. Are the programs meeting your needs and interests?

The "non-participating" students' introductory paragraph was the following:

Each student in high school faces a very serious task of deciding what kind of work he wants to do—what his occupational career will be. Although there is a vocational program which is available to you—to train you for going to work immediately after graduation from high school, you have not decided to enter this program. The area vocational school programs which train students are effective to the degree that they help students to solve their problems of learning about work, deciding on a career—meeting the vocational needs and interests of students. Also, the programs should prepare students by giving them work skills for which there is a demand in the world of work.

The following items are intended to secure information from you regarding how you feel about the preparation, you are making for the future and about the vocational programs which are available to you if you desire to participate in them.

A concerted effort was made to create a climate for the field test that would facilitate constructive criticism and discussion in addition to provoking questions as to meaning and communication. Students were encouraged to raise any and all questions or make comment as to the relevancy of the questionnaire, the language used, and the style in which it was written. They were queried as to its length (was it sufficiently brief to obtain a serious, thoughtful
response from students?), the ease with which response was made, and the facility of understanding.

Explanation was made that student criticisms, comments, and discussions were sought because they were needed to make the instrument usable. Furthermore, they were told their assistance would help to assure that data gathered through use of the questionnaire was authentic.

Instructions for the field test included a request for assistance in identifying particular words in the instrument that were not comprehensible, pointing out confusing or ambiguous statements, and adding to or deleting from the instrument for clarification, practicality, and efficiency in securing information.

After each student had had an opportunity to respond to the questionnaire, a period of interaction ensued. Suggestions made by students were discussed by the group. The most significant contributions, which the test groups made were the identification of terms that were not readily understood. Changes were made in the instrument according to student suggestions.

A brief follow-up meeting with a subgroup of the original 45 students was held to determine the appropriateness of changes in the instrument. This group agreed that the instrument posed questions which were direct, clear, and to the points of student interests, needs, and awareness.
Selection of Participating Schools

When the instrument was completed and ready for use, the subsequent undertaking was the selection of area vocational schools to be included in the study. Eight area vocational schools and a minimum of one sending school associated with each of these eight were randomly selected from the total number of schools eligible to participate in the study according to the criteria originally delineated. Data from the Texas Education Agency (1972) provided the basis upon which the decision regarding the eligibility of area vocational schools as participants in this study was made. School systems which included 20,000 or more scholastics and area vocational schools reporting less than 10 students from sending schools enrolled in the program were ineligible. The restriction on urban area vocational schools was imposed because findings from within the urban environment as a result of size, program offerings, and lack of representativeness are not generally applicable to the majority of AVSes. The second restriction was an effort to insure a sample of "area" students. This was necessary so that a comparison could be made of vocational educational opportunities and benefits for all youth whom the area vocational school purports to serve. Of the 97 designated and operating area vocational secondary schools in the state at the time of this inquiry, only 15 met the criteria for the study. Eight were eliminated because of the limitation relating to the urban school classification. Seventy-four failed to qualify
under the second criterion of the study which required that at least 10 students enrolled in the area vocational school programs would be students from "area" sending schools. The remaining 15 constituted the population from which the student sample was drawn.

Initially, the plan for securing approval for the participation of each school was to send a letter of request to all superintendents of the systems. The study, at that point, had been endorsed by Dean Frank W.R. Hubert of the College of Education, Texas A&M University, and John R. Guemple, Associate Commissioner, Department of Occupational Education and Technology, Texas Education Agency.

Expediency of time called for a change in procedure. The investigator personally visited each superintendent of the randomly selected, receiving schools and a major portion of the superintendents of sending schools. Telephone contact was made with those who were not visited personally. The initial visit included meeting the superintendent, securing permission to include the school in the study, discussing the study with him and particularly with the high school principal and/or the director of the area vocational school, the high school counselor and/or the vocational counselor. There is an interesting note regarding the cooperativeness and willingness of school personnel to participate in this study. No refusals nor hesitations were exhibited on the part of any superintendents or other professional personnel or student involved in the study. In fact, there was great interest and encouragement expressed by the professional staff of the schools. The
8 schools which were initially, randomly selected constituted the school sample.

Diversity Among Participating Schools

The diversities which are apparent among the 8 sample schools are analogous to the differences found among communities and students in various areas of the state. The scope encompassed by these schools is extensive as one views the vast area within the boundaries of the state and the variations in needs and interests which exist in the various regions.

Geographically, the 8 schools represent much of the state. Areas represented include the South Plains in the Northwest section of the state, the Northeast region, Southeast, South-central, East-central, and North-central areas as well as the Coastal region. With the exception of the sparsely populated far West Texas, representation is widespread.

Data from the Texas Education Agency (1972) show high school enrollments, in conjunction with the area vocational schools, to range from 570 students to 3,200. In terms of the classification of schools according to total number of scholastics in the district, one school has between 1,000-1,499 scholastics. Four are categorized in the 1,500-4,999 group; and three range in the group of 5,000-9,999 scholastics. Note is made of the exclusion of urban school systems in this study.
In contrast to the related high school enrollments, student enrollments in the area vocational schools range from 360 to 660. Five of the area vocational schools enroll between 300-400 students. One has 520 enrolled and two have more than 600. There is no relationship between the size of the community and the size of the AVS.

Another divergence lies in the number of sending schools associated with a receiving school. For example, 1 area vocational school is 1 of 2 secondary schools in the county. It has 2 sending schools in conjunction with it. In another instance, another AVS serves 5 sending schools located within a short radius of the receiving school; and all 5 sending schools have students participating in the area vocational school program.

Program offerings vary—from programs in data processing to vocational drafting, electrical trades, cooperative vocational agriculture, vocational office education, and building trades. However, a survey of the offerings shows more similarities than differences in the area vocational secondary school programs.

Information concerning the diversities is related to substantiate the representativeness of the participating schools. Differences in the various geographical locations within the state made wide geographical representation desirable.

Determining and Selecting the Student Sample

The number of students to be included in the sample from each participating school was determined by taking 10 percent of the
total enrollment of the area vocational school reported to the Texas Education Agency by June, 1972 (TEA, 1972). Of that total number one half was drawn from students who participate (participators) in the area vocational school programs and the other half (5 percent non-participators) came from members of the eleventh and twelfth grades who were not enrolled in an area vocational school program. In determining the number of students from sending schools to be included in the sample, the same procedure was followed whenever there were sufficient numbers to make this possible. The small number of participators from sending schools prevented, in some instances, matching the "sending participators" with the "receiving participators." In such circumstances all students from sending schools who were enrolled in the area vocational school were included: this number was matched with non-area vocational school participators from the sending school. In some cases a combination of students from two or more sending schools was necessary in order to secure the desired number of sending participators.

