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BULLETIN

MASTER'S

THESIS

ABSTRACTS

St. Cloud State College

ST. CLOUD, MINNESOTA

MASTER'S THESIS ABSTRACTS

BULLETIN

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Foreword

This publication, the third of a series began in 1962, contains the Master's Thesis Abstracts of the Master's Theses completed by graduate students at St. Cloud State College during the period from July 1963 through June 1965.

A bound copy of each thesis is on file in Kiehle Library on this campus. The library copy of each thesis is available for use on an inter-library loan basis.

Copies of this bulletin may be obtained from the School of Graduate Studies, St. Cloud State College, St. Cloud, Minnesota 56301.

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ART

AN EXPLORATION OF MATERIALS, TOOLS AND TECHNIQUES USED IN SAND BLAST CARVING IN THE GRANITE INDUSTRY AND THEIR APPLICATION IN THE FINE ARTS

by Roger D. Schwitalla

PROBLEM: The purpose of this investigation was to determine the feasibility of adapting sand blast carving materials, tools and techniques used in the local granite industry to apply to an original work of fine art. Presently this type of production is used primarily as a monumental or cemetery stone product. This paper drew together existing literature concerning procedures used with the actual experience of their application on a work of bas-relief sculpture. It was intended that upon the completion of the granite sculpture, it would be submitted to a building planning committee of the Fine Arts Building of St. Cloud State College in the hope of its eventual use as a permanent ornamentation therein.

PROCEDURE: After completing an investigation of literature within the St. Cloud State College library and the St. Cloud Public Library, the investigator recorded four interviews with active sand blast carving specialists employed in local granite shops. A special training program was set up in the shop of the West Side Granite Company, St. Cloud, Minnesota. Two weeks of preliminary instruction was taken before the actual sculpturing took place.

FINDINGS:

1. A comparison could be made between the sculptural possibilities of the sand blast method and the techniques employed by Donatello, Italian Renaissance bas-relief sculptor.

2. Had Donatello lived in the twentieth century, he could much more easily have accomplished his works using the sand blast method.

3. The process as it stands today needs more improvement, especially in equipment, before detail work similar to Donatello's could be achieved.

4. The technique of sand blasting might be used as an auxiliary aid in bas-relief sculpture.

5. The use of sand blast carving for extremely high relief was not recommended. Since the sand would be expelled at such a high velocity, there existed the danger of the blast bouncing off a protruding area, causing damage to the piece.

6. It was felt that the sand blast method might be employed within the school situation. It was suggested that on the high school and especially the college level it would be quite feasible.

7. A great deal more must be done with this method. It must be explored in the hope of refining the equipment so as to minimize the bulk of the machinery and to create nozzles and abrasives capable of etching more delicate lines.

SUMMARY AND CONCLUSIONS: The feasibility of sand blast carving as a fine arts medium was not only reasonable, but a "natural" for the central Minnesota area. The availability of materials and equipment should be an encouragement to the more frequent use of granite and the sand blast carving technique in the fine arts.

THESIS COMMITTEE: Dr. Algalee P. Adams, Chairman; Dr. Jack Jones

DATE OF COMPLETION: August 1964

BUSINESS EDUCATION

A FOLLOW-UP STUDY OF THE BUSINESS EDUCATION GRADUATES OF ST. CLOUD STATE COLLEGE, 1950-1959

by Robert L. Buck

PROBLEM: The purpose of this follow-up survey of the business education graduates of St. Cloud State College for the years 1950-1959 was to analyze the present status of the graduates and to determine if revisions were necessary in the present curriculum.

PROCEDURES: This survey was carried out in five steps. The first step involved the compilation of a complete mailing list of the 260 business education graduates. The second step involved a review of the related literature. Step three consisted of the preparation of the questionnaire under the supervision of the business education department. Step four involved the mailing of the questionnaire and subsequent follow-up procedures to assure a maximum return. The analysis of the data obtained in step four, constituted step five. Of the 260 graduates who received questionnaires, 207 or 79.6 per cent returned usable replies.

CONCLUSIONS:

1. The majority of the business education graduates who responded entered the profession for which they were prepared. A little over half of these business teachers remained in the teaching profession.

2. Responses from the graduates indicated that they believed the placement bureau did not adequately serve their needs.

3. The business education department is serving its primary function of providing business teachers for surrounding communities.

4. The majority of the business education graduates have made or are making attempts to improve their educational background. If the respondents follow through on stated intentions, the greatest percentage of their advanced degrees will be earned at St. Cloud State College.

5. When based on a yearly salary the business teachers included in this study are not receiving compensation comparable to the compensation received by business education graduates who did not enter teaching.

6. The business teachers are teaching in a variety of educational institutions, but the majority are teaching in senior high schools.

7. Since a majority of respondents have taught their minor subjects, it would appear that a minor is still appropriate.

8. There is room for improvement in the rapport between the college business faculty and business teachers.

9. On the basis of the responses of this sample of business teachers a one-year internship for prospective business teachers does not appear to be indicated.

10. On the basis of the responses of this sample a large majority of the business teachers believe that a distributive education program would be an important addition to the business education curriculum.

11. The results indicated that the majority of the business teachers believed that developing courses of study, methods of grading, and organizing instructional material are three major problems confronted by beginning business teachers that could be partly resolved in the classroom.

12. The majority of the business teachers felt they were adequately prepared in most of the business education curriculum areas. However, they believed that more emphasis should be placed on developing skills in lecturing, discussions, and leading students' projects and activities.

13. The business education training received by non-teachers and former teachers provided the background which was needed for securing their present positions.

RECOMMENDATIONS:

1. An investigation of the placement bureau facilities to determine if the bureau should be expanded in order to serve students more effectively.

2. The business education faculty make an effort to increase rapport with the business teachers by encouraging (1) personal visitation, (2) personal correspondence, and (3) a promotion of an organization specifically designed for business teachers who graduated from St. Cloud State College.

3. A study of the student teaching program in order to determine if the students are being supervised effectively.

4. A further investigation be conducted to determine the desirability of a distributive education program at St. Cloud State College.

5. An improved program of counseling be initiated by the business education department to enable it to better serve the needs of its students. Specifically these areas should be strengthened.

a. Interview and application procedures.

b. Selection of appropriate minor fields for business education majors.

c. Career possibilities in the field of business education.

d. Methods of improving teaching effectiveness (i.e., effective expression, dress, habits, etc.)

6. A continued effort be made to improve teacher's salaries in order to attract more students into the teaching profession and encourage the retention of good teachers.

7. A further investigation be made to determine if the graduate program in business education should be expanded to accommodate returning graduates.

THESIS COMMITTEE: Dr. James G. Marmas, Chairman; Dr. Lyle E. Ball

DATE OF COMPLETION: August 1963

A DEVELOPMENT OF A PROGRAMED INSTRUCTION MANUAL FOR FINGERHUT MANUFACTURING COMPANY, ST. CLOUD, MINNESOTA

by Barbara Ann Sveta

PROBLEM: It was the purpose of this thesis to develop a training manual for the station operators in the Accounts Receivable Department, Fingerhut Manufacturing Company, St. Cloud, Minnesota. Because of an office staff of 350 and a labor turnover of six per cent, a method of training personnel quickly and efficiently was necessary. The programed instruction method was selected to accomplish this objective.

PROCEDURE: The processes used in the problem included: (1) a review of literature in the areas of training and programed instruction; (2) a study of the operations of the Accounts Receivable Department of Fingerhut Manufacturing Company by on-the-job training for approximately two months; (3) the development of a programed instruction manual for the station operators; and (4) a pilot testing of the effectiveness of the manual.

FINDINGS: The programed manual proved to be effective in reducing the training period and increasing the quality of personnel. The training period was reduced from eight weeks to six weeks, a reduction of 25 per cent. The quality of personnel was increased by 30 per cent.

SUMMARY AND CONCLUSIONS: Programed instruction is a rapidly growing field for training and education. Its use in this situation involved a linear program with multiple-choice responses. After the programed manual was completed, a testing situation was devised to measure its effectiveness.

The initial experience with programed instruction at Fingerhut Manufacturing Company proved to be effective. In addition to reducing the training period and increasing the quality of personnel, the programed manual provided a standard instruction medium for all employees, served as a guide and reinforc-

ing agent for the Learner, and permitted economical utilization of professional training personnel.

From this study, Fingerhut Manufacturing Company plans to add a programming staff within their organization.

THESIS COMMITTEE: Dr. James G. Marmas, Chairman; Dr. Paul E. Ingwell
DATE OF COMPLETION: August 1963

ENGLISH

MELVILLE AND MOBY DICK: THE ROYALTY MOTIF

by Gerald H. Dodge

PROBLEM: It was the purpose of this study to analyze the many allusions, references, and symbols concerning royalty to be found in Herman Melville's novel, *Moby Dick*. The aim was to discover if these elements constitute a motif of royalty, and how such a motif would affect interpretation of this novel.

PROCEDURE: The various allusions, references, and symbols were examined for their significance in context. These were categorized, as fully as possible, into groups reflecting royalty: (1) of Shakespearean influence, (2) of Biblical origin and concern, (3) concerning Melville's God-King concept in *Moby Dick*.

FINDINGS: The elements of royalty were found to constitute a motif, one which establishes themes of nobility and leadership. The royalty motif establishes Melville's concept of man's potential: (1) to be a leader, (2) to be noble, (3) to be of royal character. Melville's choice of allusions, references, and symbols emphasizes the powers, liberties and responsibilities, as well as the burdens and griefs, involved in leadership.

SUMMARY AND CONCLUSIONS: The royalty motif, as one of many themes in *Moby Dick*, identifies Ahab's struggle with that of all mankind. The struggle is the paradox of man's efforts to be knowledgeable in spite of human limitations.

THESIS COMMITTEE: Dr. Lewis C. Smith, Chairman; Dr. Paul C. Cairns
DATE OF COMPLETION: August 1963

A BIBLIOGRAPHICAL STUDY OF THE SEVENTEENTH CENTURY EXTANT TEXTS OF JOHN FLETCHER'S *BONDUCA*

by Thomas John Jambeck

PROBLEM: This study presented a bibliographical analysis of the three extant seventeenth century texts of John Fletcher's *Bonduca* i.e. the manuscript of the play as it appears in a Malone Society reprint by W. W. Gregg, the First Folio edition of 1647, and the Second Folio edition of 1679, in an attempt to arrive at a text which would seem to represent the dramatic work as the author finally intended it. A bibliographical analysis, as opposed to a critical literary analysis, is mainly concerned with a comparative description of an author's available texts as to their press variants rather than their literary, poetic, or dramatic values.

PROCEDURE: The initial investigation of this study constituted an historical collation of all substantive and semi-substantive variants as noted in the comparison of the three seventeenth century extant texts of *Bonduca*. All variants are noted; however only those which substantively affect the dramatic text

are discussed to any length in the chapter of critical notes which consider each variant as to its relationship to the text. Of particular value in the evaluation of the press variants were R. C. Bald's preliminary consideration of *Bonduca* in his *Bibliographical Studies in the Beaumont and Fletcher Folio of 1647* and W. W. Gregg's *Bonduca*.

FINDINGS: The three extant texts utilized in this study constitute an ancestral line of development in that the manuscript represents a scribal transmission of the play from the author's actual foul papers; the first and second folio texts constitute a reading drawn from a prompt book copy of the dramatic text which is now lost. However, in spite of the play's line of development from the author's earliest draft to the first published version, the text of the play, nevertheless, represents one which has undergone a considerable amount of emendation from various sources: censorship, scribal technique, editorial emendation, printing technique, authorial revision, etc. It is, therefore, evident that none of the above texts constitute of themselves the "fair copy" which the author finally produced; rather their variant readings would seem to indicate that the play *Bonduca* in its extant form represents a text which is merely a reflection of Fletcher's intended dramatic text.

SUMMARY AND CONCLUSIONS: Although the textual scholarship of the Beaumont and Fletcher canon has, for the most part, constituted a rather searching and complete study, the body of textual criticism related to John Fletcher's *Bonduca* has been represented only by several cursory examinations. This lack of textual criticism is especially apparent in the extant editions of *Bonduca*, for, it would seem, that no edition exists which considers as an integral part of its editorial process an historical collation of all three of the extant seventeenth century editions of that play; therefore a need exists for a critical edition of Fletcher's *Bonduca* which would utilize such a collation.

THESIS COMMITTEE: Dr. George E. Ferguson, Chairman; Dr. Paul E. Cairns
DATE OF COMPLETION: October 1964

AN INDUCTIVE APPROACH TO THE STUDY OF THE STRUCTURE OF MODERN POETRY IN HIGH SCHOOL

by Shirley J. Slocumb

PROBLEM: The high-school English teacher must have personally mastered the principles of modern poetry which distinguish it from other developments in poetry in order to teach these principles to his students. It is recognized that the teacher may have need for a strengthened background in this area. The central problem, therefore, is to develop a procedure of teaching to fulfill the needs of both teacher and student and to effect in their experience a degree of mastery which will enhance their appreciation and enjoyment of modern poetry. The inductive approach through structure was chosen as the most effective means of meeting these needs.

PROCEDURE: Background reading preparatory to the recommendations of this study included critical and historical grounding in the understanding of modern poetry as well as poetry itself as the substance to be experienced and analyzed.

Several devices were used to promote a more effective experience of modern poetry: (1) the review of a series of representative high-school literature textbooks to examine those elements stressed at the upper three grade levels; (2) a summary of critical theory with emphasis on the teacher's classroom adaptation; (3) ample exemplification of structure in specific poems; (4) simulation of the classroom setting, with workability and class response in view.

Architectural workmanship was the analogy chosen to develop the idea of structure and to create an atmosphere of involvement in poetry. Through experiences arranged in study-guide and project form, the transition is gradually made into the complexities of modern poems.

An original critical analysis climaxes the unit activities. The student, exercising critical principles gained from prior teacher-guided experiences, is thus able to work independently in making new discoveries. The inductive method of experiencing poetry in the classroom has trained him in using the tools of analysis.

FINDINGS: Several observations made in the initial phases of this study were borne out as research progressed: first, that the importance of modern poetry is often underestimated because of a general unfamiliarity with its idiom; second, that modern poetry is one of the problem areas in the English teacher's preparation and practice; and third, that very little professionally directed material has been written for this area. However, available reference materials were adapted, including works of criticism, anthologies of modern poetry and professional journals.

The teacher is enabled by this study to assess his readiness to teach as well as his students' readiness to receive the concepts of modern poetry; both are helped to approach modern poetry using classroom materials and to utilize previous experience moving from the traditional to the modern idiom.

SUMMARY AND CONCLUSIONS: This study helps to co-ordinate a wide range of material under a unified approach and to translate theory into practice. The techniques used in teaching traditional poetry were adapted to this approach through guided experiences.

It is expected that the student will be able to continue using these tools of analysis in his future reading of poetry. Of equal value will be the teacher's increased professional command and artistic liberation.

THESIS COMMITTEE: Dr. Paul E. Cairns, Chairman; Dr. Martha G. Worthington

DATE OF COMPLETION: July 1963

GEOGRAPHY

AN ANALYSIS OF COLLEGE FRESHMAN UNDERSTANDING OF SELECTED GEOGRAPHIC FUNDAMENTALS

by Philip R. Behr

PROBLEM: The basic purpose of this study was to search for solutions to problems related to teaching a required general education course in geography at the St. Cloud State College. Specifically, the problem is to (1) measure the level of overall understanding of geography; (2) measure, compare, and analyze scholastic levels in four categories of geographic knowledge; (3) search for relationships between scores of standardized ACT tests and the scores on the entire geography pretest and each of its component parts; (4) search for predictors of success in a college freshman general education geography course; and (5) search for relationships between geographic scholastic achievement of college freshmen and the location and size of the secondary schools from which they graduated.

PROCEDURE: A geography pretest was constructed for this study. It was divided into four subtests, each one testing a type of fundamental geographic knowledge. It was administered as a single unit to a general education geography class of 409 students at the St. Cloud State College near the first of the spring quarter in 1964. Two hundred ninety-three test scores that represented the geographical knowledge of college freshmen were selected for this study. Three groups, the students with the top fifty scores, the median group of fifty, and the students with the bottom fifty scores were then selected from the two hundred ninety-three members of the total experimental group of 293 students.

By computing mean scores of the total test and each subtest for the total experimental group and each of its subgroups, the comparative level of geographic knowledge of the total group and each subgroup was measured.

Correlation coefficients of ACT scores and geography pretest scores for each experimental group of students were computed in search of relationships between proficiency in geography and proficiency in other disciplines. The geography pretest was correlated to the final grade for the course and to the students' high school rank.

Relationships between geography pretest scores and the size and location of the high schools that graduated the students were examined.

FINDINGS: As a result of research it was found that:

1. The pretest mean score of the bottom fifty students was 51 per cent of the mean score of the top fifty students.

2. Correlation coefficients of ACT scores and the total pretest were: (1) English .30, (2) Mathematics .54, (3) Social Studies .75, and (4) Natural Sciences .90.

3. The correlation coefficient of ACT mathematics scores and geographic "skills" test scores was .64 for group A and .23 for group C.

4. Other correlation coefficients of geography pretest scores and ACT test scores ranged from -.31 to .90.

5. Correlation coefficients of final grades for the course and (1) high school rank and (2) final grade for the course were .15 and .85 for the experimental group as a whole.

6. No important relationship was found between the size of secondary schools and geography pretest scores.

7. Secondary schools that sent the poor students to the geography class were slightly more widely dispersed than those that sent the high scoring students.

SUMMARY AND CONCLUSIONS:

1. The large range in scholastic level within the class makes curriculum planning difficult. The class should be divided according to scholastic ability.

2. The students are less proficient in some fundamentals than in others; the curriculum should be adjusted accordingly.

3. There is a positive correlation between geography scores and ACT test scores. An effort should be made to find means of using ACT test results for both diagnostic and predictive purposes in teaching an introductory geography class in college.

4. This research should be repeated with minor variations to varyify the research already done and to provide additional information.

THESIS COMMITTEE: Dr. Robert H. Brown, Chairman; Dr. Paul E. Ingwell
DATE OF COMPLETION: August 1964

HISTORY

A HISTORY OF THE MELROSE BEACON AND ITS EDITORIAL POLICY

by Ernest J. Bergeron

PROBLEM: From early American times, the small weekly newspaper has been an important segment of rural community life. Since the 1890's, Melrose, Minnesota, has been served by the weekly newspaper, **The Melrose Beacon**. This study proposes an historical examination of that publication and a presentation of its history. Secondly, this study proposes to tender the **Beacon's** concept of an editorial policy.

PROCEDURE: Material for this study was principally collected from the files of **The Melrose Beacon** and other area newspapers, from the Minnesota State

Historical Society Library and old newspaper section, and from personal interviews with members of the **Beacon** staff and early pioneers of the area. Other data were obtained from **Beacon** business records, from professional journalism books and periodicals, from various county historical agencies, and from official county records.

FINDINGS: The **Melrose Beacon** was founded in 1890 by Dr. J. E. Campbell, under the name, **Melrose Sun**. Between 1875 and 1895, four other **Melrose** newspapers were started, but all proved to be economic failures. Early **Beacon** editors conducted their businesses with a minimum of equipment, capital, and patronage. The first thirty years were often turbulent and uncertain; the paper was owned by six different publishers prior to 1917. Community reaction was varied and sometimes "stormy" to each editorial change.

"Boiler-plate" print made publication of the "hand-set" country weekly possible. Syndicated printing houses supplied "boiler-plate" news, often a month or more old, regarding events and movements in eastern states and foreign countries. The early publications served as a purveyor of entertainment or instruction along literary, religious, educational, and scientific lines. The **Beacon** was editorially "active" in politics only during its earlier years. The paper was a continuous booster for the community's economy and culture.

The **Beacon** grew slowly during the early years and reached a point of stability about 1910. The years 1917-1964 witnessed an almost twenty-fold multiplication of its physical assets.

SUMMARY: During the seventy-four years of its existence, the **Beacon** first survived and later grew because of good management, sound editorship, favorable location, and because it offered a professionally reliable and indispensable service available through no other medium. The **Beacon** kept abreast of the times by expansion in every printing department and by the purchase of a second newspaper. The paper has fulfilled the dreams of its many editors — it is a prosperous, dynamic, influential, and growing business enterprise.

THESIS COMMITTEE: Dr. Edwin H. Cates, Chairman; Dr. Calvin W. Gower
DATE OF COMPLETION: August 1964.