In preparation for drawing a random sample, a roster of the receiving school students in the AVS program was utilized for the participator group. In like manner, rosters of all other juniors and seniors in the receiving school constituted the pool from which the non-participator group was randomly selected. The same process was employed for the selection of participators from sending schools where numbers were sufficiently large to warrant it. Otherwise, the total number of participators from sending schools
were included in the participator group. Non-participators from sending schools were also randomly selected from eleventh and twelfth grade student rosters which excluded the sending participators.

Each name on the rosters was numbered consecutively, and corresponding numbers were used in drawing for the determination of the sample.

A Description of the Subjects

Subjects who composed the sample were 672 eleventh and twelfth graders. Half of the sample (336 students) were participators in an area vocational secondary school program, and the remaining half were non-participators (336 students).

There were 210 males and 126 females in the participators' groups. Sending school participators numbered 155 while there were 181 from receiving schools. According to grade classification, 173 were high school seniors; juniors made up a group of 163. Mean age for the total participator group was 17.0 years. It was ethnically divided into 262 whites, 35 blacks, 35 Mexican-Americans, 2 Indians, and 2 others.

Another facet of the participator group noted is that approximately 26 percent (86) gave indication that their plans immediately after graduation from high school were to go to college. Almost two-thirds (221) planned to enter the world of work immediately after graduation. Further information concerning immediate
plans after high school graduation is presented in Table 1.

A composite of the non-participants' group contains 181 males and 155 females. According to the school designation, there were 156 sending and 180 receiving school students. By-grade-level, there were 170 seniors and 166 juniors. Mean age for this group was 16.7 years. Ethnic groups numbered 285 white, 24 black, 26 Mexican-American, and 1 other. In contrast to the participators' group, 213 of the non-participants had planned for college immediately upon completion of high school while 146 planned to start to

### TABLE 1

Student Immediate Plans Following Graduation from High School

<table>
<thead>
<tr>
<th>Plans</th>
<th>Participators</th>
<th>Non-Participators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Z</td>
</tr>
<tr>
<td>Go to College</td>
<td>86</td>
<td>26</td>
</tr>
<tr>
<td>Go to Technical School</td>
<td>36</td>
<td>11</td>
</tr>
<tr>
<td>Go to Vocational School</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Go to Business College</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>Get a Job</td>
<td>221</td>
<td>66</td>
</tr>
<tr>
<td>Get Married</td>
<td>70</td>
<td>21</td>
</tr>
<tr>
<td>Enter the Armed Forces</td>
<td>34</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>4</td>
</tr>
</tbody>
</table>

Note.—Total Sample = 672 Subjects (Participators = 336; Non-Participators = 336)

work soon after graduation. One explanation needs to be made
concerning the immediate plans check-list. All students had the option of checking more than one immediate objective. Thus, of the 146 non-participants who plan to start to work, it is possible and probable, in some instances, that the individual planned to work and "go to college." The same assumption might be made for participants who plan to go to college.

Administration of the Questionnaire

When the investigator met with the groups of the student sample at various schools, she explained the reason for the questionnaire—to find out how students feel about the programs that are available to them for vocational development and/or programs available in the area vocational school. A second reason expressed to them was to determine the degree of awareness which students had of the AVS program and the methods and practices used in counseling and guidance to enhance the awareness. In order for directions and instructions for securing the information for the study be standard, the instructions were given both orally and in writing (See Appendix B).

No names were used in responding to the instrument, and students were encouraged to be "completely open and honest" in their answers. No time limit was imposed. Since none of the personnel at the various schools had a copy of the questionnaire prior to its administration, there was no opportunity for discussion which might have influenced the responses.
Compilation of the Data

It was necessary that overall program effectiveness for meeting needs and interests of students in their occupational development be evaluated. An overall program effectiveness score (PES) was obtained by summing the values of five items—numbers 7, 8, 9, 11, and 12 from Part I of the Area Vocational School Participator Instrument. For those who were non-participators, the PES was determined by taking the sum of values for items 9 and 10, dividing by two and adding to this sum the values indicated for items 11, 12, 14, and 15 of Part I of the Area Vocational School Non-Participator Instrument.

Likewise, a student awareness score (SAS) was derived by taking from Part II of the AVS Participator Instrument the values of items 13, 14, 15, 16, 17, 18, 19, 20, and item 10 from Part I and summing these for a total score. The SAS for non-participators was created from Part II of the Area Vocational School Non-Participator Instrument. Taking the average of items 18 and 24, adding the values of items 19, 20, 23, 25, 26, 27, 28 and the value given item 13 from Part I yielded an overall awareness score.

Through responses made by students to queries in the instrument and by compilation of this data, each student determined his own PES and SAS as they related to the area vocational school program. Other information which was disclosed through response to the questionnaire resulted in a tabulation of practices and methods used in occupational guidance and counseling. In this manner, the most
widely used and effective techniques in the perception of the students were observed.

Statistical Treatment of the Data

Dependent measures in the analyses of variance were program effectiveness scores (PES) and student awareness scores (SAS). A modification of a program by Veldman (1967)—the AVSCHEFF (Barker, in press)—was used. The program is a combination of Veldman's AVAR23 "which provides for unequal cell N in double and triple classification of analyses of variance" (Barker, 1971, p. 1) and Scheffé's method of multiple contrast (Marascuilo, 1971). The computer routine used the F test to determine significant differences among the groups, and Scheffé's method pointed out the differences between specific groups and the extent to which they differ. Significant difference was noted at the .05 level of confidence.

To ascertain and make a comparison of the differences among these variables according to empirical conditions, a triple classification analysis of variance was employed. The three experimental variables were arranged in a 2x2x2 factorial design. The first variable, school population, consisted of two classifications: sending and receiving. The organismic variable further divided the students from sending and receiving schools into male and female groups. A third variable, participation, was classified into the levels "participators" and "non-participators." Initially, frequency distributions were determined; and descriptive statistics,
computed by means of Veldman's (1967) DISTAT computer program. Information yielded from this procedure adds to the findings.

Summary of Procedures

Having outlined the objectives of the study, the investigator proceeded in development of the instrument which was used in the collection of data. Upon completion of this task, the next step was to field test the questionnaire and make an evaluation as to its proficiency in securing the desired data. Results from the field test were positive; changes were made as suggested by the students.

A random selection of schools was made, and subsequently the student subjects for study were also randomly selected. The next tasks were the administration of the questionnaire and the compilation of the data. Finally, the data were analyzed and statistically treated. The results and discussion of findings follow.
CHAPTER IV

PRESENTATION OF THE FINDINGS

Findings are presented in three sections, each of which is directly related to the objectives of the study. Section one presents results pertaining to student perception of program effectiveness. Data from a comparison of perceptions between male and female students, participators and non-participators and students from sending and receiving schools also are reported. A second section comprises findings concerning student awareness of area vocational school program offerings and opportunities available through these. Counseling and guidance procedures perceived by students as being used to enhance student awareness of AVS programs are reported in the third section. Information gained from analysis of data supplies illumination to questions inherent in the objectives of the study.