ANTI-JAPANESE LEGISLATION AND ITS EFFECT ON JAPANESE-AMERICAN FOREIGN RELATIONS

by Arthur Jacob Hoff

PROBLEM: After half a century of cordial relations between Japan and the United States a basic change occurred with the ending of the Russo-Japanese War in 1905. From that year until the raid on Pearl Harbor, suspicion and hostility gradually undermined foreign relations. The traditional interpretation of this breakdown which culminated in war stresses the rise of militarists in Japan and Japanese imperialism in Asia. It is the intention of this study to examine the potential of anti-Japanese legislation in the United States as another factor in the deterioration of Japanese-American relations prior to World War II.

PROCEDURE: Most information was gathered at the Law Library and the Walter Library, University of Minnesota. Other valuable resource centers were the Minneapolis Public Library and the St. Cloud State College Library. Public documents proved the most useful primary material, especially those attained from federal and state statute books. Other publications of government, including the U.S. Congressional Record, U.S. Foreign Relations, Congressional Committee reports, and reports of the U.S. Bureau of the Census were used extensively. Legal periodicals and law journals furnished much interpretive material relative to the legislation in question, while a sense of the times developed from readings in learned and popular periodicals and from newspapers.

FINDINGS: Anti-Japanese legislation was a continuation of other racial policies in America, but especially those directed against the Chinese. California became greatly concerned after the annexation of Hawaii, with its large number of Japanese laborers. The astonishing victory by Japan over Russia aggravated Californians into taking anti-Japanese actions.

The most controversial anti-Japanese activities were the segregation of Japanese students in San Francisco, the California Alien Land Law of 1921, and the exclusion of Japanese immigrants in 1924. After each of these actions, the topic of war between Japan and the United States reappeared, and strong official protests were lodged by Japan in 1913 and 1924. In each case treaty rights were involved and the federal administrations, being responsible for treaty enforcement as well as foreign relations, were beseeched by Japan to resolve the problems equitably. The administrations of Theodore Roosevelt, Taft, Wilson and Coolidge all fought the anti-Japanese legislation, and all contended such legislation was an affront to Japan and a serious strain upon our relations as nations.

The legislation entered in this paper proved to be specifically directed toward the Japanese, and was not simply applicable to them within the framework of general legislation. Japan judged the irritating legislation as racially discriminatory with little if any relationship to American national self-interest. The Japanese, a people seeped in self-pride, never forgot our actions and they retained them as issues until the outbreak of war in 1941.

SUMMARY AND CONCLUSIONS: The evidence presented in this study suggests that our anti-Japanese legislation and policies were never fully removed from the context of other problems with Japan in the field of foreign affairs. It is apparent that each phase of our domestic anti-Japanese activities helped destroy friendly relations with Japan. The study further concludes that there are legitimate grounds for broadening the base of knowledge before any final evaluation on the causes of American involvement in World War II is made.

THESIS COMMITTEE: Dr. Edwin H. Cates, Chairman; Dr. Calvin W. Gower
DATE OF COMPLETION: July 1963

THE IMPERIALIST AND ANTI-IMPERIALIST CONTROVERSY IN THE UNITED STATES NEAR THE CLOSE OF THE NINETEENTH CENTURY

by Donald S. Opatz

PROBLEM: As a result of the war with Spain in 1898 the United States has suddenly acquired an overseas empire. The traditional admonition of George Washington, in regards to isolationism, was temporarily discarded. There were many Americans [Imperialists] who favored an expansionist foreign policy approach. There were also some Americans [anti-imperialists] who were adamant in their opposition to acquiring lands non-contiguous to the United States. The purpose of this study is to trace the imperialist and anti-imperialist controversy in the United States from 1865 to 1905.

PROCEDURE: The material presented in this paper was accumulated through library research. Great importance was given to contemporary writings of the period, such as newspapers, magazines, the Congressional Record, and messages of the Presidents and other influential individuals. The resources of the University of Minnesota Library, St. John's University Library, St. Cloud State College Library, the Minneapolis Public Library, and the Hill Reference Library of St. Paul were frequently utilized.

FINDINGS: Near the close of the nineteenth century, the United States acquired land as near as Puerto Rico and as distant as the Philippines. This possession of land non-contiguous to the country was not acquired without strong opposition by anti-imperialists, the major tool of which became the Anti-Imperialist League. Many influential Americans tried desperately to reverse the

trend toward expansionism that began to infiltrate the foreign policy of the United States during the post Civil War. The anti-imperialists were unsuccessful in their endeavor. The imperialists, who long advocated an expansionist foreign policy, had obtained by 1898 an overseas empire for the United States.

SUMMARY AND CONCLUSIONS: The many speeches and articles of the imperialists stressed Anglo-Saxon superiority, national destiny, Providence of God, and the right of conquest over lesser civilized peoples in support of overseas expansion. Anti-imperialists, in contrast, believed that overseas expansion violently contradicted the principles and documents upon which America rested such as the Constitution, The Declaration of Independence, Washington's "Farewell Address," and Lincoln's "Gettysburg Address." The result of this clash was that the majority of the American people temporarily followed a foreign policy approach, advocated by the imperialists, based on chauvinism, emotionalism and territorial greed.

THESIS COMMITTEE: Dr. Edwin H. Cates, Chairman; Dr. Charles W. Emery
DATE OF COMPLETION: July 1964

ACCOUNT OF WINNEBAGO INDIAN AFFAIRS AT LONG PRAIRIE, MINNESOTA TERRITORY: 1848-1855

by Edward J. Pluth

PROBLEM: To give an historical account of the affairs involving the Winnebago Indians during their residence at Long Prairie from 1848 to 1855.

PROCEDURE: A study of all sources relating to the Winnebago activities was made. This involved the use of the facilities of the Minnesota Historical Society, including the study of territorial newspapers of the period, various government documents, and manuscripts of persons involved with these Indians. These were studied thoroughly and the information obtained was arranged in topical-chronological order so that the whole picture of Winnebago affairs could be viewed accurately.

FINDINGS: There is much information on the Winnebago Indians during their stay at Long Prairie, but this must be gleaned from many sources. The Winnebagoes removed to Minnesota in 1848. Upon their arrival at the Long Prairie reservation, plans were put into operation to erect log houses for the Indians, to establish a school and to teach the Indians agriculture. Much controversy developed over the control of school operations, the final result being that the school was placed under the control of a Catholic mission society. Many problems faced the Indian agent and Superintendent of Indian Affairs (the governor of the territory). Among these were the Indians' roaming habits and desire to leave the reservation, problems with the Sioux and Chippewa, whiskey trade and Indian-settler relations. At no time was the entire tribe of Winnebagoes located at Long Prairie, for many remained in Wisconsin. In 1850 an attempt was made to remove these to Minnesota with some success. Neither this problem, nor any of the others, were solved completely and in 1855 the Winnebagoes were removed to southern Minnesota, near Blue Earth.

SUMMARY AND CONCLUSIONS: The presence of the Winnebagoes in the new territory of Minnesota aided in the development of the area, for it brought people into the territory to work or trade with the Indians and it brought much needed money into the territory which aided in the economic growth. The excellence of the crops grown at Long Prairie indicated the future prospects of that area as an agricultural center and this helped spur the settlement of the region.

The people of Minnesota did not have too high an opinion of the Winnebagoes and yet they wanted the money and trade these Indians brought, so, in a sense, the Indians were simply tolerated because of their economic value. Personal differences and ambitions among officials of the agency caused draw-

backs in the development and handling of Indian affairs but, in general, the administration of these affairs was as good as could be expected under the circumstances. The Winnebagoes' stay at Long Prairie thus provides an interesting, although little known, aspect of Minnesota history.

THESIS COMMITTEE: Dr. Calvin Gower, Chairman; Dr. Herbert Lohrman
DATE OF COMPLETION: August 1963

LIFE ON THE VERMILION RANGE BEFORE 1900

by Anthony C. Schulzetenberge

PROBLEM: The purpose of the study was to reconstruct the conditions on the Vermilion as they existed for the pre-1900 citizen. It was an attempt to set down for posterity some factual evidence to show that we owe a great amount of respect and admiration for the builders of the Vermilion Range, not necessarily because they endured greater hardship than people in other areas of settlement, but because of the type of society that developed from a beginning that was both humble and difficult.

PROCEDURE: Books that dealt with the history of the Vermilion Range were read for background material, and visits were made to the Minnesota Historical Society and the St. Louis County Historical Society in search of materials. Very little information that could not be found locally was discovered, so the next step was to search carefully the newspapers that were available. Once a good background had been established, interviews were conducted with people who lived during the period or with those who are known for their historical interest and have spent much time gathering local historical information. Examination of local historical collections served to fill in existing gaps, and the facts were brought together and incorporated into the paper.

FINDINGS: The first twenty years of the development of the Vermilion Range were really a period of transition from complete wilderness to a civilization that was firmly established. People of many nationalities and of all ways of life moved in rapidly, and their attention was soon directed toward self-improvement. Although working conditions remained poor, a fairly high standard of living had been developed by 1900. Life on the Vermilion, discounting the physical dangers, was really not so different from that of the early years of settlement in other parts of our country.

SUMMARY AND CONCLUSIONS: The following specific conclusions have been drawn: (1) the key to the development of the area was the construction of the railroad, (2) people from almost all faiths, races, and nationalities settled in homes that were typical of that era in American history, (3) housing was very limited, (4) there was little discrimination and a spirit of cooperation existed, (5) much emphasis was placed on self-development and community-development, (6) the physical, social, and religious needs were well fulfilled by good medical facilities, much leisure activity, and many churches, (7) lawlessness flourished during the early days when law enforcement was weak, (8) local government functioned well in providing for good utilities, transportation, and schools (with the exception of streets and law enforcement), (9) working conditions were bad and labor was dominated by capital, and (10) physical dangers made working conditions worse on the Vermilion than in many other areas of our country.

THESIS COMMITTEE: Dr. Calvin W. Gower, Chairman; Dr. Charles Emery
DATE OF COMPLETION: September 1963

A BIOGRAPHICAL SURVEY OF JOSE YVES LIMANTOUR, FINANCE MINISTER OF MEXICO 1893-1911

by Louis Joseph Senta

PROBLEM: Serving as Finance Minister of Mexico from 1893 to 1911, Jose Yves Limantour negotiated a series of financial maneuvers that provided Mexico with a phenomenal growth in economic development. Remarkable though his financial activities were, Limantour fell victim to the Mexican Revolution of 1910 and was forced to resign his post and retire into exile. It was the purpose of this survey to produce a sequence of important biographical facts and comments concerning the achievements of Limantour up to the time of his resignation.

PROCEDURE: The information for this biographical survey was obtained from articles and books by American writers who, in analyzing the life and work of Limantour, expressed their opinions as to the effect the Limantour policies had on the economic advance of Mexico. The following questions served as a guide to this investigation: (1) Were the financial policies of Limantour so great as to gain for him all the fame the press of his day gave to him? (2) Was it his personal aim to replace Porfirio Diaz as the absolute power in Mexico? (3) Did Limantour's actions have any influence in the downfall of the Diaz administration?

FINDINGS: Limantour served his country as Finance Minister for seventeen uninterrupted years, during which time Mexico rose from an economically struggling, near-bankrupt state to a nation financially solvent, economically productive, and politically quiet. By his policies he gave to Mexico a period of international prestige. But his financial program failed to rehabilitate the most important economic ailment of Mexico — the impoverished condition of his own people. Instead of promoting and encouraging loyalty to a worthy national state, the Limantour policies aided Diaz in demanding from the people servitude to a totalitarian state practically owned by foreigners. The consequence of this was revolution.

It was also the finding of this survey that the writers who analyzed the work of Limantour were of differing opinions as to his effectiveness in promoting the growth of Mexican economy. Writers of his day considered Limantour as a financial genius and the logical successor to Diaz. Later writers, however, gave evidence and opinions that his financial maneuvers were mostly give-away programs favoring his friends and foreign investors. As for his political aspirations, these later writers gave only reasons why Limantour could have never replaced Diaz as the head of the nation.

CONCLUSION: In conclusion, there seems to be two possible interpretations of the manner in which Limantour exercised his fame and his powers as Finance Minister of Mexico. In one interpretation one sees a man of sincere endeavor whose life was devoted to honest achievement according to his particular philosophy of government. In the other interpretation we see a man of vast egotism, whose life could be considered as one of conscious or unconscious hypocrisy and lying pretensions, determined only to gain benefits for himself and his friends. As a man of honest endeavor, Limantour worked his talents and aided in the development of a more progressive Mexico. As the man of egotism, he promoted the myths of his greatness to hide the blunders he made. His power was used with little permanent effect and so consequently his financial empire collapsed and the glory vanished.

THESIS COMMITTEE: Dr. Calvin W. Gower, Chairman; Dr. Edwin H. Cates
DATE OF COMPLETION: June 1964

INDUSTRIAL ARTS

THE DEVELOPMENT OF A COURSE OF STUDY IN ELECTRICITY FOR JUNIOR HIGH SCHOOL INDUSTRIAL ARTS

by James Gilbert Beck

PROBLEM: One of the main objectives of industrial arts is to provide the student with activities that promote the understanding of industry and its processes. The increased number of electrical products in our lives plus impetus lent by industry and military makes electricity and electronics a more important area. It has been the purpose of this project to develop a course of study for junior high electricity in industrial arts.

PROCEDURE: The procedure was first to determine the teaching units of the course. Then for each of the units the objectives were determined. After the objectives were determined, the following were developed for each unit: activities included in the unit; manipulative skills; new tools and equipment; teaching aids; related information; references; how the unit is to be taught; and evaluation. Finally there was preparation of the material to be included in the appendix.

FINDINGS: There seem to be many ways in which the teaching of electricity is approached. In looking through different courses of study it was found that there is a great variety in electrical courses. Text books in science for the junior high school student introduce a number of electrical terms. At the present time many new text books are being brought out specifically for electricity in industrial arts. There is a great deal of literature available from various manufacturers that can be used as an aid to the teacher and student. Free films of any value seem to be rather scarce. However, there are many rental films that would lend themselves to this course.

SUMMARY AND CONCLUSIONS: Electricity in the industrial arts shop is by no means a new area. Its development has been slow because of the lack of interest by the teacher. The traditional areas of woodworking and drawing have received most of the teacher's attention. With the rapid development of the electrical industry more emphasis will have to be placed on electricity to meet the major objective of industrial arts.

THESIS COMMITTEE: Dr. Raymond Larson, Chairman; Dr. Alexander McWilliams

DATE OF COMPLETION: August 1963

A COMPARATIVE STUDY OF UNDERGRADUATE INDUSTRIAL ARTS COURSE OFFERINGS IN MINNESOTA COLLEGES

by Richard L. Hemberger

PROBLEM: The purpose of this study is to compare undergraduate course offerings in industrial arts at St. Cloud State College with other colleges and universities in Minnesota for the purpose of developing a unified five year curriculum to be considered by the state colleges.

PROCEDURE: In order to determine what should be offered in industrial arts, three influences to industrial arts must be examined. First, the requirements of the State Department of Education in industrial arts were examined. Second, what new concepts are recommended by leaders in industrial arts teacher education, and thirdly, what are the expectations of industry concerning industrial arts.

The third portion of this paper is a comparison of the industrial arts course offerings in Minnesota colleges. These industrial arts offerings were taken from the most current catalogs published by each institution. The courses were tabulated according to subject area and a comparison made in each area. The courses were then analyzed according to the recommendations and requirements of the three influences to industrial arts.

FINDINGS: According to most industrial arts teacher educators there should be a unified curriculum in industrial arts. Most academicians agree that a five year program is needed to fully prepare a person for teaching. Exactly what the fifth year program should be is not completely settled. The fifth year could be specialization in more subject matter courses; an internship type of student teaching program and final thought is the first four years are spent in the liberal arts and the fifth year is devoted to professional education courses.

It was found that the college industrial arts departments had little similarity in their programs. It would seem that each institution has been teaching what it felt was necessary. There was little similarity within each area. In some areas the credit requirements varied from 4 quarter hours offered to 24 quarter hours required in an area. Some of the concepts and areas recommended were not even touched upon in some colleges.

SUMMARY AND CONCLUSIONS: It is recommended that a representative from each of the college industrial arts departments meet with teachers in the field and with administrators to discuss whether this dissimilarity is beneficial or detrimental to industrial arts. If this committee decides this dissimilarity is detrimental, steps could be taken for an adoption of a more unified curriculum in industrial arts.

There are two provisions for further study. The first is a survey to industry and industrial arts teacher educators of all the courses offered at the state colleges to determine whether these courses should be taught in an industrial arts undergraduate program. Second, a study could be made of all states that require a fifth year for certification to teach industrial arts. This would include what is required for certification and what course matter must be taken to be certified.

THESIS COMMITTEE: Dr. Raymond Larson, Chairman; Dr. Perry Rawland
DATE OF COMPLETION: July 1963

EVALUATION OF DRAWING PLATES BY STUDENT, PEER AND THE EXPERT

by Jerome Edward Latterell

PROBLEM: Widely divergent practices have characterized evaluation in industrial arts, yet two types of procedures have predominated; (1) testing for specific information, usually through a pencil-and-paper recall test; and (2) judgment by the teacher of the completed project or work that was accomplished, a procedure that is usually quite subjective, although in some instances it is based upon a weighted scale of qualities being checked. Neither procedure has seemed very satisfactory to many teachers, and even a combination of the two types leaves much to be desired.

PROCEDURE: Every effort was made to simplify the mechanical work needed to carry out this research into the potential of three-way evaluation involving the student, his peers and the expert, or teacher. It was made clear through frequent talks to each of the student subjects participating in the survey that neither his evaluation of his work, nor that of his peer, would determine the final numerical or alphabetical grade which would be the permanent record of his work. A coding system was developed by the researcher so that no personal bias would enter into the evaluation done by the peer groups. Clear and concise records were kept of each drawing judged and, perhaps most important of all, notes were made through careful observation of the reactions of the

student drawers to the type of evaluation their work was being subjected to. Other experts (see definition of expert) were enlisted in the survey work, both as active participants in the evaluation and as observers to record the shifts in attitude, or lack of such shifts, in both participating students and non-participating students.

FINDINGS: Much of the detailed charting of variations of evaluation among the three groups was very necessary to the carrying out of the experiment by the researcher, but, in a practical application of the student-peer-expert method of evaluation, some of it could safely be omitted. The main value of this additional paper work in which a folder was kept for each student and then separate work sheets to record the differences in opinion among the graders, was to convince the students that the evaluation was serious and strictly impersonal. It was found that this type of evaluation brought about slow but profound changes in attitude in the student's view of the teacher and himself. This change at first was almost too imperceptible to record. But, as the experiment went on much of the subtleness vanished and a new relationship between teacher and student became very evident.

Most of the inherent hostility toward teacher authority vanished. Good students tried to become better; average students began to try to impress, not only the teacher, but their peers, and poor students succeeded in becoming better.

SUMMARY AND CONCLUSIONS: In the minds of the researcher and the three colleagues involved in the experiment, it was an unqualified success. The three-part meshing of the new type of evaluation erased most of the subconscious urge of the self-evaluator to place a higher value on his work for prestige sake. But, it still gave him the pleasure of knowing that his idea of his own work was being considered. It lent the peer the moral strength of knowing that he too had become a part of a serious team and that his opinion was a valuable one. It was but a short step from this summation of the year's work to the conclusion that such an example of successful evaluation should not be discarded, but should be pursued in further classroom work, not with the idea of proving a theory, but in practical application for the betterment of student-teacher relations and for overall educational improvement.

THESIS COMMITTEE: Dr. Ray Larson, Chairman; Dr. Roland Vandell
DATE OF COMPLETION: July 1963

AN INVESTIGATION TO DETERMINE CONTENT FOR A JUNIOR HIGH SCHOOL ELECTRICITY AND ELECTRONICS COURSE OUTLINE FOR THE ST. PAUL PUBLIC SCHOOLS

by Marlyn Roy Tramm

PROBLEM: It was the purpose of this investigation: (1) to determine course content and (2) to provide teaching methods and suggestions for a twelve week course in electricity and electronics for junior high school students of the St. Paul Public Schools.

PROCEDURE: Reviewing current literature and conferring with people presently engaged in electricity and electronics seemed to be the most effective manner of securing information in the fast growing field of electricity and electronics.

Personal interviews and telephone interviews were conducted with the following: (1) ten junior high school electricity and electronics instructors located in the twin city suburban area, (2) two directors of private electronics trade schools located in Minneapolis, Minnesota, (3) one chairman of the electronics department of the St. Paul Area Vocational School, (4) one director of training programs for Bell Telephone Company of Minnesota, Northern Division, (5) one member of the electrical industry board of St. Paul, Minnesota, (6) one employment director of Bell Telephone Company for Minnesota, North-

ern Division, (7) one director in charge of examinations for the State Board of Electricity for the State of Minnesota and (8) one retired electrical superintendent who had been a night school instructor and a former inspector for the State Board of electricity for the State of Minnesota.