Program Effectiveness

Overall Scores

Overall program effectiveness scores for each of the students was computed, and a mean score was determined for the participating and non-participating students. Based upon a maximum, summed score of 25, the mean program effectiveness score for those students who participate in the AVS program is 18.51. Non-participating students
have a mean program effectiveness score of 15.36 of a possible 25. Overall program effectiveness scores, as previously mentioned are composite sums of several items within the questionnaire; each item rating is based on a 1-5 scale.

**Components of Program Effectiveness Scores**

Component items that are encompassed in the program effectiveness scores are given in Tables 2 and 3. Shown in the tables are means, numbers and percentages of student ratings. Observations of items which are components in both the participator's and non-participator's form of the instrument indicate parallelism in assessment of the educational programs in which students are enrolled and which relate to preparation for future vocations.

Means for non-participators of the overall PES indicate, according to a 5 point scale, a medium effectiveness of the program in which they are involved toward meeting their individual interests and perceived needs. According to data from the DISTAT computation (see Table 1), 60.7 percent or 213 plan to attend college upon graduation from high school. Accordingly, there appears to be substantiation that the self-perceived interests and needs of the non-participating students are not viewed as educational training which prepares them for entry into the world of work. The findings indicate less effectiveness in the non-participators' perception ($\bar{x} = 15.36$) of the program in which they are involved. Table 3 makes explanation of the component items which are included in the
TABLE 2

Items Included in Overall Program Effectiveness Scores for Participators in AVS

<table>
<thead>
<tr>
<th>Items</th>
<th>Means</th>
<th>Rating Scale for each Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>7. How effective is the AVS training program in meeting individual needs?</td>
<td>3.81</td>
<td>3</td>
</tr>
<tr>
<td>8. How effective is the AVS program in helping to develop attitudes which reflect dignity in and respect for work?</td>
<td>3.95</td>
<td>-</td>
</tr>
<tr>
<td>9. How effective is the AVS program in helping develop specific skills which qualify one to enter the work force immediately after graduating from high school?</td>
<td>3.86</td>
<td>4</td>
</tr>
<tr>
<td>11. What is the probability of using the training received in a full time job immediately upon graduation?</td>
<td>3.57</td>
<td>19</td>
</tr>
<tr>
<td>12. What is the probability of seeking further vocational or technical training in the field in which training is being received?</td>
<td>3.32</td>
<td>27</td>
</tr>
<tr>
<td>Items</td>
<td>Means</td>
<td>Rating Scale for Each Item</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------</td>
<td>---------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Very low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>How effective is the educational program in high school in meeting</td>
<td>3.19</td>
<td>12</td>
</tr>
<tr>
<td>vocational needs and interests?</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>How effective is the school in helping to develop attitudes which</td>
<td>3.55</td>
<td>4</td>
</tr>
<tr>
<td>reflect dignity in and respect for work?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How effective is the school in helping to develop specific skills</td>
<td>3.16</td>
<td>26</td>
</tr>
<tr>
<td>which qualify one to enter the work force immediately after</td>
<td></td>
<td></td>
</tr>
<tr>
<td>graduation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is the probability of going to work immediately upon graduation?</td>
<td>3.03</td>
<td>76</td>
</tr>
<tr>
<td>What is the probability of seeking vocational or technical training</td>
<td>2.40</td>
<td>85</td>
</tr>
<tr>
<td>immediately upon graduation?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
non-participators' form of the instrument for the overall PES.

A comparison of means in Tables 2 and 3 of the overall PES scores indicates that students who participate in the AVS program perceive the training which they receive toward occupational development as being more effective than do those students who are involved in programs other than in the AVS. Further, the range of the participators' means is less than that of the non-participators.

Comparison of Program Effectiveness Scores

Mean scores for program effectiveness are reported in Table 4 according to the main effects of the investigation: (1) participation, (2) type of school in which the students are enrolled, and (3) sex.

TABLE 4
Mean Program Effectiveness Scores by Participation, Type of School, and Sex

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Sex</th>
<th>Participators</th>
<th>Non-Participators</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>18.97</td>
<td>15.86</td>
<td>17.42</td>
</tr>
<tr>
<td>Sending</td>
<td>F</td>
<td>18.57</td>
<td>15.41</td>
<td>16.99</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>18.77</td>
<td>15.63</td>
<td>17.20</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>17.92</td>
<td>14.56</td>
<td>16.24</td>
</tr>
<tr>
<td>Receiving</td>
<td>F</td>
<td>18.58</td>
<td>15.63</td>
<td>17.11</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>18.25</td>
<td>15.09</td>
<td>16.67</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>18.45</td>
<td>15.21</td>
<td>16.83</td>
</tr>
<tr>
<td>Totals</td>
<td>F</td>
<td>18.58</td>
<td>15.52</td>
<td>17.05</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>18.51</td>
<td>15.36</td>
<td></td>
</tr>
</tbody>
</table>
The mean perception of program effectiveness for participators in the AVS program was highest (18.51). Information from Table 4 also indicates that students from sending schools perceived greater effectiveness of the program than did those from the receiving schools. Additionally, the mean program effectiveness score was higher for girls than for boys.

Table 4 breaks down further the mean scores for the main effect of participation into student classifications of sending and receiving schools and male and female. With these divisions, there are mean PES's for 8 sub-classifications of students. Male participants from the sending school record the highest mean while the male non-participants from the receiving school have the lowest mean PES.

Sending males perceive the highest AVS program effectiveness followed by females from receiving schools. The lowest mean score when the participation score is disregarded belongs to males from the receiving school.

Table 5 presents the results of an analysis of variance with program effectiveness as the dependent variable. At the .05 level of significance differences were found in the main effects of participation and type of school in addition to the interaction effect of type of school by sex. No significant sex differences were observed. Findings substantiate the fact that students who are enrolled in an AVS program differ significantly (P=.01) from those who
do not participate in a vocational program in their perception of the effectiveness of programs in which they are involved. Further, there is a difference in perception of program effectiveness at the .05 level between students from sending schools and those from receiving schools with sending school students' perceiving greater effectiveness.

In further examination of mean differences among pairs of groups, Scheffé's method of multiple contrasts pointed out that participation differences existed among each of the 4 groups from

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7</td>
<td>241.58</td>
<td></td>
</tr>
<tr>
<td>Type of School (A)</td>
<td>1</td>
<td>44.65</td>
<td>4.85*</td>
</tr>
<tr>
<td>Participation (B)</td>
<td>1</td>
<td>1569.60</td>
<td>170.48**</td>
</tr>
<tr>
<td>Sex (C)</td>
<td>1</td>
<td>7.73</td>
<td>.84</td>
</tr>
<tr>
<td>A X B</td>
<td>1</td>
<td>.04</td>
<td>.00</td>
</tr>
<tr>
<td>A X C</td>
<td>1</td>
<td>65.75</td>
<td>7.14**</td>
</tr>
<tr>
<td>B X C</td>
<td>1</td>
<td>1.29</td>
<td>.14</td>
</tr>
<tr>
<td>A X B X C</td>
<td>1</td>
<td>1.99</td>
<td>.22</td>
</tr>
<tr>
<td>Within Groups</td>
<td>664</td>
<td>9.21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671</td>
<td>11.63</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
** p < .01

TABLE 5
Analysis of Variance for Program Effectiveness

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7</td>
<td>241.58</td>
<td></td>
</tr>
<tr>
<td>Type of School (A)</td>
<td>1</td>
<td>44.65</td>
<td>4.85*</td>
</tr>
<tr>
<td>Participation (B)</td>
<td>1</td>
<td>1569.60</td>
<td>170.48**</td>
</tr>
<tr>
<td>Sex (C)</td>
<td>1</td>
<td>7.73</td>
<td>.84</td>
</tr>
<tr>
<td>A X B</td>
<td>1</td>
<td>.04</td>
<td>.00</td>
</tr>
<tr>
<td>A X C</td>
<td>1</td>
<td>65.75</td>
<td>7.14**</td>
</tr>
<tr>
<td>B X C</td>
<td>1</td>
<td>1.29</td>
<td>.14</td>
</tr>
<tr>
<td>A X B X C</td>
<td>1</td>
<td>1.99</td>
<td>.22</td>
</tr>
<tr>
<td>Within Groups</td>
<td>664</td>
<td>9.21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671</td>
<td>11.63</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
** p < .01
the receiving schools. Table 6 summarizes the significant results at the .05 level of the Scheffé test by recording the differences between group pairs, the F-values, and degrees of freedom. Table 7 makes the same summary for the four groups of students from sending schools.

TABLE 6

Summary of Significant Comparisons Between Groups for Program Effectiveness of Receiving School Students

<table>
<thead>
<tr>
<th>Groups</th>
<th>Diff.</th>
<th>F.</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Male (17.92) vs.</td>
<td>3.36</td>
<td>8.64**</td>
<td>7, 664</td>
</tr>
<tr>
<td>Non-Participating Male (14.56)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participating Female (18.58) vs.</td>
<td>2.96</td>
<td>5.52**</td>
<td>7, 664</td>
</tr>
<tr>
<td>Non-Participating Female (15.63)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participating Male (17.92) vs.</td>
<td>2.29</td>
<td>3.74**</td>
<td>7, 664</td>
</tr>
<tr>
<td>Non-Participating Female (15.63)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Participating Male (14.56) vs.</td>
<td>-4.03</td>
<td>10.89**</td>
<td>7, 664</td>
</tr>
<tr>
<td>Participating Female (18.58)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05
** p < .01

In addition to reported findings on program effectiveness according to objectives of the study, additional information from statistical treatment of the data gives an indication of non-participators' perception of the effectiveness of AVS programs. According to the operationally defined effectiveness criteria in Chapter I, one of the indicators of effectiveness is "expressed interest by non-participators to enter the program . . ." Two items (16, 17) in the non-participator's questionnaire bear upon this
**TABLE 7**

Summary of Significant Comparisons Between Means for Program Effectiveness of Groups of Sending School Students

<table>
<thead>
<tr>
<th>Groups</th>
<th>Diff.</th>
<th>F</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Male (18.97) vs. Non-Participating Male (15.86)</td>
<td>3.11</td>
<td>7.14**</td>
<td>7.664</td>
</tr>
<tr>
<td>Participating Female (18.57) vs. Non-Participating Female (15.41)</td>
<td>3.16</td>
<td>4.42**</td>
<td>7.664</td>
</tr>
<tr>
<td>Participating Male (18.97) vs. Non-Participating Female (15.41)</td>
<td>-2.72</td>
<td>3.45**</td>
<td>7.664</td>
</tr>
</tbody>
</table>

* p < .05  
** p < .01

perception of effectiveness. The question is asked concerning probability of enrolling in a vocational program, given an opportunity. Mean score for this response was 2.55 of a maximum of 5 points. The average score on the five items dealing with program effectiveness of the AVS program for the participator was 3.70. Through a comparison of the means and based upon the 5 point rating scale from very low (1) to very high (5), non-participators perceived the AVS program as between low and medium effectiveness while the participator perceived it as slightly less than high.

Student Awareness

A derived overall student awareness score (SAS) was computed for each subject in the sample. The maximum SAS was 33. Two types
### TABLE 8

**Trichotomous Assessment of Participating Student Awareness**

<table>
<thead>
<tr>
<th>Awareness Item</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>13. A major opportunity of AVS program: to train students with problems in academic subjects?</td>
<td>95</td>
<td>28</td>
<td>142</td>
</tr>
<tr>
<td>14. Vocational programs meet needs &amp; interests of most students?</td>
<td>202</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>15. Vocational programs provide student good foundation in order to take advanced training upon graduation?</td>
<td>302</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>16. Vocational programs help develop good citizens, respect for others &amp; learning to get along with others?</td>
<td>294</td>
<td>88</td>
<td>18</td>
</tr>
</tbody>
</table>

Note. — Number of Participating Students is 336.

Of questions—the "yes'no'don't know" and the rating scale—were used to assess SAS. Tables 8 and 9 show the numbers of subjects and percentages of the responses made to the trichotomous type questions. Subjects who answered positively or negatively indicated definite knowledge of or definite opinions based upon misconceptions relating to the AVS program. The "don't know" responses indicate uncertainty of knowledge. A basic division among subjects in the sample were those who participate in an AVS program and those who do not participate in a vocational program.

Findings reveal that 90 percent of the participators were aware of the opportunity to secure a basic foundation for further
### TABLE 9

Trichotomous Assessment of Non-Participating Student Awareness

<table>
<thead>
<tr>
<th>Awareness Items</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>18. A major opportunity of vocational school: to train students with problems in academic subjects?</td>
<td>140</td>
<td>42</td>
<td>140</td>
</tr>
<tr>
<td>19. AVS programs meet needs &amp; interests of most students?</td>
<td>253</td>
<td>75</td>
<td>37</td>
</tr>
<tr>
<td>20. Vocational programs provide students good foundations in order to take more advanced technical or vocational training upon graduation?</td>
<td>255</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>23. Vocational programs help develop good citizens, respect for others &amp; learning to get along with others?</td>
<td>188</td>
<td>56</td>
<td>32</td>
</tr>
</tbody>
</table>

Note.—Number of Non-Participating Students is 336.

and more advanced vocational training upon graduation from high school. Seventy-five percent of the non-participators were aware of the opportunity. Awareness of the goal for personal development, good citizenship, and good human relations was evidenced by 88 percent of the participators and 56 percent of the non-participators.