Current literature was reviewed from the following: (1) nine current high school electricity and electronics textbooks, (2) one guide to teaching electricity and electronics for industrial arts in the Minneapolis Public Schools, (3) one shop manual for electrical work for grade eight for the Duluth, Minnesota Public Schools, (4) one independent paper concerning a guide book for teaching electricity at Phillips Junior High School, Minneapolis, Minnesota, (5) one suggested teaching guide for junior high school electricity and electronics for the Roseville Public Schools, Roseville, Minnesota and (6) one industrial arts curriculum guide for the State of Minnesota.

Conclusions were then written from the findings of the investigation. After careful analyzing of the findings and relating them to other factors such as principles of learning, a course outline for electricity and electronics for junior high school students at the St. Paul Public Schools was made.

FINDINGS: Many teaching suggestions and activities were found as a result of the investigation. The interviewees had many worthwhile and relevant suggestions. However, the review of literature contributed more in determining content for the course outline.

SUMMARY AND CONCLUSION: The most prevalent teaching suggestions and activities throughout the investigation are listed as follows:

1. The circuit board technique of teaching was mentioned more than any other method throughout the investigation.

2. All but one of the interviewed junior high school teachers used a textbook.

3. The lecture and demonstration method was the most frequent method used in presenting new material.

4. The investigation revealed no definite pattern as to the amount of time students spent in the classroom and shop.

5. It was mentioned several times in the investigation that precut projects should be used to minimize the time spent in areas not dealing with electricity.

6. The junior high school teachers that were interviewed stated that the motor kit was the most widely used project.

7. Experiments were widely advocated to be used as student activity.

8. The junior high school electricity and electronic course should be made as interesting, simple, and practical as possible.

9. Junior high school students should have the opportunity to work with 110 volt (house current).

10. The investigation showed that safety was an important aspect of the junior high school electrical program.

11. Electrical mathematics should be an important aspect of the junior high school electricity and electronic course.

THESIS COMMITTEE: Dr. Ray Larson, Chairman; Dr. Harry Goehring

DATE OF COMPLETION: June 1964

MATHEMATICS

INSERVICE PROGRAM FOR MODERN MATHEMATICS

by Daniel Meredith Jensen

PROBLEM: It was the purpose of this study to (1) make a historical research on some of the curriculum changes in arithmetic during the past decade; and (2) to develop an inservice program based on Scott, Foresman mathematics materials for elementary teachers at the Cambridge Public Schools in Cambridge,

Minnesota. The inservice program was conducted during the school year, 1962-63.

PROCEDURE: The majority of the material for the historical research on the development of arithmetic and evidence of the need for an inservice course was found in periodicals.

Development of the inservice program was accomplished with guidance given to the author by Dr. Anderson, the writer's graduate advisor, Mr. Harland E. Johnson, elementary principal of Cambridge Public Schools, teachers enrolled in the inservice program, Scott, Foresman and Company, and the Minnesota State Department of Education.

Eight of the meetings in the inservice program were held at bi-weekly intervals in the fall. Subsequent meetings were held during the spring of the same school year.

Two meetings for parents were conducted for the purpose of informing them on the modern approach to mathematics.

The instructor and the participants in the program formulated a final evaluation of the entire inservice course.

FINDINGS: On the basis of the historical research on this problem, it was quite evident that an inservice program for elementary teachers is of prime importance since the majority of these teachers have only a very limited background in the field of mathematics.

The inservice program for elementary teachers at Cambridge Public Schools was well received.

Inservice training education programs extend throughout all fifty states.

Some form of inservice education is being provided for professional workers in most school systems.

If the program is to be successful, the instructor must create a favorable atmosphere conducive to a working relationship with all concerned, and the topics discussed must be of vital interest to the participating teachers.

SUMMARY AND CONCLUSIONS: The level of preparation in mathematics of the elementary teachers should be considerably strengthened. This can best be done by preservice education; however, for those people already in the teaching profession, an inservice course would be most beneficial.

A program for the preparation of teachers of mathematics can not be completed in one week, one month, or even one year as it should be an ever expanding and continuous program.

According to the author and the participating educators, an inservice course on modern mathematics was of prime importance and extremely valuable to the situation at the Cambridge Public Schools and surrounding rural districts.

THESIS COMMITTEE: Dr. Rowland Anderson, Chairman; Dr. Roland Vandell
DATE OF COMPLETION: August 1963

A COMPARATIVE ANALYSIS OF TWO DIFFERING MODERN TOPIC UNITS, TO DETERMINE GROWTH IN UNDERSTANDING THE STRUCTURE OF THE HINDU-ARABIC NUMERATION SYSTEM

by Clare Martin Jr.

PROBLEM: The General Mathematics class is made up of (1) the unmotivated student, (2) the slow learner, and (3) the mathematically retarded student. Mathematical material to meet their needs is in a transitional state at the present time.

It was the purpose of this study to analyze relative growth between two of these classes in the understanding of the Hindu-Arabic Numeration System. This was accomplished by comparing the effectiveness of two differing units each designed towards the same goal, but using different approaches. The

superior material would then be used as a unit in the course of study for the above mentioned students.

PROCEDURE: Existing textbooks dealing with desired contents were surveyed as a preliminary step, with the most pertinent parts noted. These ideas were incorporated into (1) a unit study on the structure of various numeration systems, and (2) a unit study concerned only with the structure of the Hindu-Arabic Numeration System. The comparative study was then made between two General Mathematics classes, each presented with one of these modern topic units. A "pretest", written by this writer was given both before and after the four week presentation of each unit, and the results compared and analyzed to measure relative educational growth between the two experimental classes.

FINDINGS: A comparative analysis of the results of the two administrations of the "pretest" showed no indication of marked growth or retardation attributable to one class or the other. There was a general shift upward, probably indicating individual growth, but no definite trends were established.

It was noted that there was no marked pattern related to the individual's progress that could be attributed to either the slow learner or the undermotivated student.

SUMMARY AND CONCLUSIONS: Since there were no conclusive results which could be isolated from the experiment the general conclusion was that neither unit was superior.

But, subjective observations must also be described. The general atmosphere was pleasant and stimulating in the class (Class A) which studied the various numeration systems. Since this was new material the stigma of remedial work was removed. The class (Class B) which studied the Hindu-Arabic Numeration System was very difficult to stimulate with repetitious material.

An integration of the two units is the next suggestion when compiling a new unit for future use. Unit A should be the predominate part of the suggested integration of the two units.

The present business world requires many skills and more knowledge than was necessary a decade ago. The specific requirements of the future are unpredictable. Thus, a study based on various numeration systems rather than just one numeration system seems to be justified.

THESIS COMMITTEE: Dr. Rowland Anderson, Chairman; Mr. Alyn Dull

DATE OF COMPLETION: July 1963

A COMPARISON BETWEEN TEACHING A UNIT ON RATIO AND PER CENT BY THE CONVENTIONAL METHOD AND TEACHING THE SAME MATERIAL BY COMBINING PROGRAMED MATERIALS AND THE CONVENTIONAL METHOD

by Wayne Howard Porter

PROBLEM: Programed self-instruction has been receiving both wide acclaim and serious opposition in education throughout the United States during the last few years. It was the purpose of this study to (1) write a unit of programed materials on ratio and per cent, and (2) to use the programed material intermittently with conventional methods in comparison to teaching the same unit using only conventional methods.

PROCEDURE: Matched pairs of seventh grade students were selected as control and experimental classes for the study. Mates were selected on the basis of ability and achievement measured by the Otis I. Q. and the Iowa Basic Skills tests respectively.

During the first seven months of the school year both classes were taught the same materials using the conventional method. Tests were administered during this time to determine possible advantages that one class might gain

over the other. These results were also examined to determine any superiority a student might gain over his mate.

The experimental unit began in March and lasted for six weeks. The control class was taught in the conventional manner. The experimental class was taught using a combination of programmed materials and the conventional method.

These tests were administered during the unit: (1) a pretest, (2) an intermediate test, (3) a final test, and (4) a test three weeks later. The results were examined to determine whether or not the advantages registered in the pre-project period continued as a result of the experimental unit. The mean was used to determine superiority by classes. The t-ratio was used to determine whether or not the differences obtained were significant.

The scores of the matched pairs for both pre-project tests and project tests were examined carefully to determine whether or not any established patterns of superiority were reversed as a result of the use of the experimental materials.

FINDINGS: The control class scored consistently higher during the pre-project period and the trend continued during the experimental unit. The experimental class did, however, register a slight advantage in gains from final test to the test given three weeks later. The results obtained indicated no significant differences measured by the t-ratio.

The analysis of the matched pairs showed that of eleven gains registered by the experimental mates, ten were made in the upper three-fifths of the ability range. The results also showed that of fifteen gains by the control mates, nine were made in the lower two-fifths of the ability range.

SUMMARY AND CONCLUSIONS: The administration of the experiment provided that the students using the programmed self-instruction book were involved in these three classroom conditions: (1) Use of the programmed book, (2) teacher-pupil discussion periods, and (3) use of enrichment materials for those who finished early. It is felt that these changing conditions influenced a noticeable increase in interest shown by students who possess extra interest and extra ability in math. Although the analysis of the group statistics revealed no significant differences, the results of this project seem to indicate that these same students of above average ability derived more benefit from using programmed materials than did students of below average ability.

THESIS COMMITTEE: Dr. Rowland C. Anderson, Chairman; Mr. Alyn Dull
DATE OF COMPLETION: December 1963

MUSIC

THE VALUE OF SELECTED METHODS IN PREDICTING THE MUSICAL PERFORMANCE SUCCESS OF A HIGH SCHOOL BAND MEMBER

by Robert Francis Harris

PROBLEM: The problem as treated in this study is: (1) Is it possible to predict the musical success of a student who wishes to enter the school band program? (2) What information is necessary to produce the methods upon which this prediction can be based?

In less than fifty years since the first school band appeared, the instrumental music program has grown to become a regular part of the high school curriculum. Because the instrumental program is so recent, there are many problems that still remain unsolved. It is generally agreed by music educators that one of the greatest problems is finding the best method or methods to use in selecting students for the beginners program. In the school systems where the instrumental music program is successful and popular with the student body, you

will generally find a sizable portion of the school enrollment wanting to take part in the program. Among these students there usually are an appreciable number who are decidedly unmusical. Factors such as lack of facilities, available instruments, instructors' time, and scheduling problems, often make it necessary to limit enrollment in the instrumental classes. When it is necessary to limit enrollment it becomes more important to make every effort to attempt to predict the success of a potential band member.

PROCEDURE: Two types of procedure were used in processing the data in this study. The first was a coefficient of correlation. This phase of the study determined whether a relationship existed between performance ability and I.Q., and between performance ability and music aptitude. If a relationship existed it might be possible, to some degree, to predict future performance ability through the I.Q. scores and music aptitude scores. The other method used was the casual comparative. This phase of the study was based on a study of personality traits, personal habits, and the home atmosphere of the five highest ability and five lowest ability students in the high school band. The purpose of this investigation was to determine whether or not a relationship existed between these factors and the performance ability. If a strong relationship was found to exist, prediction might be possible.

FINDINGS: It was found through the coefficient of correlation method that more than a chance relationship did exist between performance ability and I.Q., and performance ability and aptitude. The relationship between performance ability and aptitude was somewhat higher than that between performance ability and I.Q. The casual comparative phase of the study did not show a significant relationship between personality traits, personal habits, home atmosphere, and performance ability.

SUMMARY AND CONCLUSIONS: In summary, even though more than a chance relationship did exist between performance ability and aptitude, and performance ability and I.Q., it would be dangerous to try to predict success on an individual basis. The relationship is high enough to be able to predict, with some degree of accuracy, the performance ability of a group of students. A trend did not appear to exist in the scores on personality traits and personal habits. In the home atmosphere phase of the study there was an indication that in many cases the better musicians came from what may be considered the more normal and stable homes.

In final conclusion, it would be dangerous to predict the musical performance success of individuals based on the findings of this study. The author feels, however, that certain trends do seem to exist which may help, to some degree, the music educator in selecting his students for the beginning band program.

THESIS COMMITTEE: Dr. Roger Barrett, Chairman; Dr. Harold Krueger
DATE OF COMPLETION: December 1964

THE STUDY OF A PROGRAMED LEARNING UNIT ON RHYTHM FOR GRADE FIVE

by Donn Mattson

PROBLEM: It was the purpose of this study to develop, present and evaluate a programed learning unit on rhythm designed for fifth grade.

PROCEDURE: The first step in the development of the rhythm program was to establish a definite set of objectives. When the rhythm program was completed, it was presented to fifty-two fifth graders for purposes of validation.

The experiment was performed in 1964-65 with two classes from grade five, West Side Grade School, Marshall, Minnesota. Students were random grouped for the experiment and considered nearly equal. The experimental group was given a pre-test, the rhythm program, and a post-test. The control group was given a pre-test, taught rhythm in the conventional method, and

given a post-test. If the mean score of each group were significantly higher on the post-test, it would indicate that each group had improved. If the comparative improvement of the experimental group were higher than that of the control group, it would indicate that the addition of a programed learning unit on rhythm was a factor in this improvement. A "t" test was incorporated to check for a statistically significant difference between the two groups.

FINDINGS: In the control group, "t" must be greater than 2.771 to indicate a significant difference between the two mean scores. The null hypothesis was rejected because the result of "t" was 4.426. The null hypothesis was also rejected in the experimental group since "t" equalled 4.427.

Because of the similarity of "t" in both groups, a test was administered to establish the presence of any significant difference between the mean scores of the two groups on the final test. The null hypothesis was retained in this case since "t" must exceed 2.056 to show significant difference. The result of "t" was .33874.

SUMMARY AND CONCLUSIONS: A rhythm program was constructed to fulfill a set of carefully planned objectives. It was used as a partial substitute for the conventional method of teaching rhythm. The program was presented to a group of fifty-two fifth graders as a means of validation. This was not a comparative study but a means of checking the weak areas of the program. When weak areas were found, corrective steps were taken. The experiment was performed in 1964-65 with two classes from grade five, West Side Grade School, Marshall, Minnesota.

It has been noted that both the experimental group and the control group improved significantly from pre-test to post-test. No discernible difference, however, was indicated in the final mean score of the two groups. This finding indicates that when a professional musician teaches a concentrated course on rhythm, the conventional method of teaching proves to be as satisfactory as the programed learning method. It also indicates that the rhythm program presented proved to be as satisfactory as the conventional method of teaching.

THESIS COMMITTEE: Mr. Harvey Waugh, Chairman; Dr. Roger Barrett
DATE OF COMPLETION: May 1965

PHYSICAL EDUCATION

AN INVESTIGATION OF THE NUTRITIONAL PRACTICES OF VARSITY FOOTBALL PLAYERS DURING THE SEASON AS COMPARED TO OTHER MALE STUDENTS ATTENDING TECHNICAL HIGH SCHOOL

by William Arthur Frantti

PROBLEM: The problem was to investigate the nutritional practices of varsity football players during the football season and compare them with the nutritional practices of other male students attending Technical High School, St. Cloud, Minnesota.

PROCEDURE: The varsity football squad of 1962 was one of the groups in the study and the other group was other male students attending Technical High School. Data were gathered from each group by using a daily food check list and these data were scored according to a diet score card designed by nutrition specialists. Comparisons between the two groups were drawn on the basis of the scores in the different diet areas, diet scores, and the number of in-between snacks.

FINDINGS: The scores in the different areas of the diet were, without exception, in favor of the varsity football group. The difference in mean scores

of the total diet was in favor of the varsity football group and was significant at the .01 level of confidence. There was no relationship between the diet scores of individuals in the study and the number of in-between meal snacks consumed.

SUMMARY AND CONCLUSIONS: Participation in varsity football at Technical High School does make a boy aware of proper nutritional practices and is a motivating factor in selecting a more balanced diet.

THESIS COMMITTEE: Dr. George Serdula, Chairman; Dr. John Kasper
DATE OF COMPLETION: August 1963

A TEN-YEAR ANALYSIS OF SCORING AND TEAM SUCCESS OF SAINT CLOUD STATE COLLEGE VARSITY BASKETBALL

by Gerald E. Thayer

PROBLEM: This investigation was done to determine whether over a ten-year period of varsity basketball at Saint Cloud State College there was any significant correlation between: (1) point spread and winning percentage; (2) the number of individual double-figure scorers and winning percentage; and (3) the number of double-figure scorers and point spread.

PROCEDURE: The scoring records of the Saint Cloud State College varsity basketball teams from 1953 to 1962 were the source of data for this study. Spearman's rank-difference correlation was the statistical method used in the treatment of the scoring data. The correlation coefficients were obtained among point spread, double-figure scorers, and winning percentage.

SUMMARY AND CONCLUSIONS: In order to determine the scoring relationships it was necessary to list the scores of each game for each basketball season as well as list the individual scoring of each of the five starting positions for the games in the years considered in this study. From these statistics, the winning percentages, the season's point spread, and the number of starting positions scoring in double figures were determined.

The following conclusions have been based upon the results and findings of this study.

1. There was a statistically significant correlation between point spread favoring the offense and winning percentage at the .01 level of confidence.

2. No statistically significant relationship was found between the number of double-figure scorers and winning percentage.

3. No statistically significant relationship was found between the number of double-figure scorers and point spread.

THESIS COMMITTEE: Dr. A. F. Brainard, Chairman; Dr. John Kasper
DATE OF COMPLETION: July 1963

SCIENCE

WING DIFFERENTIATION FROM THE PREPUPAL INSTAR TO THE ADULT CECROPIA

by Donald J. Connors

PROBLEM: The problem was to follow the development of the wings of a cecropia moth. It included finding in what larval instar the wing buds first

became noticeable, the changes in the appearance of the wings throughout the larval instars, and the emergence of the wings during the prepupal instar.

PROCEDURE: Larvae of the cecropia and polyphemus in various instars were collected. The polyphemus larvae were dissected during the various instars to determine at what instar the wing buds were present and the differences in size of the wing buds in each of these instars. Other polyphemus larvae were prepared for microsections to determine the growth patterns of the wing buds.

The cecropia larvae were allowed to spin their cocoons. One larva was dissected on the first day of spinning and another one on the second day of spinning. From the second day of spinning to the tenth day after, one cecropia was dissected every fifteen hours. This procedure was done to determine how the wing buds emerged during the prepupal instar.

FINDINGS: From the dissection of the polyphemus larvae the wing buds were first noticeable during the third larval instar. However in examining the cross section of the various larval instars under a microscope, the wing buds were noticeable during the second larval instar.

The size of the wing buds did not seem to vary from the third larval instar to the prepupal instar. The cross section showed that the wing buds were invaginated epidermal pouches. These pouches again invaginated at their proximal ends to form the wing process. These wing buds consisted of three things: (1) the epidermal thread which connected each bud to the outer epidermis, (2) the outer capsule of the bud, and (3) the wing process.

In following the emergence of the wing buds during the prepupal instar, it was noticed that the wing buds flexed upwards until their distal ends came in contact with the epidermal thread. The buds then proceeded along the thread until they emerged through an opening which could have been a remnant of the first epidermal invagination that happened during the second larval instar. As the buds emerged, they followed spaces that appeared between the outer cuticula and the epidermis, greatly enlarging as they proceeded posteriolaterally.

SUMMARY AND CONCLUSIONS: A review of the growth and differentiation of the wing buds was observed. It was noticed that various cells in the epidermis of the thoracic region divided, invaginated and differentiated into a wing during the life of the larva. As the pupal phase approached, these wing buds emerged from the body to become an integral part of the animal.

THESIS COMMITTEE: Dr. Hugh Barker, Chairman; Dr. Merle Michaelson
DATE OF COMPLETION: August 1963

THE STATUS OF DUTCH ELM DISEASE IN MINNESOTA

by Allen S. Heagle

PROBLEM: The Dutch elm disease was first observed in the United States in 1930. Since then the disease has spread rapidly over the eastern half of the United States and is now a serious problem in Wisconsin, Illinois, Indiana, Michigan, and Iowa. In Minnesota, the first case of the disease was reported in 1961. The smaller European bark beetle, *Scolytus multistriatus* (Marsh), the principal vector of the disease has been reported in the southeastern portion of Minnesota. The native elm bark beetle, *Hylurgopinus rufipes* Eichh., is a minor vector which occurs over most of Minnesota. American elm and other species are very susceptible to the Dutch elm disease pathogen, *Ceratocystis ulmi* (Buisson) C. Moreau. Effective means of controlling the disease once the pathogen threatens an area is dependent on knowledge of distribution of the disease, the pathogen, and the vectors.