Of the non-participators; group who were not aware according to the responses, 10 percent reported a negative response and the other 34 percent did not know whether a purpose of the vocational program was personal development.

In response to query about meeting the self-perceived needs
and interests of students, 60 percent of the participators observed that the programs did meet the goals while 75 percent of the non-participators answered in the affirmative. Twenty-two percent of the participators believed that the offerings of the vocational program did not meet the self-perceived interests and needs of the students and 18 percent were uncertain about the offerings.

Information from the data revealed that 42 percent of the non-participators and 28 percent of the participators believed that a major opportunity of the AVS program is to train students who have problems in academic subjects. An additional 29 percent of the participators and 16 percent of the non-participators "did not know" whether or not this was an opportunity. In summary, only 42 percent of both groups observed that this was not a major opportunity.

Qualitative Ratings of Awareness

Results from Tables 10 and 11 show the degrees of awareness which subjects possessed. The tables give the mean of each item, number of students who rated the item for each of the five degrees (1-5) of awareness. Each of the four items encompasses a goal of AVS programs. The rating which subjects assign gives an indication of their awareness of the program and inherent opportunities.

Comparatively, both participators and non-participators are in general awareness to an average degree of the counseling and guidance in the schools which help them to know about AVS program offerings. The mean for participators was 3.51; the mean for
# TABLE 10

**Degrees of Participator Awareness**

<table>
<thead>
<tr>
<th>Items</th>
<th>Means</th>
<th>Very little</th>
<th>Rating Scale</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. Program furnishes opportunity to develop skills allowing one to enter the world of work immediately upon graduation.</td>
<td>4.01</td>
<td>7</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>18. Program offers opportunity to learn many occupations related to one's area of training.</td>
<td>3.82</td>
<td>8</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>19. Program has training for personal development such as making a good employee and learning to respect and work with others.</td>
<td>4.24</td>
<td>2</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>20. Program has information available about many occupations.</td>
<td>3.40</td>
<td>28</td>
<td>8</td>
<td>41</td>
</tr>
<tr>
<td>10. How effective is the counseling and guidance program in helping one to know about AVS programs, offerings and opportunities.</td>
<td>3.51</td>
<td>14</td>
<td>4</td>
<td>31</td>
</tr>
</tbody>
</table>
## TABLE 11

Degrees of Non-Participator Awareness

<table>
<thead>
<tr>
<th>Items</th>
<th>Means</th>
<th>Very little</th>
<th>Rating Scale</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td>25. AVS program furnishes opportunity to develop skills allowing one to enter the world of work immediately upon graduation.</td>
<td>3.87</td>
<td>1 0 14 29</td>
<td>137 85 25</td>
<td></td>
</tr>
<tr>
<td>26. AVS program offers opportunity for one to learn about many occupational fields.</td>
<td>3.86</td>
<td>3 26 8 43 87</td>
<td>76 26</td>
<td></td>
</tr>
<tr>
<td>27. AVS program has training for personal development such as getting along with others, making a good employee, and learning to respect and to work with others.</td>
<td>3.73</td>
<td>7 26 5 113 34</td>
<td>125 75 22</td>
<td></td>
</tr>
<tr>
<td>28. AVS program offers information about many occupations related to the programs that are offered.</td>
<td>3.64</td>
<td>9 27 8 104 31</td>
<td>131 65 19</td>
<td></td>
</tr>
<tr>
<td>13. How effective is the counseling and guidance in helping one to know about vocational programs (available in or near one's school) and their offerings.</td>
<td>3.42</td>
<td>22 33 10 117 35</td>
<td>109 55 16</td>
<td></td>
</tr>
</tbody>
</table>
non-participants, 3.42. A direct question, "do you feel that counseling and guidance have made you aware of AVS program and its opportunities?" was answered affirmatively by 67 percent of the non-participants. On the other hand, only 23 percent of the participants indicated that the counseling and guidance program was the source of their information about the program in which they participate.

Results indicate that AVS programs are emphasizing the personal development aspect of making a good employee and learning to respect and work with others ($\bar{x} = 4.24$). A second focus, according to findings among the participants, is the opportunity for skill development to permit immediate entry into the world of work.

**Comparison of Awareness Scores**

An analysis of variance was computed for SAS. Findings are reported in Table 12. Significance level was set at .05. Two significant differences were found—in the main effect of participation and in the interaction effect of type of school by sex.

Table 13 shows the mean student awareness scores by participation, and sex. The mean for the participants was 24.81 while non-participants had a mean of 24.20, indicating a greater awareness for those who are involved in the program. Sending students' mean was 24.36 and receiving students 24.65. Results relating to available information about all occupations show that non-participants have the opinion that more information is available to
TABLE 12

Analysis of Variance for Student Awareness

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7</td>
<td>30.90</td>
<td></td>
</tr>
<tr>
<td>Type of School (A)</td>
<td>1</td>
<td>14.22</td>
<td>0.95</td>
</tr>
<tr>
<td>Participation (B)</td>
<td>1</td>
<td>58.41</td>
<td>3.89*</td>
</tr>
<tr>
<td>Sex (C)</td>
<td>1</td>
<td>28.74</td>
<td>1.91</td>
</tr>
<tr>
<td>A X B</td>
<td>1</td>
<td>13.29</td>
<td>0.88</td>
</tr>
<tr>
<td>A X C</td>
<td>1</td>
<td>97.65</td>
<td>6.50*</td>
</tr>
<tr>
<td>B X C</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>A X B X C</td>
<td>1</td>
<td>4.02</td>
<td>0.27</td>
</tr>
<tr>
<td>Within Groups</td>
<td>664</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671</td>
<td>15.183</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

greater degree than do the participators. The girls from receiving schools were more aware than the other three groups.

No significant differences were found in awareness between sending and receiving school students. Neither was there significant difference in awareness between boys and girls.

A comparison of group means for the eight groups was made using Scheffé's test. No significant differences were found between any two pairs.

A summary of the findings of the analysis of variance shows significant difference in awareness between participators and
non-participants and in the interaction effect of type of school by sex.

**TABLE 13**

Mean Student Awareness Scores by Participation, Type of School, and Sex

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Sex</th>
<th>Participators</th>
<th>Non-Participators</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sending</td>
<td></td>
<td>24.62</td>
<td>24.45</td>
<td>24.54</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>24.40</td>
<td>23.94</td>
<td>24.17</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>24.51</td>
<td>24.20</td>
<td>24.36</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>24.58</td>
<td>23.51</td>
<td>24.05</td>
</tr>
<tr>
<td>Receiving</td>
<td></td>
<td>25.62</td>
<td>24.90</td>
<td>25.26</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>25.10</td>
<td>24.21</td>
<td>24.65</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>25.60</td>
<td>23.98</td>
<td>24.29</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>25.01</td>
<td>24.42</td>
<td>24.72</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>24.81</td>
<td>24.20</td>
<td></td>
</tr>
</tbody>
</table>

Counseling and Guidance Procedures Which Enhance the Awareness of AVS Program Offerings

Techniques and procedures including those used in counseling and guidance by schools to enhance awareness of AVS program offerings and opportunities were explored. Information was gathered regarding the methods used for publicizing or making students aware of vocational programs, offerings and opportunities. Table 14 exhibits a listing of the methods. If other techniques are utilized, they are not sufficiently noted by students to be listed.

According to the data, the assembly program is the leading method for publicizing and enhancing awareness. Both subgroups
<table>
<thead>
<tr>
<th>Method</th>
<th>Participators</th>
<th>Non-Participators</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>Rank</td>
</tr>
<tr>
<td>Assembly programs</td>
<td>205</td>
<td>61</td>
<td>1</td>
</tr>
<tr>
<td>Special orientation programs</td>
<td>173</td>
<td>51</td>
<td>2</td>
</tr>
<tr>
<td>Printed materials</td>
<td>153</td>
<td>46</td>
<td>4</td>
</tr>
<tr>
<td>Group guidance</td>
<td>99</td>
<td>29</td>
<td>9</td>
</tr>
<tr>
<td>Parent programs</td>
<td>75</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>Slides, films, visual aids</td>
<td>167</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Newspaper articles</td>
<td>113</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>Speakers--experts</td>
<td>145</td>
<td>43</td>
<td>5</td>
</tr>
<tr>
<td>Career conferences</td>
<td>100</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Orientation by AVS teachers or staff</td>
<td>102</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>None</td>
<td>29</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>
of the sample--participators and non-participators--listed it as first among techniques. Fifty-five percent of the non-participators and 61 percent of the participators listed the assembly program first. A total average within the sample was 58.5 percent. Out of the first five techniques which are reported, four of these are common to both subgroups. That is, the total sample reported the first five as including orientation programs such as class meetings, homeroom programs, and other special orientation programs, printed materials, and speakers--who were expert in their field. While the ranking for the two groups differed, the most commonly used techniques were the same. A majority of the participators (51 percent) reported orientation programs as the second most commonly used method, and 42 percent of the non-participators stated that printed materials were the second most commonly used technique for publicizing AVS program offerings. Another widely used method reported by participators was slides, filmstrips, and other visual aids to provide information. Fifty percent of the participators reported this use, and the procedure ranked third within the group. Non-participators ranked it sixth. Group guidance as a technique was ranked eighth by the non-participators, and ninth by participators according to use.

A summary of the sources from which students received information concerning the vocational programs is shown in Table 15. Again, the two subgroups were in agreement in reporting sources on five of the first six sources. Both groups reported the first
<table>
<thead>
<tr>
<th>Source</th>
<th>Participator</th>
<th>Non-Participator</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>Rank</td>
</tr>
<tr>
<td>Students in or previously in program</td>
<td>222</td>
<td>66</td>
<td>1</td>
</tr>
<tr>
<td>Counselor in individual or group meeting</td>
<td>166</td>
<td>49</td>
<td>2</td>
</tr>
<tr>
<td>Vocational teacher or personnel of AVS</td>
<td>152</td>
<td>45</td>
<td>3</td>
</tr>
<tr>
<td>Relative or out-of-school friend</td>
<td>132</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td>Other teachers</td>
<td>87</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Programs presented</td>
<td>57</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Reading pamphlets</td>
<td>55</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Jobs had or influence of an employer</td>
<td>53</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Newspaper</td>
<td>15</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Didn't know much about it</td>
<td>14</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Didn't know AVS program was available</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
source of information as students who are or were previously in the programs. Sixty-six percent of the participators and 65 percent of the non-participators (for an average percent of the total sample of 65.5 percent) named students as the primary source. Half of the total group (49 percent participators and 51 percent non-participators) reported the second source as the counselor who informed either in an individual conference or in a group meeting. The third most widely recognized source of information about vocational programs, according to the subjects who are themselves the consumers, is the vocational teacher or staff of the vocational programs (45 percent of the participators and 35 percent of the non-participators listed this as the third source). Data show that two other of the first six sources for both groups are relatives or out-of-school friends and special programs.

A small percentage of the participators (4 percent) reported that they "didn't know much about the program, the school placed me in it." Another 8 percent of the sample (non-participators) indicated that they did not know much about the AVS program, and an additional 4 percent indicated that they did not know an AVS program was available. A total of 16 percent did not know much about the program.

A comparison of most widely used procedures or techniques with the most widely recognized source of information about AVS for the students implies some discrepancy. While assembly programs were listed as first in the techniques used, special programs
(perhaps this includes assembly programs) was listed as fifth as a source recognized by the students in the total sample. The second method was orientation programs such as class meetings and homeroom programs while the second source was listed as the counselor—either in a group meeting or individual conference. Other information indicates that only 45 percent of the participants had had an individual conference with their counselor. The assumption can be made that group meetings were utilized to make students aware of the AVS programs. An interesting note which should be made from the information gathered from students is that 23 percent of the 43 percent who had had individual conferences had initiated the conference by making an appointment. An assumption is that the other 20 percent were counselor initiated. Fifty-seven percent of the participants had had no conference with their counselors.

A second comparison indicates that while the procedures, in general, deal with group and impersonal presentations to enhance awareness, the sources, in general, relate to individuals who have been of assistance in enhancing awareness of the students of AVS programs and offerings. As the findings point out, sources are in descending order according to percentages, peers within the student group, counselor, vocational teacher or other vocational staff, and relatives or out-of-school friends. Methods are, in the same descending order, assembly programs, printed material, expert speakers, orientation programs, slides and other visual aids.
A final observation taken from the findings is that 28 percent of the participators reported that teachers, counselors, or other school personnel recommend students who have problems in academic subjects for a vocational program. As previously reported, 28 percent of the participators and 42 percent of the non-participators believed that one of the purposes of the AVS programs was to assist those who have trouble in academic subjects. This finding lends credence to the negative connotation of vocational programs which students report.
CHAPTER V

DISCUSSION AND CONCLUSIONS

Overview

Data from the study, in general, delineate a more favorable image of the area vocational secondary school than has been presented of vocational education programs in the past (Hoyt, 1970; Maiden, 1972; Weagraff, 1972). Reports by these and other writers (Marrah, 1971; Evans, 1971; Lunder & Ringo, 1965) have stated a generally negative attitude and low social status associated with vocational programs. Findings from this study suggest that a major goal of vocational education, the training of students who have difficulty in academic subjects, still persists among those who participate in the AVS programs as well as the non-participators. On the other hand, participators in the AVS programs perceive greater effectiveness in the training programs for occupational development in which they are enrolled than non-participators perceive in the programs in which they are involved. Apparently, students who are non-participators in the AVS program fail to see the educational programs in which they are engaged or "going to college" as preparation for future occupational endeavors. An assumption may be that many non-participating students perceive "going to college" as an end pur se rather than a means to an end. Since there is
no sense of urgency in their occupational preparation, non-
participants perceive the AVS program as having from low to medium
effectiveness. AVS programs for the participators are perceived as
just less than highly effective.