It was the purpose of this study to determine the distribution of the Dutch elm disease, the pathogen, and the principal insect vector in Minnesota.

METHODS AND PROCEDURES: A survey of the communities in the southern part of Minnesota was made to determine the incidence of the disease and of

the smaller European elm bark beetle. Sampling and culturing of smaller European bark disease galleries was done to determine the locations where the Dutch elm disease pathogen is present. The literature was surveyed to determine the establishment and spread of the disease in the United States and to determine the environmental requirements of the pathogen. The use of a questionnaire sent to 45 mayors in southern Minnesota was employed to determine community programs for controlling the disease.

SUMMARY: Once established in an elm, the spores of *C. ulmi* pass readily throughout the water-conducting vessels reproducing themselves by budding in a yeast-like manner. The fungus releases toxins which stimulate the tree to produce gums and tyloses which plug the vessels. Once infected, a tree usually dies within a few months. The fungus also grows as a saprophyte in the egg galleries, larval tunnels, and pupal chambers of *S. multistriatus* and *H. rufipes*. If the fungus is present, the disease may be transmitted by either species to healthy elms during various beetle activities which score the sap stream. Healthy elms may also become infected when a root graft exists with a diseased elm. The period of greatest elm susceptibility to infection occurs from May 10 to July 26, when spring sapwood is produced and translocation is at a maximum. Infections before April 25 or after September 5 usually result in minimum vascular invasion which remains latent until rapid growth and translocation are resumed. Maximum wilt symptoms are produced when the average temperatures are between 26 to 29°C. Temperatures over 32 or under 12°C are generally inhibitory to fungus development.

The smaller European elm bark beetle was found in 23 communities in 13 counties in Minnesota. This represents an increase of 21 communities and 11 counties over previous reports. The increased incidence is due probably to a combination of beetle migration and increased survey during 1962. *S. multistriatus* now has been located in most counties from the St. Paul-Minneapolis area south and eastward to the Wisconsin and Iowa borders.

The severe winter temperature in Minnesota is probably the greatest single limiting factor to beetle survival. In spite of this and other limiting factors, the smaller European elm bark beetle survives and spreads in increasing numbers within the borders of Minnesota.

During the fall of 1962, samples from smaller European elm bark beetle galleries were collected from Austin, Chatfield, Mankato, Preston, Winona, and two locations in St. Paul. Attempts to isolate and culture *C. ulmi* from these galleries were unsuccessful. It is possible that no fungus was present or that incidence of the fungus was very slight.

There were 101 communities in Minnesota surveyed for Dutch elm disease in 1962. In most communities surveyed no characteristic wilt symptoms or dark stain were seen and no samples were taken for laboratory diagnosis. A total of five cases of the disease was reported during 1962, all from Monticello.

Survey during 1963 revealed a total of 43 cases of the disease in Minnesota. Monticello had a sharp increase with 31 new cases, St. Paul had 7, Minneapolis had 4, and South St. Paul had 1. No survey was made in rural areas or in many small communities in the southern part of the state.

The primary Dutch elm disease control measure is removal of beetle breeding sites. Most Minnesota communities completely lack programs which utilize this simple and effective means of controlling the disease.

THESIS COMMITTEE: Dr. Merle E. Michaelson, Chairman; Dr. Hugh Barker
DATE OF COMPLETION: November 1963

SCIENCE SUBJECTS IN CATHOLIC ELEMENTARY SCHOOLS, ST. CLOUD, MINNESOTA

by William Lorimer III

PROBLEM: It was the purpose of this study to examine the science curricula and teaching in the parochial elementary schools in the Saint Cloud, Minnesota, area, in order to evaluate the program so that adequate coordination could be achieved within the system and with Cathedral High School in Saint Cloud.

PROCEDURE: Information was obtained from answers of 158 teachers in these schools, covering curriculum subjects taught by grade, time devoted to science teaching, textbooks used, adequacy of materials and equipment, science teaching background of the teachers, their interest in further self-development along science lines, major fields of academic interest, amount of coordination that was effected for science teaching within each school, and the means used to test children periodically for advancement in science achievement. Interviews of selected teachers from eleven of the fifteen schools covered by the survey were made to determine reasons for wide divergence in science teaching programs in the various schools, which was uncovered by answers to the questionnaire, and to determine their attitudes in general toward a coordinated science curriculum, re-training of teachers in science, use of departmental method of teaching science.

A special interview was made with Dr. J. Hervey Shutts, Science Coordinator for the Minneapolis Public Schools, to determine the manner in which his coordinated program had been effected, and the success he had had with it.

Special inspections of the facilities, equipment and materials for science teaching was made by the writer at each of the fifteen schools in this survey.

FINDINGS: The general findings developed by this study were that (1) there was a need for the establishment of a well-coordinated system and curriculum for the teaching of science in the subject school system; (2) teacher education in science was poor; (3) retraining of these teachers was feasible within the capabilities of the Catholic Diocese of Saint Cloud; (4) the science curriculum was completely uncoordinated both intra-school and inter-school, except that a single up-to-date series of textbooks had been introduced into the schools; and (5) except in one school, there was a general lack of adequate equipment and materials.

SUMMARY AND CONCLUSIONS: 1. Teachers in elementary schools in general needed science background consisting of approximately twelve semester hours in college physics, chemistry, biology, geology and astronomy.

2. An overall, coordinated science program was needed in the school system surveyed.

3. Teachers in these schools generally were untrained in science to teach it properly in their schools.

4. Two-thirds of the teachers now want to take a course or courses in science to improve their backgrounds.

5. Time devoted to science averaged between fifteen and ten minutes daily, instead of a daily minimum of forty minutes.

6. Teacher retraining could be done through workshop, in-service courses, with some relief coming from departmentalization.

7. College requirements in science courses for elementary school teaching certificates were weak.

8. Content of curriculum for science was different in every school, and uncoordinated in same grades within most of the schools.

9. Equipment and materials for science teaching were non-existent in most schools, and adequate in only one school.

10. The metric system was not taught in any school, even though the understanding and use of it is necessary for science measurements in biology, chemistry and physics.

11. The testing system in science to test progress through the grades was either completely ineffective or non-existent in the school.

THESIS COMMITTEE: Dr. Harold Hopkins, Chairman; Dr. Paul Ingwell
DATE OF COMPLETION: July 1963

A STUDY OF THE EFFECTS OF IONIZING RADIATION UPON THE CENTRAL NERVOUS SYSTEM BY ELECTROCARDIOGRAM INTERPRETATION

by Ralph Markus

PROBLEM: It was the purpose of this study to determine the effect of varying amounts of radiation of the central nervous system of guinea-pigs on their heart action. The principle method of analysis is the interpretation of electrocardiograms taken before exposure and at various but predetermined intervals after exposure.

PROCEDURE: To condition the animals to the experimental environment, they were housed in separate wire cages and all fed the same food five days prior to experimentation. To prepare the animals for the electrocardiograms, they were anesthetized with ether. The effect of the ether lasted from fifty seconds to five minutes, the time interval usually necessary to obtain satisfactory electrocardiograms. To anesthetize the animals for radiation exposure, which required approximately one hour total time for all animals, the drug nembatal was used.

Animals numbered five and six were the control guinea-pigs. Animals numbered one, two and four were individually exposed to ten roentgens X-ray radiation and animals three, seven, eight and nine were exposed to two hundred roentgens.

Each experimental animal was given one exposure of radiation. The radiation was directed at the central nervous system of each animal.

FINDINGS: An examination of the tables (Appendix of Thesis) indicates that variations between adjacent QRS intervals large enough to signify arrhythmia were found only in two animals, number one and number four. These animals were both exposed to identical amounts of radiation; ten roentgens each.

SUMMARY AND CONCLUSION: An arrhythmia was produced in guinea-pigs even when small doses of X-ray radiation as low as ten roentgens were used to radiate the central nervous system.

THESIS COMMITTEE: Dr. Arthur Nelson, Chairman; Dr. Harry Goehring
DATE OF COMPLETION: July 1963

A STUDY OF THE WINTER BEDDING COVER OF THE WHITE-TAILED DEER IN DECIDUOUS FOREST AREAS

by Aaron Nathan Moen

PROBLEM: The purpose of this study was to determine the density of the cover in the bedding areas of the white-tailed deer in deciduous forest areas, and to subject four different methods of cover density evaluation to field trials for the purpose of determining the most efficient method.

PROCEDURE: The field work was conducted in three separate deciduous stands in the southwest corner of Douglas County, in west central Minnesota. The cover density in each bedding area was measured by four different methods. A cover density board, consisting of a board six feet long and four inches wide, was used for three of the methods. The board was painted black and white, alternating the colors at one foot intervals. Numbers from one through six were painted in the intervals on one side, with the lowest value at the bottom. Placed at distances of 37 and 59 feet from the beds, the total of the numbers not obstructed by cover in the northwest, northeast, southeast, and southwest directions was used as a cover density value.

The other side of the board was painted with 24 circles, each four inches in diameter. The number of circles visible was used as a cover density value.

The board was placed in the same directions and at the same distances from the beds as for the previous method. Two measurements were taken, one with the board in a vertical position and another with the board level with and two feet from the ground.

The fourth method involved the counting of stems visible through a slot in a card held at arm's length and eye level, with measures made in the northwest, north, northeast, east, southeast, south, southwest, and west directions.

FINDINGS: Heavier cover was measured in the southeast direction from the beds for all of the methods except the horizontal count method, which indicated a greater amount of cover in the northwest direction. The deer tended to bed in the more climax areas with little understory, and the beds located near the thickets were most often found on the northwest side of the thickets. Sixty-five per cent of the beds were found at or near the tops of the hills. More beds were found on the north exposure than on any other.

SUMMARY: The upper portions of the hills in relatively open woods were selected most often, indicating that the deer in these deciduous stands in an agricultural area of Minnesota were selecting bedding sites which afforded good visibility rather than heavy cover for protection from the elements.

Of the four methods used, the counting of the stems visible through the slot in the card was by far the most efficient to use in the field.

THESIS COMMITTEE: Dr. Max Partch, Chairman; Dr. Harry Goehring

DATE OF COMPLETION: August 1963

SOCIAL SCIENCE

AN ANALYSIS OF CURRICULUM REQUIREMENTS FOR A MASTER'S DEGREE IN PREPARATION FOR SCHOOL SOCIAL WORK

by John G. Gause

PROBLEM: The purpose of this study is to analyze the curriculum requirements of the institutions offering a master's degree in Social Work (in preparation for school social work) and the certification requirements of the state departments of education for school social workers; to determine, if possible, the need for course work in the field of education, i.e., course work in methods, curriculum, organization or administration of the schools, for those persons pursuing the study of school social work.

PROCEDURE: A questionnaire was sent to all graduate schools of social work, accredited by the Council on Social Work Education, to obtain information pertaining to curriculum requirements and type of training offered by the institutions. A letter of inquiry was sent to each of the fifty states to determine the state requirements for certification of school social workers. Personal interviews were conducted with four persons who work in the field of school social work to obtain opinions with regard to class work preparation for their positions. This information was compiled and from this total overview conclusions were drawn.

FINDINGS: Thirty-seven states replied to the letter of inquiry. Twenty of these did not certify school social workers. Nine states which do require certification of the school social worker, require a valid teacher's certificate as well as training in the field of social work. Four states require only a master's degree in social work. One state requires a master's degree in social work and credits in the field of education. Two states list their requirements so vaguely that they are not useful in the evaluation of the study.

Sixty institutions are accredited by the Council on Social Work Education. Eighteen of these institutions do not offer field placement in the school setting. Twenty-one institutions offer field placement in the school setting but do not require classwork in the field of education. Fourteen institutions require course work in the field of education for the master's degree in social work for the school setting. There were not any particular courses in the field of education required by all of the fourteen institutions.

The four persons interviewed were equally divided on the question of required course work in the field of education for school social workers.

SUMMARY AND CONCLUSIONS: The training and use of school social workers is increasing. The requirements for certification of the school social worker show very little uniformity; however, the study seems to indicate a general trend away from training in the field of education. The writer concludes that an understanding of the school setting is imperative for the success of the school social work program based on the role of the school social worker. Therefore, the writer concludes that a minimum of nine quarter hours of course work in the field of education should be required by the states for certification of school social workers.

THESIS COMMITTEE: Dr. Herbert Lohrman, Chairman; Dr. Paul Cairns
DATE OF COMPLETION: August 1963

A HISTORICAL STUDY OF THE DEVELOPMENT OF THE COMMITTEE ON POLITICAL EDUCATION OF THE AMERICAN FEDERATION OF LABOR-CONGRESS OF INDUSTRIAL ORGANIZATIONS AND AN ASSESSMENT OF ITS POLITICAL EFFECTIVENESS

by Arthur F. Grachek

PROBLEM: It was the purpose of this study to trace the historical development of the American Federation of Labor-Congress of Industrial Organizations' Committee on Political Education and to assess its effectiveness as an interest group in the United States political sphere.

PROCEDURE: In order to better understand the present political philosophy of the AFL-CIO, it was necessary to study the political activity of labor since the early nineteenth century. An effort was made to trace the history of the early development of labor union political activity and its evolution into the non-partisan philosophy. The various attempts at independent, partisan, and non-partisan political action were given to show the development of labor's political activity. It was also necessary to study the two labor political committees which later merged to form the Committee on Political Education. The Committees, formed in the 1940's, developed the basic non-partisan philosophy. After tracing labor political development, it was necessary to consider the actual organization of the Committee on Political Education and discuss those factors which have had a direct influence on the development of the Committee. An effort was also made to determine the political effectiveness of the Committee in American politics. The four criteria used to assess the Committee's political effectiveness were: (1) the AFL-CIO'S own assessment of COPE; (2) COPE's financial role in politics; (3) COPE's success at the election polls; and (4) the attitude of professional politicians towards COPE.

FINDINGS: The historical study determined that the non-partisan philosophy was the best means of expressing labor's needs in political activity. Of the four criteria used to assess COPE's effectiveness, the AFL-CIO officials were satisfied with their non-partisan political arm and the election results have shown COPE to be extremely efficient in electing candidates favorable to labor's cause. The criteria of financial expenditures also indicated COPE's effectiveness but could not be considered conclusive. The survey of professional poli-

ticians' attitudes was invalid because of lack of sufficient response to the questionnaire.

CONCLUSIONS: The effectiveness of a non-partisan political program is of vital importance to promote labor's cause. The AFL-CIO's COPE plays a significant role in political education and political activity.

THESIS COMMITTEE: Dr. James Davis, Chairman; Dr. Ronald Riggs
DATE OF COMPLETION: August 1964

AN INVESTIGATION TO DETERMINE THE EFFECT OF SOCIAL SCIENCE UPON THE ATTITUDES OF SENIORS AT RUSH CITY HIGH SCHOOL

by Nicholas G. Schafer

PROBLEM: The purpose of the study was to determine what changes occurred to the attitudes and beliefs held by seniors after taking Social Science 12 in Rush City, Minnesota.

PROCEDURE: A questionnaire was constructed to provide students with a list of questions which were of current controversial interest. The survey was first administered to a group of professors from St. Cloud State College. The responses of these professors served as a key in correcting the students' surveys. The survey was then given to a group of juniors and seniors in high school. The same test was given in the fall and in the spring of the school year. The juniors served as a control group and as a basis for comparison. By tabulating the correct and incorrect responses within each category, a Chi Square Test of significance was applied to the total responses of each category. The Chi Square would indicate whether the change in responses of the students occurred by chance or whether the change was statistically significant.

FINDINGS: In the area of racial and religious prejudice, a comparison of seniors on the first survey indicated a significant difference. In the area of governmental economic activity, the Chi Square value was statistically significant in comparing seniors on the first and second surveys and also in comparing seniors and juniors on the second survey. In no other categories were there any significant statistical differences.

SUMMARY AND CONCLUSIONS: There is little statistical basis to make any conclusions about the effect of social science upon the attitudes of high school seniors. Inferences which can be drawn indicate some shifting of the responses by students. In some categories the shift was in the direction of agreement with the college professors; however, individual questions in all categories will show shifts in student responses in both directions—agree and disagree with the college professors. Generally the changes which occurred in the responses are not encouraging, and it is possible that the impact of education is not highly significant in the attempt to change the attitudes of students.

THESIS COMMITTEE: Dr. Ronald Riggs, Chairman; Dr. Paul Ingwell
DATE OF COMPLETION: December 1963

SPEECH

GOOBLES AND THE TROUBLE MACHINE, A PLAY FOR CHILDREN

by Elinor M. Detra

PURPOSE: The purpose of this paper is to create a play that will give joy to children. Children demand, first of all, sheer enjoyment from their books,

television programs, movies and the like. They are naturally intensely interested in what is going on about them but if the world is to mean very much, the imagination must be fed the food on which it thrives: adventure, nonsense, lyric poetry, music, etc. Of course, I would hope that adults would enjoy this play, but I have written it for children and I have tried to approach it through the environment of the child himself; the land and the water, the real and the make-believe, the people they know, the people they imagine, the jobs they do, the fun they have, the mistakes they make, the songs they sing, and the successes they experience.

We are told that no child ever thinks of himself as a child. When he is not pretending to be an astronaut or a pirate, or some other assumed character, he is to himself a person like everyone else, a dweller in a common world; only very rarely does he think of himself in a separate class as a child. I have attempted to give him full credit for his sensitivity, his high imagination, his attitudes based on experience and sympathy. My aim has been to write a play that would appeal to children through its freshness of story and simplicity of action.

THE PLAY: The play is a children's play; it is an attempt to bring together the conflicting elements of beauty (the ballerina) and ugliness (Goobles, the dwarf); the harmony of this combination makes possible greater beauty for both, and beauty of a greater depth and strength as well. It is an attempt to fuse the fantastic with the "down to earth", an attempt to create a fairy tale that has human implications.

A machine was chosen as the conflict-agent because it is a symbol of our time; the machine is a genuine concern of all of us who cannot foresee man's place in a push-button culture; it is a more up-to-date villain vehicle than a dragon or a troll or a wily fox. Today's children are too sophisticated for this. It is, I think, significant that a machine needs raw material in order to be productive, that, in this case, it has to be fed. That trouble begets trouble, pain begets pain etc. certainly has blatant human implications. Beyond this, however, is the ultimate conflict, the doom of inevitable pain in life vs. man's desire for happiness, the conflict which cannot and should not be resolved.

The language and style are used to heighten the mood, add to the rhythm of the play, express the content, and please the ear.

THESIS COMMITTEE: Dr. Arthur Housman, Chairman; Dr. Paul C. Cairns
DATE OF COMPLETION: June 1964

A STUDY OF THE EFFECT OF SELECTED MISARTICULATIONS ON INTELLIGIBILITY

by Martin A. Kammermeier

PROBLEM: The purpose of this study was to investigate the effect of specified articulation errors upon intelligibility and, further, to evaluate the possible differential effect of [s]-[z] articulation errors, [r] errors, and [l] phoneme errors upon the intelligibility of speech.

PROCEDURE: In order to restrict variation in the multiplicity of variables extraneous to the purposes of this study the following experimental procedure was adopted: The stimulus words of the Multiple-Choice Intelligibility Test devised by Black was recorded on magnetic tape by the author. In order to introduce the desired experimental variables some of the stimulus words containing [s] and [z] sounds, the [l] sounds, and the r-colored sounds were modified so that these words sounded the way they might sound when spoken by an individual who had defective articulation. An equal number of words containing these phonemes were not modified providing a basis of comparison for the words which were modified. All the words were tape recorded and presented to forty-six subjects for identification. The subjects had been provided with answer sheets which contained, in a multiple-choice situation, all of the words spoken. The subjects' task was to identify the words heard by drawing

a line through the word which appeared on the answer sheet in a group of four words. The criterion measure was the number of incorrect responses. The obtained data were subjected to a treatment by subjects analysis of variance and to individual t tests.

FINDINGS: The group of words containing modifications to the [s] and [z] sounds had the greatest number of error responses. The mean number of error responses for this group was 31.91. The mean number of error responses for the group of words containing modifications to the r-colored sounds and to the [l] sounds was 26.17 and 22.78 respectively. The mean number of error responses for the Control Group was 15.76. The differences between the means associated with each treatment were found to be statistically significant beyond the one per cent level of confidence.

SUMMARY AND CONCLUSIONS: Within the limitations of this study it can be said that misarticulation of the [s] and [z] sounds will result in a greater loss in intelligibility than misarticulation of the r-colored sounds; misarticulation of the r-colored sounds will result in a greater loss in intelligibility than misarticulation of the [l] sounds; and misarticulation of the [l] sounds will cause speech to be less intelligible than speech in which no sounds are misarticulated.

It is of ultimate interest, however, to inquire as to the effects of these variables upon the reception of conversational speech. The differential effect of articulation errors observed within the context of the present exploratory study suggest that further investigation of these variables in conversational speech might be profitable.

THESIS COMMITTEE: Dr. Richard McDermott, Chairman; Dr. Paul Cairns
DATE OF COMPLETION: August 1963

FACTORS IN PLANNING THE SECONDARY SCHOOL THEATRE

by Jim Perdue

PROBLEM: The purpose of this study is to assemble, to evaluate, and to arrange in orderly form factors in the planning of secondary school theatres, as they are revealed in source materials concerned with theatre architecture. The writer is hopeful that such a study will provide a synthesized and readable series of suggestions to those multiple and complex problems of planning secondary school theatres.

PROCEDURE: The material for this paper has been obtained intermittently, over a period of thirty-six months. The library research facilities of Minneapolis, Saint Paul, Saint Cloud, and Alexandria, Minnesota were utilized and the results of this research constitute the major portion of the project. However, the study does include some information gathered in personal interview.

FINDINGS: Research showed that there was an obvious shortage of readily available material for anyone interested in planning an educational theatre plant. There were also some differences in the specific figures of various authorities relative to minimum, maximum, and ideal requirements. An important finding, however, was that minimum, maximum, and ideal requirements could be, and were, established in the study.

SUMMARY AND CONCLUSIONS: It is understandable and appreciated that educational institutions are supported by taxes and, as such, are quite often limited in their ability to afford the ideal theatre plant. Certainly, compromises and deviations will be necessary; however, it is clear that theatres should be designed as functional structures relative to their peculiar and individual needs. This paper attempts to focus upon and so to illuminate some of the needs of the typical structure which is to house an educational theatre plant.

THESIS COMMITTEE: Dr. Arthur Housman, Chairman; Dr. Charles Balcer
DATE OF COMPLETION: August 1963

A STUDY OF SELECTED THEATRICAL DEVICES USED IN THE PUBLISHED PLAYS OF EUGENE O'NEILL

by William Peter Studer

PROBLEM: Eugene O'Neill is an important American playwright. Theatricalism is inseparable from his writing. Therefore, it would seem that a study of selected theatrical devices in his writing is one legitimate means of exploring his overall contribution. It is the purpose of this study, then, to isolate, to organize, and to discuss the significance of selected theatrical elements which appear in the published plays of Eugene O'Neill.

PROCEDURE: The writer carefully read all of the published plays of Eugene O'Neill, excluding the seven, copyrighted, unpublished plays in typescript that are registered at the Library of Congress, and the play, *More Stately Mansions*. This cycle play was recently published by the Yale University Press in 1964, and it contains a device similar to O'Neill's use of the aside. The play is an unfinished work, and until 1957, it was thought to have been destroyed. It was shortened from the author's partly revised script by Karl Ragnar Gierow and edited by Donald Gallup. Because it is not a completed work by O'Neill, it is not included in this paper.

Following the reading of the plays, the writer selected five theatrical elements which were significant in the plays: chorus, masks, asides, ghosts and phantoms, and special effects. Many of the devices found in the works fell into two or more categories. Some of the works were found to contain more than one of the basic five theatrical elements. Therefore, each of the individual plays containing a theatrical element or elements is handled separately and chronologically. The following aspects of each individual production are recorded or discussed in order: (1) plot summary, (2) source of the play, (3) theatrical elements contained within the play with illustrations of each element and, (4) summary and synthesis of critical commentary by professional critics, Eugene O'Neill, and the writer, concerning the theatrical elements contained within the play.

Although not all of the sources and critical commentaries in this study relate specifically to O'Neill's use of theatrical devices, it is the writer's position that the consistent presentation of these materials will aid in clarifying the playwright's overall working approach to, and audience reaction to, plays which contain these elements.

FINDINGS: Beginning with *A Wife For A Life* in 1913 and ending with *Days Without End* twenty years later in 1933, Eugene O'Neill's writing called for the use of theatrical elements or devices in fourteen of his forty-four published plays. Choruses are contained in four plays: *The Hairy Ape*, *Mourning Becomes Electra*, *Marco Millions* and *Lazarus Laughed*. Asides are used in *A Wife For A Life*, *Strange Interlude*, and *Dynamo*. O'Neill used masks in five of his plays: *The Hairy Ape*, *Marco Millions*, *Lazarus Laughed*, *The Great God Brown*, and *Days Without End*. Ghosts and phantoms appeared in *Where The Cross Is Made*, *Marco Millions*, *The Fountain*, and *The Emperor Jones*. Special effects are utilized in five plays: *Welded*, *Marco Millions*, *Lazarus Laughed*, *The Hairy Ape*, and *All God's Chillun Got Wings*. Although the playwright's use of these theatrical devices varied from play to play, each device was, at one time or another, used as a central element of the playwright's creative technique. This was the case in the chorus in *Lazarus Laughed*; asides in *Strange Interlude* and *Dynamo*; masks in *The Great God Brown* and *Lazarus Laughed*; and ghosts and phantoms in *The Emperor Jones*. The reasons for the author's use of these devices varied greatly in individual instances.

SUMMARY AND CONCLUSIONS: Experiment and the use of theatrical elements seemed to be contained in the heart of O'Neill's writing. This observation is applicable to O'Neill when the best of O'Neill's works are investigated. The five plays by him most universally commended by critics over a period of time would seem to be *The Emperor Jones*, *The Hairy Ape*, *Mourning Becomes*

Electra, *The Iceman Cometh*, and *Long Day's Journey Into Night*. Theatrical elements were used in three of these plays in varying degrees.

Two plays in which he used theatrical elements most extensively, *Lazarus Laughed* and *Marco Millions*, did not enjoy favorable critical and public reaction.

Experimentation in the use of theatrical elements could be termed one of many of O'Neill's contributions to American and world drama. This contribution occupied a large part of his attention, but it was, perhaps, overshadowed by his stronger qualities.

The use of theatrical devices, then, represented one facet of the creative daring which contributed in large degree to his considerable mark in the history of American theatre.

THESIS COMMITTEE: Dr. Arthur Housman, Chairman; Dr. R. Keith Michael
DATE OF COMPLETION: January 1965

EDUCATION OF MENTALLY RETARDED

A STUDY OF SELECTED VARIABLES RELATED TO TEACHER TURNOVER IN THE FIELD OF MENTAL RETARDATION

by Robert Harold See

PROBLEM: It was the purpose of this study (1) to analyze differential salary as a determinant in teacher turnover, (2) to analyze the number of years in teaching as a significant factor in teacher turnover, and (3) to determine whether the size of the school is a significant factor in teacher turnover.

PROCEDURE: Four-hundred-seven public school teachers of the mentally retarded who started teaching at some time during the 1957 to 1962 school years were used in this study. The schools in which they taught were all reimbursed in part for their special education programs by the Minnesota State Department of Special Education. Data were collected from the Special Education Section and the Teacher Personnel Section of the Minnesota State Department of Education, the *Educational Directory*, and by questionnaire to each school included in the study. Each teacher was classified as a continuing or discontinuing teacher depending upon the number of years he or she taught in special education. Teachers were grouped according to the size of the school in which they taught (small, medium, or large), according to those who received additional salary and those who did not, and again as to the amount of previous experience. These groupings were then contrasted to determine the significance of the factors under study.

FINDINGS: One-hundred-eight discontinuing teachers were tabulated according to the size of the school district. No significant difference was found between the size of the school district and the number of discontinuing teachers. One-hundred-ten teachers received additional salary from the 196 school districts reporting. No significant difference was found in the rate of turnover between those who did receive additional salary and those who did not. Twenty-three of the thirty-eight teachers, tabulated as beginning teachers, continued teaching for more than two years in special education. No significant difference was found in the amount of personnel turnover and the type of experience.

SUMMARY AND CONCLUSIONS: The following conclusions are the result of the findings of the study:

1. The size of the school district, whether small, medium, or large is not a factor in discontinuance of teaching in special education.

2. As a group, teachers in special education who do not receive an increment are not likely to discontinue teaching any more than those who do.

3. As a group, teachers in special education who are lacking in experience are not likely to discontinue teaching any more than those who have teaching experience.

THESIS COMMITTEE: Mr. Stanley Knox, Chairman; Dr. Paul Ingwell
DATE OF COMPLETION: June 1965

AN EXAMINATION OF SELF-REPORTS OF MENTALLY RETARDED SECONDARY HIGH SCHOOL STUDENTS

Donald J. Skay

PROBLEM: The purpose of this study was to determine if differences existed in self-reports between normal junior- and senior-high school students and mentally retarded junior- and senior-high school students in special education classes.

PROCEDURE: A self-report questionnaire was administered to fifty junior- and senior-high school students from the Duluth Public School System. Twenty-five students were in normal classrooms and twenty-five students were in special classes for the mentally retarded. Each group was matched as to age and sex.

FINDINGS: 1. There seemed to be very little difference in self-reports between normal students and mentally retarded students when the total group was compared.

2. There were significant statistical differences on five items of the questionnaire.

3. Of five selected key items relating specifically to the mentally retarded population, only two had statistical significance.

SUMMARY AND CONCLUSIONS: The results of this exploratory study did not agree with popular generalizations about negative self-reports of mentally retarded students. Of thirty items on the questionnaire, only three items had significant statistical difference to constitute a negative self-report. Two other items relating to worrying also had significant difference, but indicated that the mentally retarded students tend to report themselves as worrying less than do normal students.

It is the opinion of this writer that integration of mentally retarded students into normal class homerooms could enhance their chances for meeting new friends and help blend them into a more normal and constructive school atmosphere.

THESIS COMMITTEE: Mr. Stanley Knox, Chairman; Dr. Charles Emery
DATE OF COMPLETION: June 1965

A DEVELOPMENT OF ARITHMETIC CONCEPTS IN TEACHING THE EDUCABLE MENTALLY RETARDED IN THE PRIMARY GROUPS

by Ethelyn Caroline Theis

PROBLEM: This study was designed to determine what educable mentally retarded children, with mental ages of three to eight years, know about arithmetic concepts at each specific mental age. From these data, arithmetic concepts conducive to the learning and needs of mentally retarded children are to be developed. It is hoped that the information will help in determining if a child is ready for specific academic concepts, at certain mental ages, and to determine if such concepts can be taught at these mental ages.

PROCEDURE: Eighty-four educable mentally retarded children, with I.Q.'s of fifty-two to eighty, chronological ages of six to twelve years, and mental

ages of three to eight years, were used in the study. These children were taken from six primary special class rooms in the St. Paul Public Schools.

An Arithmetic Check List was made by the writer, using the Illinois State Curriculum, the Arithmetic Curriculum from the St. Coletta Schools, and McAllister's "Arithmetic Skill Sequence Progress Report," Occupational Education. Concepts used in the Arithmetic Check List included the basic ideas of number, with steps for easy checking to different levels of development. Included with the check list is a group of ninety-four vocabulary concepts.

Eighty-four children were tested individually on all of the concepts, except for sixty-eight concepts, which were administered by means of group work, with directions given orally by the teacher. Later the children were checked individually on their mistakes to see if there would be a gain in the amount of concepts known. Every effort was made to make the testing as uniform as possible, with all of the testing taking place in the classroom during the months of March, April, and May.

FINDINGS: The outcomes for each mental age group indicate a gain in per cent from one group to the next, showing a particular pattern of development. Certain concepts tended to be difficult for all mental age groups, with varying degrees. This difficulty might possibly depend on whether it was an intermediate group concept, the abstractness of the concept, experiences, maturity, and needs of the pupils. Things which are concrete in nature are easier to see, and take less mental transfer for understanding the concept. The per cents received on the intermediate concepts tested indicate a need for a flexible program to take care of all needs.

The vocabulary concepts most frequently identified seemed to be relative concepts, as those used in comparing. Specific measurement tool words and time concepts were the most difficult.

Testing concepts individually did show a gain in per cent over group work. The short attention span was better contented within an individual situation, and the children were less confused when their attention was focused on one item at a time.

SUMMARY AND CONCLUSIONS: The data received in the results show that retarded children are ready for specific concepts at each of the mental ages tested. It shows too, that one does not need to wait until a mental age of six to teach arithmetic concepts. The sequence of steps can begin earlier, building a foundation, with each concept developing from a previous concept already learned.

THESIS COMMITTEE: Mr. Stanley Knox, Chairman; Mr. Alyn Dull
DATE OF COMPLETION: June 1964

ELEMENTARY SCHOOL ADMINISTRATION

A COMPARATIVE STUDY OF THE CONCEPTS OF CREATIVITY IN THE ARTS AND LANGUAGE ARTS OF THE ELEMENTARY SCHOOL

by Enid Floye Anderson

PROBLEM: The purpose of this study was to investigate the concepts of creativity as developed in the arts and their relationships and application to the language arts curriculum of the elementary school.

PROCEDURE: This research will be confined to a comprehensive study of the readings on the concepts of creativity in the field of the arts and the language arts. According to Calvin Taylor, quite different tests will be used in a search for the creative.

The traditional intelligence tests cover only a very few of the dimensions of the mind that we have been discovering to date. Consequently, there may be several other types of intellectually gifted than the I.Q. type, even though the I.Q. type may be closely tied to our current academic activities and to the grades that measure success in our present academic world.

For this reason, with so little being done in the elementary schools at present, no results are possible for conclusive evidence. Therefore the study is only possible by readings available from researchers.

FINDINGS: Viktor Lowenfeld, professor of art education at the Pennsylvania State University, accomplished much in the way of research on creativity. He explains creative growth as:

Creative growth mainly consists of the power to use freely and independently and to apply the six components of growth for an integrated effort.

The eight attributes of creativity, which Lowenfeld speaks of as criteria of creativity, which in all probability could promote creativity in general are explained by Lowenfeld:

(1) Sensitivity to Problems. This entails the ability to see, observe, hear, touch, and feel.

(2) Fluency of Ideas. Here total number of responses produced in art media, design, idea or choice of experiences and ability to think and the rapid use of words.

(3) Flexibility, this criterion is associated with the ability to shift from one category to another.

(4) Originality. This is a vital characteristic, where we look for the uniqueness of verbal and sensory responses.

(5) Redefinition and the Ability to Rearrange. This is a new way to manipulate the functions of objects for new ideas or purposes.

(6) Analysis or the Ability to Abstract. This is for analytical purposes and abstracting the details.

(7) Synthesis and Closure, where the combining or relating of several objects or materials for a new whole or project.

(8) Coherence or Organization, the complete integration of thinking, feeling and perceiving.

J. P. Guilford conducted a study at the University of California, attempting to find measurable criteria of creativeness in the exact and applied sciences.

The criteria arrived at in these two studies, entirely independent, studying the same phenomena for different purposes, was comparable.

Kenneth Beittel of my staff conducted a study to correlate the two batteries of tests. He found that there is a highly significant correlation (.454 and .544 in two studies) between the attributes tested in both investigations. This would then, as far as our data are concerned, establish that creativeness in the arts has common attributes with creativeness in the sciences.

Educationally this seems of great significance, for it implies that through promoting creativeness in general regardless of whether it will be applied to the arts or to the sciences or by implication, elsewhere, as new experiments in auditory sensitivity reveal.

Torrance lists the following concepts in creative thinking through language arts.

1. Ideational Fluency
2. Associated Fluency
3. Spontaneous Flexibility
4. Adaptive Flexibility
5. Originality
6. Sensitivity

This is a sampling from a sixty-item check list.

As you will note, these concepts are comparable to the concepts developed by Guilford and Lowenfeld. Both came up with a fairly high correlation between the applied sciences and the arts.

Beittel's study found significant factors to promote and study creativity in general.

SUMMARY AND CONCLUSIONS: The relationships between the language arts and arts program seem to have a similar correlation. The eight concepts

of creativity as described in the findings of Lowenfeld are comparable to Torrance's concepts in creative thinking through language arts:

Ideational Fluency was explained as "brainstorming" to stimulate ideas and develop fluency of ideas. These techniques could be established through practices in play word games, pupil dictation of stories and ideas on tape recorders or other electrical devices. We must develop competition, healthy competition, to stimulate fluency of ideas.

Associated Fluency was suggested for the use of books such as Roget's *Thesaurus*, as books of synonyms or word references other than the dictionary. There should be plenty of exercise in recognizing word relationships, words of similar meanings, and words of opposite meanings. Other writers mention picturesque words or a study of play on words. Young children learn the meaning of semantics.

Spontaneous Flexibility where the child could think of new uses for some device or product. Children should learn to think of many alternative solutions to a problem.

Adaptive Flexibility entails writing the same message in several forms, for different audiences and for different effects. One could also rewrite stories or compositions in a different setting, with different characters.

Originality would comprise practice in writing unusual titles or captions for cartoons, pictures, news items.

Sensitivity — one example might be a critical reading of comic books and suggestion of changes to make them more realistic and accurate.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. R. Keith Michael
DATE OF COMPLETION: August 1964

AN INVESTIGATION OF THE CURRENT HOMEWORK POLICIES IN THE ELEMENTARY SCHOOLS OF THE ANOKA-HENNEPIN INDEPENDENT SCHOOL DISTRICT NO. 11

by Byron Otas Botts

PROBLEM: It was the purpose of this study (1) to investigate the homework policies in the elementary schools of Anoka-Hennepin Independent School District No. 11; (2) to compare the findings with modern educational authorities' views on the topic through review of current literature; and (3) to make recommendations for a homework policy in view of this finding.

PROCEDURE: The data for this study were obtained by: (1) questionnaires submitted to parents of fourth, fifth, and sixth grade students in the eleven schools of Anoka-Hennepin District No. 11; the teachers in the eleven elementary schools; and the administrators and principals of the school district, (2) a review of other schools' written homework policies, and (3) a review of the literature relating to homework.

FINDINGS: 1. More than 93 per cent of the parents agree that homework helps the students to gain a better knowledge of their subjects.

2. More than 83 per cent of the primary teachers and over 93 per cent of the intermediate teachers feel that home study helps the students to improve.

3. Of the teachers responding to the questionnaire 99.5 per cent agree that home study is necessary in junior and senior high schools.

4. It is the judgment of 100 per cent of the administrators that homework is necessary in junior and senior high schools.

5. A large majority of the teachers observe that determining the amount of work to be assigned on various nights is a problem.

6. Only 33 per cent of the parents feel that there are too many distractions in the home for a child to do his homework.

7. It is the consensus of 100 per cent of the teachers that work to be done at home should be individualized as much as possible.

8. Eighty-nine per cent of the primary teachers and 100 per cent of the intermediate teachers believe that the pupils should be able to do the work assigned without the assistance of parents.

9. Sixty per cent of the administrators are in agreement that the school district should have some type of a uniform policy concerning homework.

10. Seventy-two per cent of the parents are in agreement that they would like to have a policy in the school district which would state in general terms when homework should be given and how much should be given.

11. Eighty-seven per cent of the primary teachers and 92 per cent of the intermediate teachers feel that there is a need for a uniform homework policy of some type in the school district.

SUMMARY AND CONCLUSIONS: 1. The survey indicates that parents, teachers and administrators believe that work assigned to be completed out of school hours should be more consistent in amount and difficulty. There is agreement in professional literature that this is a problem in assigning homework.

2. Home study, aside from recreational reading, should not be assigned on weekends or holidays except on specific occasions.

3. Assignments of work to be done at home should be kept short and interesting.

4. Time should be allowed to follow through on all homework; it should never be just assigned and forgotten.

5. Only that amount of work should be assigned that can be completed in a reasonable length of time. The student should have time for other activities of a social and recreational nature.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. Fred Menninga

DATE OF COMPLETION: August 1963

A PROPOSED PLAN FOR THE ORGANIZATION AND IMPLEMENTATION OF A NONGRADED PRIMARY SCHOOL IN THE LINCOLN ELEMENTARY SCHOOL, WILLMAR, MINNESOTA

by Dorothy Greeley Brown

PROBLEM: The problem was to investigate and determine the methods and means necessary to change the graded primary classrooms of Lincoln School, in Willmar, Minnesota, to nongraded primary classrooms. The purpose was to facilitate a more effective instructional program.

PROCEDURE: *The Nongraded Elementary School*, by John I. Goodlad and Robert Anderson, lists several nongraded schools. The investigator wrote to these schools requesting material on the nongraded plan. Much literature was received from these schools. The nongraded primary schools in Milwaukee and Appleton, Wisconsin, were visited. Principals in both of these school systems were interviewed. From this literature and information, a proposed plan for the organization and implementation of a nongraded primary school in Lincoln School, in Willmar, Minnesota, was developed.