Program Effectiveness

As scrutiny is directed toward effectiveness of the area vocational school, one must include all pertinent information to arrive at logical conclusions. If a criterion of effectiveness is participation in or desire to participate in the AVS programs, attention must be given to these overall statistics. Of 97 designated area vocational secondary schools, 8 were ineligible for the study because of the urban school limitation. Seventy-four of the remaining 89 failed to qualify because there was not a minimum of 10 students from sending schools enrolled in AVS programs. These facts constitute a basis for questioning the term, area vocational school as well as effectiveness of program for sending school students. Support is evident in these TEA statistics for findings of Weagraff (1972) and Robertson (1972) both of whom indicate that a very significant factor in student participation from sending schools is interaction and rapport between sending and receiving schools. The statistics also relate to and support the work by Rice (1972) who has found less than optimal enrollments in the area vocational schools of Texas. He also has found one of the major causes contributing to lack of participation by those outside the
receiving school is transportation. The finding, that non-participating students expressed low to average interest in entering AVS program, suggests generally that students do not perceive an unmet need for or interest in vocational education programs. This contrasts somewhat with Amberson's (1969) conclusion that vocational education programs are not available to all students who want or could profit from the programs. An alternative explanation may be that non-participating students do not realize the implications or opportunities of vocational programs as they are structured in the area vocational schools.

A comparison of effectiveness of AVS programs for the sending and receiving school students indicates that those students from sending schools perceive significantly greater effectiveness than students who are within the receiving school. One might account for this finding by consideration of the fact that sending school students generally come from smaller school districts which have fewer curricula offerings; and opportunities for occupational development are less than in the larger receiving schools. In this circumstance, comparative perception of the efficiency in meeting student needs might be significantly greater than for students who attend the receiving school and accept the expanded facilities and programs routinely.

Girls perceive greater effectiveness of the AVS programs than do boys. A survey of the programs suggests that offerings for boys are more numerous and varied than are those for girls. The fact
that there are fewer AVS programs for girls than for boys could result in a greater appreciation of opportunities by girls. If girls perceive the offerings as real opportunities, it is possible that effectiveness would be perceived as greater.

High effectiveness perceived by the participators is supported by Bensman's (1970) study which reported high school graduates felt that vocational training prepared them well for full-time job assignments. Further support is given by Hemler (1972) who ascertained effectiveness of different vocational programs by concluding that students who attained a marketable skill had higher success in gaining employment after graduation.

Student Awareness

Although student awareness was significantly greater for participators than non-participators, findings indicate that high awareness, both qualitatively and quantitatively of the programs and offerings, exists for the total sample. Comparison of the two groups gives evidence that non-participators were not aware of the broader goals and developments of the AVS such as citizenship development and good human relations—respect for and getting along with others. The finding of awareness by both groups is partially a contradiction to findings of Rice (1969), who reported that approximately half of the students, parents, and lay citizens were not aware of the existence of vocational programs. A time span of three years in the developmental process of vocational education
in Texas could account for the differences in findings. No dif-
ferences were found between sending and receiving school students
in awareness, suggesting that other reasons may exist to hinder
participation of sending school students in the area vocational
programs. Information gained in dialogue with AVS personnel sug-
gests one possible reason. Interest in programs by students in
the receiving schools is greater than the space available within
the programs. Because of lack of space, sending school students
are afforded the opportunity to participate after provision has
been made for receiving school students.

Counseling and Guidance Procedures

Results from the investigation show that students believed
counseling and guidance programs were slightly above average in
enhancing awareness of the AVS programs. Some dichotomy was
evidenced in the responses concerning the function of counseling
and guidance programs. While 67 percent of the non-participators
felt that counseling and guidance procedures had made them aware of
offerings, only 23 percent of the participators indicated counseling
and guidance as their source of information about the program. In
addition, the leading technique for communicating to students about
the program was assembly programs. Students ranked "counselor" as
source of information second to peer group as an information source.
Findings are in contrast to Bensman (1970) who found that students
perceived counseling and guidance as inadequate. Results also
contrast with the New York State Education Department (1968) which found the high school counselor as the most significant source in selection of vocational courses. Findings within the scope of the study suggest that counseling and guidance performed in relation to AVS programs may serve students' occupational interests and needs more effectively than in the past.

Summary

Findings from this study are itemized according to the dependent variables of program effectiveness and student awareness. In addition counseling and guidance procedures utilized to enhance student awareness are summarized.

Program Effectiveness

1. The type of school from which the students came made a significant difference at the .05 level in their perception of AVS program effectiveness.

2. Significant differences at the .05 level in perception of program effectiveness was demonstrated according to the factor of participation in the AVS program.

3. No overall sex differences in perception of program effectiveness was shown.

4. A significant interaction effect for type of school by sex was found at the .01 level in perception of program effectiveness.
Student Awareness

1. Participation in AVS programs yielded a significant difference at the .05 level of overall student awareness of program offerings.

2. A significant interaction effect for type of school by sex was found at the .01 level for student awareness of offerings and opportunities.

Counseling and Guidance Procedures

1. The leading techniques for publicizing and enhancing awareness are (a) the assembly program, followed by (b) orientation programs such as class meetings, homeroom programs, and other special orientations; (c) printed materials, (d) expert speakers, and (e) filmstrips and other visual aids.

2. Primary source of information about AVS programs is (a) students who are or were previously in the program, followed by (b) counselor through individual or group conferences, (c) vocational teacher and personnel of AVS, (d) relatives and out-of-school friends, and (e) special programs.