FINDINGS: The nongraded primary plan is usually initiated with the children leaving the kindergarten and extended, one year at a time, until it includes three years of primary work. Grade classifications are eliminated and the children are assigned to classrooms principally on the basis of reading achievement. Within the classroom, homogeneous groups are formed for teaching the basic skills in reading and arithmetic, but heterogeneous groups are encouraged for science, health, art, music, and social studies.

There are no end-of-the-year promotions or failures in the nongraded primary plan because there are no grade classifications. Levels of achievement are established in reading and, usually, in arithmetic. Whenever the child masters the skills on the level of achievement on which he is working, he

advances to the next level. The objective is continuous progress for each child. The child resumes work in the fall on the level on which he was working the previous spring. The slow learner may take four years to advance through the levels of achievement, but he will not have failed as he would have in the graded system. Most children advance through the levels of achievement in three years; however, a very mature pupil could complete the levels in two years. An enrichment program is provided particularly for the fast achievers.

The grade classification is replaced with "levels of achievement" on the child's progress report and permanent record. The date is recorded when the child completes the level of achievement.

Much of the success of the nongraded primary school depends on orienting the faculty and parents to the advantages and objectives of the nongraded plan.

SUMMARY AND CONCLUSIONS: The present study reveals that the nongraded primary plan is an administrative device to encourage more flexible grouping of children. Children with similar reading achievement are assigned to one classroom. Because a teacher has a narrower range of achievement in fewer groups within her classroom, she has time to make more effective preparations and sufficient time to emphasize and teach the specific skills and concepts the child needs to learn.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. Arnold Zaeske

DATE OF COMPLETION: August 1963

ADMINISTRATIVE HANDBOOK FOR BLOOMINGTON ELEMENTARY PRINCIPALS

by Gerald B. Carlson

PROBLEM: The purpose of this project was to compile a handbook for the benefit of elementary principals who have assumed the responsibility of administering and supervising the educational program of an elementary school.

PROCEDURE: The project was divided into seven basic areas. These included: (1) an introduction to the problem, (2) Administration, (3) Curriculum, (4) Supervision, (5) Public Relations, (6) School Board policies and regulations, and (7) a summary and conclusions of the project.

The literature was reviewed for the purpose of discovering how other school systems have attempted to provide elementary principals with existing rules, regulations, and policies. Much of the material for the handbook is currently available throughout the district. The primary task was to gather, evaluate, and organize it into written form.

FINDINGS: The review of literature seemed to indicate that most of the materials applied directly to elementary principals in their specific school system; however, this information may be of value to elementary principals by providing them with a framework in building their own administrative handbook.

After reviewing the literature as well as compiling existing rules, regulations, and policies, it was the belief of the writer that elementary principals would profit by having the material gleaned from the various sources and assembled into a useable form. The inexperienced elementary principal as well as the experienced administrator would welcome the readily available ideas, suggestions, and information. It appeared that a handbook may best serve this function. In this way materials would be readily accessible to the elementary principals at all times.

SUMMARY AND CONCLUSIONS: Specific suggestions, rules, and regulations were presented that would be of value to elementary principals. The following areas were included:

1. Administrative responsibilities of the elementary principal.
2. The directing of curriculum in the elementary school.
3. Supervision of certified and non-certified personnel.

4. The public relations program in the elementary school.

5. School board policies and regulations.

The handbook that was developed in this project could be of value to elementary principals who are already engaged in the principalship. It could facilitate their work by providing in a compact form, materials which give suggestions for administering and supervising the educational program of an elementary school.

Handbooks are most effective when developed cooperatively with principals participating. They must be used to be effective. The use of the handbook might aid in systematizing the program from one elementary principal to another.

The handbook could also be of value to colleges in aiding and strengthening their own elementary administration program as well as be of assistance to prospective elementary principals.

As the handbook presented in the work was developed it became apparent that revision would be imperative almost immediately because of the need to bring policy and practice into agreement.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. James Ashe

DATE OF COMPLETION: August 1964

A COMPARATIVE ANALYSIS OF HEALTH AND READING TEXTBOOKS TO DETERMINE THE EMPHASIS ON CONTENT CONTRIBUTING TO SOCIAL AND EMOTIONAL HEALTH

by Robert M. Frisell

PROBLEM: The purpose of the study was to analyze selected fourth, fifth, and sixth grade health and reading textbooks to determine the adequacy with which the selected textbooks meet the goal of contributing to the promotion of social and emotional health education.

PROCEDURE: A review of related literature was made to establish the objectives used in evaluating the textbooks concerned with the study. A chart was formed of the objectives arrived at in the review of related literature. With the aid of the chart each textbook was analyzed to determine its emphasis on each of the objectives contributing to social and emotional health. When the analysis of a book was complete, the check marks were totaled for each objective; these marks were then compared with the number of selections in the book. From this comparison, a percentage was found indicating the amount of emphasis on each objective. A total of the percentages from the various objectives was found and from this total an arithmetic mean was arrived at indicating the emphasis the book placed on social and emotional health.

FINDINGS: The arithmetic mean of all reading textbooks was 60 per cent. The greatest percentage for any reading book investigated was 71 per cent, while the lowest for any reading book was 50 per cent. The arithmetic mean for all health textbooks investigated was 73 per cent. One health textbook scored only 68 per cent, while the highest rating for any health text in the study was 85 per cent.

SUMMARY AND CONCLUSIONS: Reading textbooks examined seemed to be fairly adequate in regard to the inclusion of material contributing to the promotion of social and emotional health of the child. Health textbooks examined did a somewhat better job of emphasizing objectives which contribute to the promotion of social and emotional health than did the reading books.

There is a definite lack of adequate research on the incidence of inclusion of material in textbooks that could contribute to social and emotional health. These findings would seem to indicate a need for the writers of textbooks to re-evaluate their objectives in textbook purpose and construction.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. George Serdula

DATE OF COMPLETION: August 1963

A COMPARATIVE STUDY OF PHONOVISUAL MATERIALS USED IN THE FIRST GRADE CLASSES OF THE ST. CLOUD PUBLIC SCHOOL

by Jerome Allen Hayenga

PROBLEM: It was the purpose of this study to compare the progress made by students having experienced the basic reading program in grade one of the St. Cloud Public Schools in 1960-61 and those students in grade one in 1961-62 who experienced the basic reading program plus the Phonovisual Method. An effort was made to determine whether progress made in reading could be attributed to the use of Phonovisual Materials.

PROCEDURE: The 1960-61 pupils are referred to as the Basic Group and the 1961-62 pupils as the Phonovisual Group. To compare the progress of these two groups, test results from the SRA Primary Mental Ability test and the Gates Primary Reading Test were used. The raw test scores were treated statistically and tabulated in frequency distributions for boys and girls separately. The Means and Standard Deviations were computed to be used in computations of the t-test for uncorrelated means which was used to determine if any significant difference existed between the Basic and Phonovisual Groups.

FINDINGS: According to t-test comparisons no significant difference existed between the Basic and Phonovisual Groups for either the girls or boys on mental ability, word recognition, sentence reading, paragraph reading and total reading. Mean score gains were made by the Phonovisual Group above those of the Basic Group. These averaged one and a half months for the girls and one-half month for the boys.

SUMMARY AND CONCLUSIONS: The t-test comparison of mental abilities indicated no significant difference between the Basic and Phonovisual Groups for either the girls or boys. This eliminated any difference in reading achievement being attributed to any dissimilarity in mental ability between the two groups.

According to t-test computations no significant difference existed between the pupils in the Basic and Phonovisual Groups on any area of the Gates Primary Reading test. Although no significant difference existed, the Phonovisual Group did make average mean score gains above that of the Basic Group. The girls averaged one and a half months and the boys averaged one-half month above their respective groups. These gains may be important in the future and should be checked by a follow-up study to determine if the Phonovisual Group continued to make gains to the point of significance.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. Arnold Zaeske
DATE OF COMPLETION: August 1963

ANALYSIS OF THE FUNCTIONAL USE OF SUPPLEMENTARY PHONIC MATERIALS IN READING

by William Albert Koeckeritz

PROBLEM: The purpose of the study was to analyze the functional use of supplementary phonic materials in reading and some of the trends in the Minnesota schools.

PROCEDURE: The problem was studied by reviewing library literature which was confined mainly to the last five years. A checklist questionnaire was sent to 107 Minnesota schools to check what materials were being used, how they were used, and what records were kept to check their effectiveness. Letters were written to the publishers of supplementary materials asking for information regarding the installation of their material.

FINDINGS: The study revealed that 75 per cent of the reporting schools used supplementary phonic materials in the reading program. Most of these schools added supplementary phonic materials to strengthen the word recognition skills. Other reasons were chosen by a fewer number of schools. The materials used were workbooks, charts, records, and games. All schools used workbooks and many schools used charts and games. Workbooks have limited utility especially in grade one. The materials used a wide variety of generalizations. The utility of the generalizations depends on the application and the time spent in teaching them.

Approximately twenty minutes a day was devoted to teaching the supplementary program. Less than one-half of the schools kept any records of the results after adding the program. Very few schools supplied information or data that verified the use of the supplementary materials. The schools that did supply results of the program indicated an advantage for children receiving early instruction in phonics in lower elementary. This advantage did not maintain itself in the upper elementary grades. A good basic reading program eventually overcomes the special phonics programs.

Research in the programs is limited and lacks adequate controls. Inaccurate data and reports are problems in ascertaining the accuracy of the studies. Research is often on one phase of the reading and not the whole program.

SUMMARY AND CONCLUSIONS: Concluding and summary statements of the study. The study indicated that the argument phonics versus sight-word method has no legitimate place in reading. The problem of phonics is how, what, and when should it be taught. There is a need to teach phonics as one method of word attack but not to be isolated as the only method of teaching word recognition. The use of supplementary phonics materials does increase word recognition in the primary grades. The increased ability is not maintained in the upper elementary grades. The good basic reading program well taught will eventually show equally good results and somewhat better results in comprehension in upper elementary grades.

There is a need for further study in certain areas. There is a need for further study in the use of generalizations and which should be taught. A study of the functional use of workbooks especially in the first grade is necessary. Many workbook lessons may be intended for a certain learning activity but the results of the lesson may prove differently.

The construction of methods to test the effectiveness of teaching phonics is needed for teachers so the application of the lesson can be carried out to its full meaning. This is needed as phonics is taught but not necessarily applied by the pupils.

If an experimental program is established a thorough study of the area to be studied should be made prior to the beginning of the program. This would aid in a more effective evaluation of the program.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. Arnold Zaeske
DATE OF COMPLETION: February 1965

A PROPOSED IN SERVICE TRAINING PLAN FOR SUPERVISING TEACHERS AT ST. CLOUD STATE COLLEGE

by Mary Felice Russell

PROBLEM: The purpose of this study was to propose an in-service plan of education for supervising teachers who have the responsibility for cooperation in promoting improvement in the performance of the kinds of skills needed for effective training, supervision, and guidance of student teachers.

PROCEDURE: The study was based upon a review of literature which included a presentation of the historical development of the supervising teacher in the student teaching program, and the preparation for supervision with an emphasis on in-service training programs.

FINDINGS: The review of the literature revealed present trends and practices, insight into problems and merits of the role of the supervising teacher in a student teaching program and suggestions for an in-service plan of action based on concepts established through research.

The college has traditionally assumed the responsibility for supervising the student teachers. Because of increased numbers of student teachers to be supervised, of long trips to many public schools, of infrequent conferences with supervising teachers, a college supervisor has difficulty in adequately supervising each student teacher. With the increase in the numbers of teachers in training, a new perspective of this job may be necessary.

Proposals support the premise that the role of the college supervisor may be modified so that he becomes a consultant and resource person who works primarily with supervising teachers.

Competencies that may be desirable for supervising teachers and college supervisors in their various roles were identified.

An in-service program aims to assist the supervising teacher in the classroom, in the teaching profession, in the student teaching program and in the community.

The public schools and colleges of education have begun studying the means of developing more effective programs for the selection and education of supervising teachers. One method may be the utilization of key supervising teachers. They may be selected for leadership roles in the preparation of other supervising teachers. The key supervising teacher would be a member of a cooperative team including the public school coordinator and the college supervisor. This group could provide the in-service training for supervising teachers. The program could include conferences, workshops, informal seminars and would utilize supervisory bulletins and student teaching handbooks.

SUMMARY AND CONCLUSIONS: A practical and realistic program of in-service training for volunteer key supervising teachers is proposed. The continuous in-service plan of training implies cooperation of the college supervisors, coordinators, supervising teachers, and student teachers in providing meaningful individual and group experiences. Through an in-service program, a supervisor gains knowledge by which he can identify and apply key concepts, facts, and principles from a number of disciplines.

It appears that there is a need for improving lines of communications and public relations between the cooperating schools and the college.

The student teaching program may be considered one of the most important phases of the pre-service education of teachers. The necessity of a careful selection of supervising teachers is the joint responsibility of the school administration and the college. Devices such as conferences, workshops, study groups and consultant services can provide continuous in-service training.

The student teacher program affords the participants the opportunity to work together as professional partners in the preparation of the future members of the teaching profession.

THESIS COMMITTEE: Dr. Floyd Perry, Chairman; Dr. James Grunerud
DATE OF COMPLETION: August 1963

A SURVEY OF THE USE OF INSTRUCTIONAL AIDS FOR HOMEBOUND TEACHING IN SELECTED MINNESOTA SCHOOLS

by Maurice Eugene Volker

PROBLEM: The purpose of this study was (1) to determine if school districts were making use of funds available for teaching homebound children; (2) to determine if certain standards and procedures were practiced by school districts; (3) to determine the methods used for teaching the homebound children; and (4) to determine which devices were used to teach the homebound children.

PROCEDURE: Information was gained through a review of literature, personal interviews, and a checklist type questionnaire. During the school year 1964

the questionnaire was sent to 109 school districts. The selection was made from the Minnesota Educational Directory on the basis of school population. One-third of the questionnaires were sent to districts having more than 3,000 children enrolled, one-third were sent to districts having from 2,000 to 3,000 children enrolled, and one-third were sent to districts having an enrollment of less than 2,000 pupils. The selection was made at random from the three groupings. The questionnaires were completed by the administrative departments in charge of special education, and returned in an accompanying stamped, self-addressed envelope. Of the 109 districts, 96 or 88% responded.

FINDINGS: School districts were making use of funds available for teaching the homebound children. The most common method used to instruct the homebound child was home visitation with regular classroom materials forming the course of study. Other procedures included the use of programmed materials, teaching by telephone, television, radio, recordings, films, filmstrips, slides, and correspondence courses.

The returned questionnaire indicated that 15% of the school districts employed teaching by telephone; 10% used correspondence courses, 2% utilized television; 29% used programmed materials; 39% used films and slides; and only 1% made use of radio. Teaching by telephone was used more on the secondary level than on the elementary. All academic subjects were taught successfully by this method. Films and slides were used in 37 districts. Of these 37 districts 25 made little use of them, 12 made average use of them, and none used them extensively. Programmed materials were employed in 28 of the 96 districts. Of the 28 districts 22 reported little use of them, 5 used them an average amount, and 1 used them extensively.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS: This study indicates that the homebound child has more social and emotional needs than the child who attends a regular classroom. The homebound teacher should be aware of these needs and strive in every way possible to help satisfy them. To the child, he is the vital link between the home and school. There are many aids to teaching that might be employed by the resourceful homebound teacher, some of which are designed especially for his use. However, the results of the questionnaire seem to indicate that more extensive use could be made of them. It is also felt that handbooks, prepared by the school districts for the parents of homebound children would be very beneficial to all persons concerned with the homebound program.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. James Ashe
DATE OF COMPLETION: August 1964

THE ROLE OF EDUCATION IN THE SOCIAL, CULTURAL AND ECONOMIC DEVELOPMENT OF AN INDIAN COMMUNITY

by Harold Olaf Weberg

PROBLEM: The purpose of this study was to examine the status of the Indian of the Mille Lacs Indian Reservation so that his position in modern society could be more clearly defined and to present the reasons why that position had resulted in an Indian problem. The specific purpose was to determine how education was working toward a solution of the problem.

PROCEDURE: For the most part, background on the problem was gained through twenty-three years of direct experience as elementary principal, teacher and counselor in the Mille Lacs Indian community. The interchange of information with personnel of other schools in Minnesota with predominantly Indian enrollment and personal contact with the state and federal governmental agencies dealing with the Indian substantiated the findings, and kept the investigator abreast with current developments. Library research contributed information

on the Indian problem as a whole, but with the exception of recent survey reports and current governmental pamphlets, little material was available solely on the problem in Minnesota.

FINDINGS: It was determined that the Indian problem was caused by the low social and economic standards of living found on the Minnesota Indian reservations. In the eyes of white society, the Indian was regarded as a distinct minority race. The unfavorable attitude of the white and the Indian toward each other was a barrier to integration. Finally, it was determined that education in its various phases was the most obvious solution to the Indian problem.

SUMMARY AND CONCLUSION: The Indian problem is associated with the reservation. The atmosphere of life and the feeling of wardship is not conducive to initiative and progress. Since few of the requisites considered necessary to meet modern social and economic standards are present on the reservation, there is little opportunity for change. If the Indian can be given the advantages of higher education and vocational training, he will more easily make the adjustment to integration into modern American society. Federal agencies, through programs of vocational training and relocation, are expediting this transition. The local schools on the reservation are supplementing their curriculums to prepare the Indian to adjust to the improved living standards.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. Herbert Lohrman
DATE OF COMPLETION: August 1963

ELEMENTARY SCHOOL EDUCATION

A PROGRAM OF ENRICHED STUDIES IN SCIENCE FOR GIFTED CHILDREN IN GRADES FOUR, FIVE, AND SIX IN DISTRICT 273 EDINA, MINNESOTA

by Quentin Richard Bosiger

PROBLEM: It was the purpose of this study (1) to survey the literature on enriched studies for the gifted in elementary school; (2) to survey the enrichment practices for the gifted used in Independent School District 273; (3) to develop an experimental program of enriched studies in science for the gifted in grades four, five, and six in District 273.

PROCEDURE: Teachers currently working with the gifted and regular classroom teachers were informally interviewed to establish past enrichment practices and any problems which were encountered. A survey was conducted of the current literature in the field of enrichment for the gifted in elementary school. A program of enriched studies was developed from the above sources of information. The program used a problem solving approach employing problem-projects.

Gifted children in grades four, five, and six were selected to participate in the program.

A questionnaire was submitted to the teachers of the children who participated in the program. The items in the questionnaire returns were analyzed and are presented in this study.

FINDINGS: In the results of the present study it was found that: (1) about half of the teachers felt that the Enriched Studies Students spent too little time on their projects, and almost all of the teachers felt that they spent too little of their spare time in the regular classroom on their projects; (2) most of the teachers felt that the Enriched Studies students made contributions of materials gained in Enriched Studies work in an unpretentious and informative manner,

but that these contributions were not made often enough; (3) most of the teachers felt that the Enriched Studies student's general understanding and knowledge of science was broadened by their work in Enriched Studies, and about two-thirds of the teachers felt their scientific attitudes improved; (4) about half of the teachers felt that the Enriched Studies students work habits and research techniques were improved by their work in Enriched Studies; (5) almost all of the teachers felt that they could make good use of the Enriched Studies units and projects for the enrichment of science in regular heterogeneous classrooms.

SUMMARY AND CONCLUSIONS: The study seemed to reveal that the problem solving approach to enrichment recommended by authorities in the field can be effectively implemented in problem-projects. From the opinions expressed by the majority of the teachers, and the results observed by the investigator it would seem that the problem-project method used in the study was effective in developing the learnings of the gifted in grades four, five, and six in the Edina-Morningside School System. It would seem that the voluminous and diversified resources especially secured for these students also contributed to the effectiveness of the program.

THESIS COMMITTEE: Dr. Donald Pollock, Chairman; Dr. Arnold Zaeske
DATE OF COMPLETION: August 1963

AUTO-INSTRUCTION FOR UPPER ELEMENTARY SCHOOL PUPILS: DETERMINING THE KEY AND THE BEGINNING SYLLABLE OF VOCAL MUSIC IN THE MAJOR KEY

by June Rossiter Johnson

PROBLEM: Determining the key and the beginning syllable in vocal music of the major key is a small, but rather involved, unit of instruction to which most pupils are exposed from time to time in their school careers, but one which many never really understand. The purpose of this project was an attempt by a teacher to develop a successful program of auto-instruction by which upper elementary pupils would learn to determine the key and the beginning syllable of vocal music in the major key.

PROCEDURE: A survey of literature on developing a program was made. Next, the intermediate goals were outlined in detail — goals that would lead the student in logical sequence to the stated terminal behavior. From this outline frames were typed, and two panels were prepared to present large over-all concepts. A pretest, a posttest, and separate answer sheets were devised.

The pretest was used to screen subjects of the upper elementary level of age and grade placement. Only those were chosen who, after careful explanation to refresh their memories, were still unable to go through the procedure for determining the key and the beginning syllable in a song. As each of the thirteen subjects worked through the program, areas of difficulty were noted, and revisions were made accordingly. Major revisions were made during the first part of the period of trials. A record was kept of the length of time spent in working the program and of the posttest scores.

FINDINGS: The percentage of errors made on the program by the first five subjects was around 20 per cent; while subjects averaged 9 per cent on the remainder of the trials. Posttest scores were more erratic, ranging from a low of 33 per cent for the first two trials to a high of 92 per cent for the eighth and ninth trials. The high scores were made by the two oldest subjects going into the seventh grade. Subjects required from two to three hours to work through the program after it had reached its approximate maximum length.

SUMMARY AND CONCLUSIONS: Thirteen subjects cooperated in the development of a program of auto-instruction written by the author who is an elementary school teacher. Although the average percentage of errors of subjects working on the program was satisfactory, the posttest scores indicated that the

program is not auto-instructional as defined for the terminal behavior, except for the two oldest subjects. The adequacy of the posttest was questioned.

The program could be further revised into smaller steps, but the increased length might discourage its use in the classroom. It could be given further trials with six (or seventh) grade students; and it could be tested in sixth (or seventh) grade classrooms.

The program could be further revised into smaller steps, but the increased length might discourage its use in the classroom. It could be given further trials with six (or seventh) grade students; and it could be tested in sixth (or seventh) grade classrooms.

The experience of programing is valuable to teachers in the field and in teacher-education in that it forces the programmer to employ successful teaching techniques, and it provides insight into the learning process.

THESIS COMMITTEE: Dr. Frank Slobetz, Chairman; Dr. Donald Pollock
DATE OF COMPLETION: August 1963

AN INVESTIGATION OF THE STABILITY OF SOCIOMETRIC CHOICE STATUS OF KINDERGARTEN CHILDREN

by Lois McDermott

PROBLEM: The purpose of this study was to examine the stability of choice status of kindergarten children as determined by sociometric tests given over two-month, four-month, six-month and eight-month test intervals.

PROCEDURE: One hundred and fifty kindergarten children, distributed among five kindergarten classes, were given sociometric tests at two-month intervals over a period of nine months. Class members were then ranked according to individual popularity scores derived from the number and order of choices each child received.

A Spearman rho analysis was performed to determine the stability of rank status, between groups, over the given test-retest time intervals.

CONCLUSIONS: On the basis of the results of the statistical analysis of the obtained data the following statements may be made:

(1) Choice status data reflect choice status of kindergarten children inadequately for time intervals longer than two months.

(2) Although some groups demonstrate significantly stable social status when data are obtained over a two-month interval, high variability among classes does occur.

THESIS COMMITTEE: Dr. Frank Slobetz, Chairman; Dr. Frederick Markwardt, Jr.
DATE OF COMPLETION: June 1964

A COMPARATIVE STUDY OF EYE-HAND DOMINANCE AS RELATED TO HANDWRITING ACHIEVEMENT

by Verna Jane Maki

PROBLEM: It was the purpose of this study (1) to determine the incidence of mixed-dominance among a specific group of fifth grade students, and (2) to determine whether students with lateral dominance achieved higher scores in the quality and speed of writing than students with mixed-dominance.

PROCEDURE: The subjects selected for this study were 115 fifth grade students. Each student was checked for eyedness and handedness by means of the Harris tests of Lateral Dominance. The students were then separated into two groups under the classifications of LATERAL DOMINANCE and MIXED-DOMINANCE.

A handwriting test was administered which provided the samples to be used for evaluation purposes. Ratings were given for quality and for speed. The Ayres Handwriting Scale, Gettysburg Edition, was used for testing and rating purposes.

The data were tabulated and computations were made to describe the distributions of the test scores for both quality of writing and speed of writing. The z ratio and the .01 level of confidence were used to determine the significance of the differences between the mean scores for both tests.

FINDINGS: Of the 115 students tested, 66 per cent of the cases were characterized by lateral dominance and 34 per cent were characterized by mixed-dominance.

The results of the writing tests showed that the lateral dominance group did not achieve significantly higher scores in the quality of handwriting than the mixed-dominance group.

The lateral dominance group did receive significantly higher scores in the speed of handwriting than the mixed-dominance group.

SUMMARY AND CONCLUSIONS: In the comparative study of handwriting achievements of a group with lateral dominance and a group with mixed dominance, a significant difference was found in the speed of writing but not in the quality of writing. It would appear that the characteristic of mixed-dominance forces the student to make some accommodations which slow down the performance. On the basis of the findings, it would appear that mixed-dominance is a significant factor for parents and teachers to take into consideration in the development of eye-hand coordination of children, particularly in relation to the speed of handwriting.

The survey of the laterality characteristics of the 115 fifth grade students showed that there was a relatively high incidence of mixed-dominance. These findings tended to confirm the conclusions of previous studies that mixed-dominance is highly prevalent among most school age groups of children.

More studies of this nature are needed to determine the effects of mixed-dominance on achievement in all subject areas and at all grade levels.

THESIS COMMITTEE: Dr. Arnold Zaeske, Chairman; Dr. Albert Luker

DATE OF COMPLETION: July 1963

GUIDANCE AND COUNSELING

A REPORT OF THE CONSTRUCTION OF A CARD FILE IN WHICH VOCATIONS ARE LISTED UNDER HIGH SCHOOL SUBJECTS

by Orvis F. Anderson

PROBLEM: This project was an attempt to prepare a card file to be used in vocational counseling. The card file consists of vocations filed under high school subjects that are considered essential in preparation for the vocations listed.

PROCEDURE: Information was gathered from four sources: (1) The **Occupational Outlook Handbook**; (2) Requests for Information; (3) Personal Interviews; and (4) Federal Civil Service Manuals and Handbooks.

The **Occupational Outlook Handbook** was an abundant and ready source of the information desired. Each job description had a section describing the amount of training and other qualifications necessary for the vocation. This section usually stated the desired amount of education needed for employment in the vocation described. Another section entitled, "Where to go for More Information" gave addresses of one or more organizations that could be contacted should more information be needed. These addresses were used for

some of the Requests for Information if there was any possibility of doubt about the amount and kind of education needed.

Requests for Information were sent to two hundred twenty-three individuals and organizations that were considered authorities on skills, education, and training needed for specific vocations. Two hundred thirteen requests were answered. One hundred ninety-one of the answers contained the information requested.

A one-page questionnaire was used during personal interviews with persons working in Canby, St. Cloud, and Sartell, Minnesota. Sixty-one persons were interviewed at their places of employment. Each person answered questions on the questionnaire pertaining to his particular vocation. Results from forty-two of the sixty-one questionnaires were used in this study. This method of acquiring information was very time-consuming but was also very informative.

Considerable information was obtained from two publications of the United States Government. These two publications were the **Veterans Administration Manual MP-5**; "DM and S Qualification Standards" (DM and S are the initials for "Department of Medicine and Surgery".) and the **Civil Service Handbook X-118**; "Examining Guides, Parts I and III; Qualifying Standards for Classification Act Positions." From these two sources, requirements were listed for two hundred thirty-four vocations.

FINDINGS: Information was taken from the **Occupational Outlook Handbook** discussing seventy-four vocations. The Requests for Information produced material for one hundred ninety-one; the questionnaires used during personal interviews resulted in an additional forty-two; while requirements were listed for two hundred thirty-four vocations from the information given in the Federal Civil Service Manuals and Handbooks. By eliminating some duplication of vocations and some listings that did not offer much information, the total number of vocations registered in the file was reduced to five hundred. The cross-indexing of these five hundred vocations under each high school subject per vocation made a total of about two thousand cards.

SUMMARY AND CONCLUSIONS: A card file has been developed containing about two thousand cards. These cards are cross-indexed to give information pertaining to five hundred vocations. The purpose of the card file is to produce a source of information for the student wanting to survey a list of vocations utilizing one or more subject areas. The student can locate his subject interest in the card file and study the listing of vocations filed under the subject area heading.

THESIS COMMITTEE: Dr. Albert Luker, Chairman; Dr. Clair Daggett
DATE OF COMPLETION: July 1964

AN OPINION STUDY CONCERNING THE IMPORTANCE EACH OF FIVE BASIC SKILLS HOLDS FOR SUCCESS IN COLLEGE AND THE RELATIVE ADEQUACY OF HIGH SCHOOL PREPARATION IN THESE SKILLS

by Daniel George Barnett

PROBLEM: It was the intent of this study to determine through opinions expressed by the academic deans of Minnesota's colleges and universities which of five basic skill areas are most important for success in college and the relative adequacy of high school preparation in each of these skills.

PROCEDURE: An extensive review of the literature and personal interviews were conducted to determine which skills may be related to success in college. These skills were then categorized into five basic skill areas, which are: Reading Skills, Basic Mathematical Skills, Communication Skills, Critical Thinking Skills, and Study Skills.

The primary source of information, the questionnaire, was composed of three items. The first two questions asked the academic deans to rank the five

skills according to their relative adequacy of high school preparation and the relative importance each held for success in college. A third question was left open-ended to enable the deans to contribute any personal observations.

The questionnaire was sent to thirty-six academic deans, twenty-seven of whom replied, giving a seventy-five per cent response.

FINDINGS: According to the percentage of "high" ratings each received, the skills were ranked in the following order of adequacy of preparation: Reading Skills, Communication Skills, Basic Mathematical Skills, Study Skills, and Critical Thinking Skills. The Skills were ranked in this order of importance for college success: Reading Skills, Critical Thinking Skills, Communication Skills, Study Skills and Basic Mathematical Skills.

In response to the open-end question, many of the deans discussed the adequacy of high school preparation in each skill area. Although they had previously ranked the skills according to their relative adequacy of preparation, the majority of the respondents who discussed this preparation considered it inadequate. Only about one-third of these deans considered it to be adequate or at least to have improved within the last ten years.

Other responses included a discussion of specific weaknesses within each skill area. Some of the most frequently listed weaknesses were: Reading speed and comprehension, lack of awareness of the principles of mathematics; inability to analyze and develop ideas both in writing and orally; inability to use correct grammar, punctuation, and spelling; and lack of self-discipline, motivation, and ability to budget study time.

SUMMARY AND CONCLUSIONS: From the two rankings it seemed that while high schools should continue to maintain and improve their preparation in the other four skill areas, some consideration should be given to methods of developing Critical Thinking. Because of the close relationship that seemed to exist between the literature and the relative adequacy of high school preparation, it may be beneficial for other writers to concern themselves with this problem.

It may also be useful for high school personnel who assist college-bound students in the selection of courses to consider the low ranking of Basic Mathematical Skills concerning its importance for college success.

It is the hope of this writer that the information obtained in this study may assist high school and college personnel in helping students make a smoother transition and raise questions for further investigation.

THESIS COMMITTEE: Dr. Albert Krueger, Chairman; Dr. Charles Balcer
DATE OF COMPLETION: August 1964.

A SURVEY OF THE ORGANIZATION, ADMINISTRATION AND FUNCTION OF THE ST. CLOUD AREA VOCATIONAL-TECHNICAL SCHOOL AS A PRIMARY REFERRAL AGENCY FOR THE VOCATIONAL GUIDANCE COUNSELOR

by Assazenew Baysa

PROBLEM: The St. Cloud Area School was established in 1948 and since that time several articles have been written concerning its various aspects. However, there has never been a single comprehensive written work done for possible uses as a referral source whenever a need for more detailed information concerning the school arises. The realization of this problem and the search for model organizational, administrative and functional conceptual elements which could be used in establishing in Ethiopia similar area schools for use as primary referral agencies for the vocational guidance counselors have led the writer to conduct this survey.

PROCEDURE: In the process of defining the thesis problem areas for investigating, locating and identifying materials relevant to the solution of the

problem, personal interview techniques were employed as one of the major approaches. The interviews were conducted in a question-answer form. Upper case letters (Q) and (A) were used to stand for the two words, question and answer respectively.

The second method employed was the gathering of relevant literature concerning every possible aspect of the school and the development of American vocational education in general.

Third, the collected data were read, evaluated and made ready for presentation.

Finally, the data were organized and presented under five chapters that made up the thesis.

FINDINGS: Examination of the historical background of American vocational education seems to confirm the fact that the practice of offering vocational education programs in schools was born in Germany and later spread to other European countries.

The United States launched its own version of vocational education after making an investigation in Germany. The development of the American vocational education was fostered by various acts of Congress such as the Smith-Hughes Act. The contribution of private organizations and various state governments had been extremely helpful in setting the pattern for the National American vocational education.

The State of Minnesota adopted its huge vocational education plan through its State Board of Vocational Education on June 13, 1927, which was approved by the Federal Board for Vocational Education on September 14, 1927. In 1945, the State of Minnesota stepped up its vocational education program and authorized, by an act of the legislature, a more modern form of vocational education program. The key word to this modern vocational education program is the term 'area' which will be explained in the following discussions.

The St. Cloud Public School Board created its vocational institution in 1948 after receiving a permit from the State. The institution was officially named as the St. Cloud Area Vocational-Technical School. The word 'area', included in the title of the school, indicates the modern concept or philosophy on which the creation of the school was based. It seems that this concept was born out of needs or problems experienced by the people charged with the provision of vocational education for all who needed it. Relative to America's rapid economical growth, swift technological and vocational changes, threatening automation and the complexity of modern technology, the vocational education programs of many high schools in the country were found to be inadequate.

The solution to this problem was found in the creation of one good central referral agency which serves the vocational education needs of a wide region or several schools of a large area.

SUMMARY AND CONCLUSIONS: In the writer's opinion, finding the way the area concept was used in solving several American vocational education shortage problems is the most significant organizational model that could be used in Ethiopia for handling similar problems. The area concept approach to the vocational education problems seems to be highly significant for it makes possible thrifty uses of available vocational education resources, easy exchange of new ideas and techniques, equalized vocational education opportunities, upgraded instructions and programs, sound vocational and educational guidance services and rigorous administration.

The organization, administration and the function of the St. Cloud Area School seem to be very successful, according to available evidences. The school plays a very important role in the education and economic growth of the St. Cloud community.

In the light of the evidences presented in the body of the thesis, it seems quite legitimate to make an assumption as a concluding remark. The assumption is as follows: Some of the skills, the ideas and the practices that are proven to work effectively in organizing, administering and operating the St. Cloud

Area School could be used as models in establishing similar vocational schools in Ethiopia to handle similar vocational education problems.

THESIS COMMITTEE: Dr. M. E. Van Nostrand, Chairman; Dr. Fred Menninga
DATE OF COMPLETION: July 1963

AN EVALUATION REPORT OF THE NATIONAL DEFENSE EDUCATION ACT COUNSELING AND GUIDANCE TRAINING INSTITUTE CONDUCTED AT ST. CLOUD STATE COLLEGE 1962

by Evelyn Louise Dahlberg

PROBLEM: The first National Defense Education Act Counseling and Guidance Training Institute was conducted at St. Cloud State College during the summer of 1962. The purpose of the thesis was to report as completely as possible the facts on the first Institute with evaluations by all the participants. It was thought that such a factual record and evaluation might facilitate the organization of future Counseling and Guidance Training Institutes, and possibly provide some information of significance to the guidance program at St. Cloud State College.

PROCEDURE: It was felt that an historical background on Federal Aid to education and the subsequent enactment of the National Defense Education Act in 1958 would be helpful to the reader as well as to the writer. Such a background is, therefore, a facet of the report. To meet current needs for National defense and public welfare, the NDEA Institute approach was introduced. Literature evaluating this educational device has probably not yet been published. The findings presented in Chapter IV are, however, a result of this legislation; therefore the participation of the federal government in education is important to this report.

Five devices were used for evaluating the Institute. The writer interviewed each enrollee and each staff member using an interview schedule. Enrollees were interviewed during the last 2 weeks of the Institute; Staff members were interviewed on the last day after the formal closing of the Institute. Enrollees were also asked to write responses on an anonymous evaluation sheet at the closing session. The group of twenty-six members was divided into four groups, each of which was given a specific phase of the Institute to evaluate. Finally, a brief evaluation questionnaire was mailed to the guest consultants shortly after the close of the Institute.

SUMMARY: A summary of the responses to the various evaluation devices, in general, indicated that the Institute was worthwhile. The outstanding features included the practicum, the consultants, and the exchange of ideas in informal settings with all participants. The small-group activities provided these opportunities.

The pressure of time with a very heavy schedule was one of the major weaknesses expressed by the staff, the consultants, and the enrollees.

The Institute approach, or the unit system of teaching, was, in general, considered highly desirable as a device for learning and then integrating and coordinating the subject-matter by practical application.

THESIS COMMITTEE: Dr. Albert H. Krueger, Chairman; Dr. Richard Nash
DATE OF COMPLETION: July 1963

A FIVE-YEAR STUDY OF THE EARLY WITHDRAWALS FROM THE WEST ST. PAUL PUBLIC SCHOOL FOR THE YEARS 1957-1962

by Thelma Clarice Delmont

PROBLEM: It was the purpose of the study (1) to find the ratio of dropouts to graduates completing their secondary grades (9-12); (2) to learn the present occupation of the dropout and to compare this with the job he had immediately after leaving school; (3) to show the relationship between graduates and dropouts in regard to such factors as grade retardation, sex, scholastic achievement, scores on intelligence tests, location of residence within the district, major work category of the principal wage earner of the family, co-curricular activities, and transfers and new students to the school district; and (4) to present these findings as revealed through the questionnaire study and the students' records.

PROCEDURE: Students' cumulative folders and permanent record cards were studied carefully to procure essential information; then questionnaires were mailed to 185 dropouts. Subsequent letters were often sent and the follow-up was by telephone. The information from these sources was compiled on standard forms.

FINDINGS: There were 166 respondents to the questionnaire (122 males and 63 females). The reason for withdrawal may be considered to be a combination of factors interplaying, but the stated primary reason for this study was "work." The highest incidence of withdrawal for this period occurred in Grades 10 (30.27%) and 11 (32.97%). The dropout rate ranged from 1.80 per cent to 5.83 per cent, with the highest incidence in the 1959-60 school year. In the dropout group the largest number had intelligence scores in the 100-109 range; while the graduates had the largest number of students in the 110-119 range. Over 50 per cent of the total number of dropouts consisted of student transfers. Only three graduates had been retarded one grade level; eighty-four of the dropouts had been retarded one or more grades. The principal wage earner of graduating seniors was listed in the professional and managerial class. Among the dropout group, the semi-skilled classification was listed as the principal category of work. Of the graduates, 20 per cent had not participated in one co-curricular activity; 85 per cent of the dropouts had not. Residence in the district seemed to be an insignificant factor. Eighty-nine of the 185 dropouts had changed employment at least once since withdrawal, twenty-five of them had received high school diplomas or were working toward a diploma. There were 5,043 students enrolled in Grades 9-12 for this five-year period; and, of this number, there were 996 graduating seniors.

SUMMARY AND CONCLUSIONS: The experience of first-hand contact with most of the dropouts proved most rewarding. The writer had an opportunity to receive data that locally, as well as nationally, has been a problem of great concern—that related to employment and to the early-leaver. The federal government, expressing concern over the 6.1 millions unemployed at present, a large portion of whom are youth 14-21 years of age, and who may be dropouts, has been joined by state and local agencies to attempt to initiate plans to aid youth. Because the dropout often lacks the basic education needed to learn special skills, he may become not only unemployed but unemployable. With increased use of automation, plus the need for skilled technicians in many fields, the demand for trainable workers may be considered a matter of concern. How to cope with these situations may remain one of the problems of our time.

THESIS COMMITTEE: Dr. M. E. Van Nostrand, Chairman; Dr. Paul Ingwell
DATE OF COMPLETION: July 1963

AN EVALUATION OF THE SUPERVISED PRACTICUM IN COUNSELING CONDUCTED AT ST. CLOUD STATE COLLEGE, DURING THE SECOND SUMMER SESSION, 1960

by Douglas C. Grund

PROBLEM: This study was made in an attempt to evaluate, in terms of satisfaction to the counselee, the first supervised practicum in counseling held at St. Cloud State College.