3. Consistency among students in reporting techniques used to enhance awareness and primary sources of information about the AVS programs was demonstrated.
Conclusions and Implications

A purpose of this study was to investigate the effectiveness of area vocational secondary schools as it relates to participation, type of school, and sex. Findings support the conclusion that AVS programs are highly effective in meeting the self-perceived needs and interests of those students who participate in them. Effectiveness for non-participators of AVS programs is below average. According to stated criteria for the non-participator—that of participation or interest in participation—this assessment is inevitable. In general, non-participators did not perceive a need to become involved in any AVS program, nor did they indicate interest in participation. In other words, students who are not involved in the vocational program within the secondary school do not manifest participatory interest in this type of occupational development; nor do they perceive the program as effective for those who are AVS participators. In this context the question of image and status of the AVS program is raised. Based upon the results of the study, one may conclude that the AVS image reflected through student perception lacks the necessary status and prestige which it needs to produce maximal benefits to the occupational development of students. Although the perception of the value and worth of vocational education has been enhanced in very recent years, it would appear that a need yet exists for a concerted effort to delineate and emphasize the real values of such a program. Eradication of the astigmatic image
of vocational training must be achieved. Until society and students perceive occupational training at the secondary school level as equally desirable and beneficial as a college education, efforts toward occupational and career development will be irrevocably impaired. The need then is not for increased effectiveness but for a change in the image of vocational training at the secondary education level in addition to a change in attitudes toward work which will enhance the dignity and integrity of all occupations. With these conclusions the first objective of the study has been met.

A second objective was to assess student awareness of vocational programs. Results of the study lend support to the conclusion that overall awareness of AVS programs (according to the 5 point scale) is high. This awareness extends to both participating and non-participating students in the AVS programs. An observation may be made concerning the depth of awareness. Students who are not involved in the AVS program apparently do not have the understanding of opportunities available within the curricula. Evidence suggests that while there is awareness of the existence of these programs, little articulation can be made concerning the awareness of specifics within the program.

Conclusions concerning exploration of the counseling and guidance procedures and techniques are based on findings. These findings indicate that techniques and procedures used to enhance awareness of the AVS program are perceived consistently by both students who participate in the program and those who do not participate in a vocational program. Consideration of the various techniques and guidance procedures
used (i.e. assembly programs and special programs) leads to a conclusion that responsibility for the development of awareness is shared by all personnel and may not generally be counseling and guidance directed. If these procedures are implemented by counseling and guidance personnel, criteria for counseling effectiveness (i.e. a personal approach and an informal rapport) have been ignored. Accordingly, a re-evaluation of procedures and techniques which increase student awareness would focus on the personal and informal rather than impersonal and formal procedures and techniques. Sources of information listed by students indicate that awareness was enhanced through individuals within the school setting and not through formal meetings and material's. Personal contacts and the informal approach were reported as important in developing awareness. Re-alignment to emphasize a team approach for personal, informal interaction logically would increase and deepen awareness of occupational development.

A number of implications may be drawn from the findings of this study. First, note should be made that of the 97 designated and operating area vocational secondary schools in Texas during 1972-73, only 15 or approximately 15% of these had 10 or more students enrolled in AVS programs from sending schools. A question must be raised: Are AVS programs, in reality, serving the objectives of the State Plan for Vocational Education and meeting the needs of all students within the county-wide vocational districts created by H.B. 490? In other words, if the program is designed and operated
primarily for students in the receiving or local school, then the term, "area", used to designate the vocational schools is a misnomer. These schools, can and should offer equal opportunity to each student within the vocational school district, regardless of his scholastic residence.

Another implication may be found in a consistent response of students concerning the value of vocational training in keeping potential drop-outs in school. Perception of the student sample indicated that AVS programs were a very strong, positive force in helping youth stay in school. Interrelated with the problem of drop-outs and the constructive contribution which vocational training makes to drop-out reduction is the focus and emphasis of area vocational school programs. Articulated in another way, the question may be posed: at what point or level should AVS programs be made available to individuals? If the literature is an indication, the trend has been to place emphasis and great financial support at the post-secondary level toward training of individuals who failed during their earlier school years to develop sufficiently to cope with the world of work. Logic mandates that in the future, increased benefits to the individual and to society can accrue through increased emphasis and focus being placed at the secondary school level. Additionally, expanded programs of exploration, guidance and counseling at pre-secondary levels could provide necessary preparation for such training.

Again the concept of meeting the needs of all youth within the county-wide vocational school district is noted. The implication from this investigation is that youth whose scholastic residence is outside
the local school district in which the area vocational school is located are not receiving optimum benefits of the program. Information from the study suggests that these youth, if they can get into the program at all, often have to select a program which "has space available." This circumstance militates against the individual's interests being served.

If the area vocational school programs are to be maximal in reducing drop-out rates and offering optimum opportunity to the non-college bound student, steps must be taken to legitimize vocational training as a desirable alternative in educational programs. In addition, programs must be enlarged and expanded "to provide space" in all programs for all individuals within the county-wide vocational school district.

In yet another facet, those students who are non-participators in the AVS programs, apparently do not perceive "going to college" as having any relationship to occupational or vocational development. According to data gathered, these youth regard college as an end in itself, rather than a mean to an end. If society truly inculcates within all youth the ideal of respect for and dignity of work, then the goal of preparing students for an occupation will be attainable regardless of the directions taken in educational endeavors.

Recommendations

After consideration has been given to results of the study, trends that were suggested from the data and perceptions which were delineated, the researcher makes the following recommendations:
1. That more research be conducted which bears upon the lack of participation in AVS programs, particularly as it relates to students in sending schools.

2. That consideration and study be made of the practicability and feasibility of reorganization and consolidation of administrative units of schools based upon the County-Wide Vocational School Districts, as provided in H.B. 490.

3. That experimental programs or methods to alter the status and image of the vocational training programs in secondary schools be initiated within the communities and schools.

4. That in-service and pre-service education for all educators be implemented which includes experiences contributing to the development of positive attitudes toward vocational training as a desirable alternative to college education.

5. That informative public relations efforts be implemented toward creating the attitudes within each school and community that all work is honorable and each student has a right to respect and integrity regardless of his occupational interests and aspirations.

6. That further study should be made of the financial responsibilities and obligations involved in the development and maintenance of area vocational schools; and plans developed to apportion that responsibility equally among communities whose children receive the benefits. Care should be taken to ascertain that all youth within a district have equal access to AVS programs.
7. That equality of opportunity be assured for the sending school students by the guarantee of a percentage of "available spaces" within each AVS program. The percentage guaranteed should be commensurate with the financial responsibility assumed by the districts.

8. That further study be conducted into ways that local school districts' tax monies may be pooled and expended to achieve optimum development of AVS programs, regardless of the location of the area vocational school within the county-wide vocational school district.

9. That needs of all the vocational school district youth should be assessed rather than only the local (receiving) school youth, in order that student interests and needs are incorporated into program planning.

10. That a widely representative group of lay leaders, school personnel, and students from each of the school districts which are served be formed to participate in the planning and operation of area vocational schools. This group should be utilized in needs assessment, planning and development of the AVS program, and implementation of the program. The purpose of community and school involvement is to increase understanding and appreciation of vocational education and to develop wide interest in such programs.
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