PROCEDURE: The practicum was an attempt to duplicate, in a training situation, the counseling practices conducted in secondary schools. Information from a review of literature on evaluation studies of guidance programs was the guide in the formulation of a questionnaire. Seventy-nine volunteer student counsees from several central Minnesota high schools took part in the summer counseling practicum and contributed information for the evaluation through 100 per cent participation in the follow-up study.

FINDINGS: Following are some of the findings:

1. Girls were less satisfied with features of the counseling room such as size, color and lightness than were the boys.

2. Almost nine of ten counsees felt that the presence of the microphone made no difference.

3. The one-way mirror was a distraction to one out of four girls and was the one factor, more than any other, which prevented all counsees from being completely at ease.

4. Almost one in every five counsees felt that noises occurring outside the counseling room were distracting.

5. The sex of the counselor was not a factor in terms of satisfaction with the counseling received.

6. There was a strong feeling expressed by the counsees that they were at ease with the counselor, that the counselor's interest in the counselee was satisfactory, that there was sufficient time allowed to express their problems and feelings, and that the counselor was sensitive to their particular problem.

7. Over 93 per cent of the counsees were satisfied with the counselor's knowledge of counseling technique.

8. Twenty-one counsees expected more vocational and educational testing than they received.

9. There was strong feeling of satisfaction regarding the counselor's use of vocational materials.

10. Thirteen counsees felt that they would prefer another counselor at a second opportunity while eleven counsees felt that they did not receive enough total counseling time.

11. Seventy-five of the seventy-nine counsees felt satisfied that the time spent in the practicum was worthwhile.

SUMMARY AND CONCLUSIONS: The summer counseling practicum is apparently a satisfactory experience to volunteer counsees and seemed to be beneficial to most of them; the fact that the counselors were trainees did not seem to affect the evaluations. The counseling practicum cannot easily duplicate the practices of the high school situation, but the methods used to put the counsees at ease in a counseling center apparently were successful. The physical facilities left much to be desired. Most of the counsees were satisfied that the counselors were qualified to cope with their individual problems and expressed their feelings in a positive manner. In this respect, the practicum program appeared to meet the objectives of guidance and counseling as perceived by the counsees.

THESIS COMMITTEE: Dr. Albert Krueger, Chairman; Dr. M. E. Van Nostrand
DATE OF COMPLETION: July 1963

A STUDY OF THE RELATIONSHIP OF IQ SCORES TO THE GRADES AND CURRICULUM CHOICES AMONG THE STUDENTS OF LITTLE FALLS HIGH SCHOOL

by Edwin A. Gustafson

PROBLEM: It was the purpose of this study (1) to determine if there is any close relationship between scores on the Otis Test of Mental Ability and school marks achieved by students in the Little Falls Senior High School; (2) to determine if the students in the Little Falls Senior High School, as a group, follow any particular pattern of curriculum choice according to ability, and also, if the boys and girls of like ability differ in their pattern of curriculum choice.

PROCEDURE: A survey of literature was made of past studies pertaining to the relation between ability and achievement in school work, and also of previous studies concerning the pattern of curriculum choice of the student.

The data for the study were secured from records at the Little Falls Senior High School. Lists were made of the students in the school for the 1961-62 school year together with lists of the subjects they had completed, and the grades they had earned in senior high school by the end of the 1961-62 school year. The students' IQ scores from the Otis Quick Scoring Test of Mental Ability were also listed. Scatter diagrams were made so that the correlations between the students' Otis IQ scores and the grades earned by the students could be determined. To study the relationship between ability and curriculum choice, tables were constructed which permitted the students' subjects and IQ levels to be listed.

FINDINGS: The results of the first part of the study indicated that the correlation coefficients between the IQ scores obtained from the Otis Test of Mental Ability and marks achieved are rather high in the Little Falls Senior High School.

In the second part of the study, the data indicated that students in the Little Falls Senior High School with ability above the mean of the Otis IQ score tend to choose college preparatory subjects. The non-college preparatory subjects are chosen by students of high and low ability in nearly equal numbers. Boys of higher ability tended to choose college preparatory subjects more often than girls of higher ability.

SUMMARY AND CONCLUSIONS: The data indicates that the Otis Test of Mental Ability is a useful instrument for predicting grades in the Little Falls Senior High School. The correlations obtained between the Otis Test and grades earned by the students in the senior high school during the 1959-60, 1960-61, and 1961-62 school years are higher than the usual correlation coefficients between these two variables.

The choice of elective subjects in the Little Falls Senior High School appears to be related to ability since students of higher ability tend to choose college preparatory subjects. Although both boys and girls of higher ability tend to choose college preparatory subjects, boys chose them more often than girls in the groups studied. There would appear to be justification in continuing to designate certain courses as being college preparatory.

THESIS COMMITTEE: Dr. Richard Nash, Chairman; Dr. Paul Ingwell

DATE OF COMPLETION: July 1963

AN INVESTIGATION INTO THE TEACHING OF OCCUPATIONAL UNITS IN SELECTED MINNESOTA JUNIOR HIGH SCHOOLS

by John Heidgerken

PROBLEM: The primary purposes of this study were to (1) determine the number of selected junior high schools in Minnesota that teach occupational units, (2) determine the grade and course in which the unit is taught, (3) determine the length of a typical occupational unit, (4) determine the role of

the counselor in developing and teaching of occupational units, (5) determine what methods are commonly used in presenting occupational information by teachers and counselors in selected Minnesota Junior High Schools.

PROCEDURE: A review of literature was made to establish perspective and to study the research pertaining to the teaching of occupational units in junior high schools today.

Other data were secured through the use of the questionnaire procedures. The study was limited to schools with enrollments between 200-800 students. The eight congressional districts served as a means of getting a random sample throughout the state of Minnesota. Five schools from each of the eight congressional districts brought the number of schools, to be used in this study, to forty. A questionnaire was sent to the forty selected junior high schools and 100 per cent of the schools responded.

FINDINGS: Following are some of the findings of this study.

1. Ninety five per cent of the schools taught an occupational unit in junior high school.

2. In fifty-two per cent of the cases the unit is taught by a teacher and in thirty-nine per cent of the cases it is presented by a teacher and counselor working together.

3. In forty-three per cent of the cases, the teacher in charge of presenting this information on occupations has had no formal training for this task.

4. In eighty-nine per cent of the cases, where the teacher presents the occupational information unit, they receive help from the counselor in preparing it.

5. Most teachers of occupational information use a wide variety of methods in presenting this information.

6. The length of a typical unit in Minnesota Junior High Schools varies the two to twelve weeks.

7. Most occupational units taught in Minnesota Junior High Schools include instruction on educational and self appraisal information.

8. In ninety per cent of the schools the occupational unit is included in the ninth grade social studies class.

9. In sixty-four per cent of the schools surveyed the students are given an examination over the material presented in the unit.

10. The schools not teaching an occupational unit at the present time plan to initiate one in the near future.

11. In all junior high schools surveyed, the students have access to occupational literature of various types.

SUMMARY AND CONCLUSIONS: The results of this study seem to point out that most schools feel the need for teaching a unit on occupations in junior high school. It also seems apparent that teachers and counselors are including an increasing amount of information in regard to self analysis and educational planning for senior high school. There also seems to be more emphasis on occupational exploration than on choosing a particular occupation at this age level.

The results of this study also seem to point out that there is a tremendous amount of variation in the teaching of occupational units in Minnesota Junior High Schools. There seems to be no definite criteria set up for counselors to follow in developing occupational units for use in junior high schools. Most counselors develop units according to the needs of the school or according to what they feel is significant. It also seems that many counselors received very little preparation for this task in their graduate training program. It would be of benefit to teachers and counselors if a standard unit on occupational information for junior high schools would be developed for them to use as a guide in preparing and presenting units in occupational information.

THESIS COMMITTEE: Dr. Frederick Markwardt, Jr., Chairman; Dr. Jack Jones
DATE OF COMPLETION: November 1964

A STUDY OF GUIDANCE PROGRAMS IN SELECTED MINNESOTA JUNIOR HIGH SCHOOLS

by Paul J. Heine

PROBLEM: The overall purpose of this paper was to gain a better insight into the total picture of guidance in selected junior high schools in the state of Minnesota and to organize the criteria of a "model" guidance program for a junior high school.

METHOD AND PROCEDURE: As an initial step, various source materials were used in planning this study such as textbooks, educational and commercial periodicals, documents, and vertical files. Because of the limited number of textbooks that deal specifically with guidance at the junior high school level, most of the research information was found in periodicals and State Department Booklets.

The second phase of this study consisted of obtaining information by conducting personal interviews with the counselors of twelve junior high schools, thus gaining more insight into the topics being considered. After arrangements for the interview were completed a questionnaire was sent to the counselor of the school previous to the time of the interview. Each interview lasted from one to three hours and included a tour of the school building with special emphasis on the administrative offices, the guidance department facilities, the school library, and ninth grade social studies' classrooms.

SUMMARY AND CONCLUSIONS: In comparing guidance programs, it would appear that the Minnesota junior high school guidance programs are comparatively as extensive as the guidance programs in the senior high schools. This was especially true of the group guidance activities such as the orientation program, the educational and occupational unit, and the home room.

The requirements for counselor certification in Minnesota effective in September, 1963, have apparently brought about an increase in the number of counselors certified and an improvement in the guidance department facilities and the equipment available to the counselor in the junior high school. The recommended student-counselor ratios set by educators have caused a decrease in the counselee load in most schools.

Another sign that counseling and guidance are taking on importance in the junior high was indicated by the fact that the most recently constructed school buildings had more rooms set aside for counseling, and in many schools a separate area for guidance was available. Where new schools were not available, extensive remodeling was found to have been done or was being planned in the near future.

The writer feels that the growing recognition of the junior high school as a vital force in our education system is one of the important trends of education, and that more educators are becoming concerned with the role of the guidance department and its personnel. The overall purpose of this study was to gain a better insight into the total picture of guidance in selected junior high schools in the state of Minnesota, and from the summary and conclusions drawn it would appear that this overall purpose was fulfilled.

THESIS COMMITTEE: Dr. Albert Krueger, Chairman; Dr. A. H. Schelske
DATE OF COMPLETION: July 1963

A STUDY OF THE USE OF STUDENT STANDARDIZED TEST DATA BY ST. CLOUD STATE COLLEGE FACULTY FRESHMEN ADVISORS

by Patricia Hoffman

PROBLEM: It was the purpose of this study to determine what use, if any, is made of the student standardized test information which is given to faculty freshmen advisors.

PROCEDURE: A questionnaire was compiled as the basis for a personal interview with each of the sixty-one 1962-63 advisors. The questionnaire was designed to gather information about (1) the number of advisors using the freshmen standardized test information, (2) the ways in which the advisor used the standardized test information, (3) the types of advisees with whom the advisor had used the test information, (4) the training that the advisors had in using the test information, and (5) for those who were not using the test information, reasons why they were not.

FINDINGS: Most of the faculty freshmen advisors were "using" the standardized test data, but only twenty of the sixty-one advisors were using it with all advisees. Most frequent use of the test data was with students having academic difficulties. Advisors did little score interpretation to the advisees, but most advisors were willing to attempt a general interpretation if the advisees requested it. Slightly over one-half of the advisors had some formal training in the use of tests or test interpretation. The reasons given most frequently for failing to use the standardized test data were: (1) lack of knowledge as to the use and meaning of the test data, (2) lack of confidence in the tests given to the students, (3) lack of time to work with the large number of assigned advisees, and (4) failure to accept use of the data as part of their duties.

SUMMARY AND CONCLUSIONS: The freshmen standardized test data were not being used properly by most advisors at St. Cloud State College. Advisors are assigned arbitrarily and these individuals are not always interested in doing a thorough job of advising. The advisors who did attempt to use the standardized test data in the accepted ways were hampered by heavy teaching and advising loads and, in most cases, by little or no formal training in the area. There is little understanding on the part of many of the advisors as to possible uses of the test data. Prejudice exists which, in some cases, caused advisors to assume that the test data are without value. Although the data were not used as extensively as would be desirable, all but two advisors were finding the data of assistance with at least some of their advisees.

THESIS COMMITTEE: Dr. Paul Ingwell, Chairman; Dr. Victor Lohmann
DATE OF COMPLETION: May 1964

FUTURE ROLE OF WOMEN IN THE LABOR FORCE

by Coral C. Hook

PROBLEM: It was the purpose of this study to (1) compare the present occupational status of women with that of the near past; and (2) explore the future role of women in our labor force.

PROCEDURE: For most part library type research was conducted and the material has been gathered over a period of two years. The resources of St. Cloud State College Library, the Elmira College Library, the Elmira City Library, the Bradford County Library, and the United States Government Printing Office were used to gather the material.

Of particular value were the pamphlets, books and leaflets published by the United States Government Printing Office which provided the vital statistics used in this study.

FINDINGS: Developments which have occurred in the women's labor force during the last forty years have been significant. One of the most important developments has been the general acceptance of women as an integral and permanent part of our working population.

Authorities in the manpower field have estimated that the average young girl of today may work, during various intermittent periods, for perhaps twenty-five years of her life.

Age and marital status help determine whether or not a woman is likely to work outside the home and what kind of job she is likely to hold. So do the level of her education, her economic status, her race, and her place of residence.

IMPLICATIONS AND RECOMMENDATIONS: It seems likely that the vast majority of women will have some experience with paid employment in the course of their lives. During the coming decade, the economy will probably make it necessary for at least two out of every five women to be in the labor force.

Educators must be ready to meet the problem of educating both the young girl and the older woman who will be returning to work after her children are in school.

Employers need to review their hiring, assignment, training and promotion practices in light of the changes which have taken place in the education, skill, age composition, and work interests of women in the labor force, in order to insure that they make optional use of their women employees.

The government should continue to support the Women's Bureau which has the objective of advancing the welfare and status of women both as workers and citizens.

There is need for more and better prepared counselors. Counselors need a good understanding of the occupational roles women have played in the past and are likely to play in the future.

The above implications suggest recommendations for research in the following areas:

1. The effect women's employment has on the other aspects of their lives.
2. The effect women's employment has on educational and training institutions.
3. The need for employers to understand women's peculiar work problems.
4. The effect that government policies have on working women.
5. The need for more effective guidance on the occupational roles women have played in the past and are likely to play in the future.

THESIS COMMITTEE: Dr. Frederick Markwardt, Jr., Chairman; Dr. Herbert Lohrman

DATE OF COMPLETION: October 1964.

A STUDY OF THE GUIDANCE SERVICES IN THE SMALL HIGH SCHOOLS OF MINNESOTA

by Willard Kalash

PROBLEM: The purpose of the study was to determine to what extent guidance services were being offered to the students in the small high schools of Minnesota.

PROCEDURE: Questionnaires were sent to sixty randomly selected Minnesota high schools. The responses to the questionnaires from fifty of the schools were used in the study. Interviews with personnel from ten of the fifty schools were held as a check on the validity of the answers to the questionnaires.

FINDINGS: The study revealed that 56 per cent of the small high schools had either full-time or part-time counselors.

All of the schools provided counseling for students with educational and vocational problems, while 78 per cent offered counseling to students with personal problems.

Standardized intelligence and achievement tests were used by nearly all of the schools, but only 28 per cent administered pupil-problem inventories.

Up-to-date educational and vocational information was available to the students in all of the schools, and 84 per cent of the schools offered units on occupations.

Ninety per cent of the schools offered curricular placement help for the students, while 76 percent offered extra-class placement.

An important finding, resulting from the interviews, was that the small high school administrators were quite confused about the role of guidance and counseling in their schools.

SUMMARY AND CONCLUSIONS: The small high schools of Minnesota are offering some guidance services to their students, but more services should be available. The schools that have counselors offer more guidance services than the schools that do not have counselors. The guidance services that are offered the least are those requiring highly trained counselors to utilize these services properly.

The administrators of the small high schools should be made more aware of the values of a good guidance program

Counselor preparing institutions should be more selective in screening counselor candidates.

Counselors need to define their role and position in the small high school in order to be more effective.

THESIS COMMITTEE: Dr. Frank Slobetz, Chairman, Dr. Richard Nash
DATE OF COMPLETION: August 1963

A STUDY TO DETERMINE THE EXISTENCE OF ACADEMIC DISHONESTY AT ST. CLOUD STATE COLLEGE

by David Joseph Lesar

PROBLEM: The purpose of this study was (1) to examine responses of St. Cloud State College students concerning the degree of their personal involvement and knowledge of cheating on this campus, and (2) to judge, on the basis of the findings, whether some practices and certain courses of study promote cheating. (3) The third purpose was to suggest, on the basis of the findings, ways and means which might reduce the incidence of cheating.

PROCEDURE: A review of the literature was made to establish perspective and to assist in the formulation of the questionnaire used in the study. A random sample of 242 upper class students was selected on the assumption that this group would be more familiar with possible cheating behavior. Questionnaires were mailed to all students in the sample group, and replies were received from 158 students. A personal follow-up was also necessary to secure an adequate number of respondents.

After receiving the completed questionnaire the respondents were divided into various groups according to high school rank, size of high school, sex, student residence, grade point average, and major fields of study. A chi square test of significance was computed to determine differences in the amount of cheating between groups. Analysis of other information on the questionnaire was also completed.

FINDINGS: Following are some of the findings of this study.

(1) Males cheated to a greater extent than females. The difference was statistically significant at the .05 level of confidence.

(2) Student residence, size of high school, major field of study, high school rank, and grade point averages showed no statistically significant relationship to the amount of cheating engaged in by respondents.

(3) Sixty-eight per cent of the respondents have cheated while in college.

(4) Disciplinary action taken against students who cheated was unknown to seventy-four per cent of the respondents.

(5) A definite statement of policy and penalties was favored by seventy-five per cent of the respondents.

(6) Joint action by students and administration would be necessary to solve a cheating problem according to sixty-six per cent of the respondents.

(7) Sixty-three per cent of the respondents felt that a special committee should handle cheating problems.

(8) An honor system would probably not work at St. Cloud State College according to sixty-five per cent of the respondents.

(9) Confidential information in the form of tests and term papers are generally available for a minority of respondents.

(10) A majority of respondents felt that many instructors assigned busy work and that they could have prevented a great deal of cheating in the classroom.

CONCLUSIONS AND RECOMMENDATIONS: The results of this study indicate that cheating is quite extensively practiced on the St. Cloud State College campus. Students, administration, and instructors should be more alert to their contributions to cheating behavior as well as the methods of prevention.

1. A special committee of students, faculty, and administration should be formed to study the cheating problem.

2. Further research concerning faculty contributions to cheating, as well as their views toward cheating, should be conducted.

3. General education courses and the practice of re-using tests should receive immediate attention because of the large amount of cheating reported.

4. A statement of policies and penalties for cheating should be issued by the college administration.

5. Instructors and students should devote time to discussions of faculty and student responsibilities toward cheating.

6. Further research is needed to answer the question of "why students cheat?"

THESIS COMMITTEE: Dr. Albert Luker, Chairman; Dr. Frank Slobetz

DATE OF COMPLETION: July 1964

A STUDY OF ORIENTATION PROCEDURES IN SELECTED JUNIOR HIGH SCHOOLS IN MINNESOTA

by Maxine G. Ludwig

PROBLEM: It was the purpose of this study to (1) study orientation procedures in selected Minnesota junior high schools in order to ascertain current practices as they relate to the entry of rural eighth grade students into the junior high school and to (2) use the findings of the survey in developing a practical and effective program of orientation for eighth grade students who enter the Central Junior High School in Alexandria, Minnesota.

PROCEDURE: The data for this study were secured from replies to a questionnaire sent to thirty-two selected junior high schools in Minnesota during the school year 1962-1963. Questions were asked relative to the administration of the program, pre-orientation practices, orientation activities, and the evaluation of the program. Interpretation of the data was made according to the number of responses on individual items in the questionnaire. After the replies were tabulated and analyzed, an examination and study was made of the data as it related to the review of the literature. The conclusions were utilized as a base in the evaluation and reorganization of the orientation program as it existed in Central Junior High School.

FINDINGS: The findings of this study are as follows:

A. The orientation program is an integral part of the philosophy and practices of a junior high school and is basic in the articulation process.

B. The counselor has the key role in the direction of the program but should utilize the contributions of the staff and students.

C. Orientation programs are organized to work with large groups.

D. The amount of time allowed for the initial orientation programs needs closer scrutiny by principals and planning committees.

E. Administrators would prefer to hold the orientation visit just prior to the opening of school.

F. The junior high school should provide and encourage the inclusion of a continuous program of orientation.

G. Administrators should be more cognizant of the role of parents in the orientation process.

H. There must be continuous evaluation of the orientation program by staff, students and parents.

SUMMARY AND CONCLUSIONS: The survey findings have shown that there is a rather similar pattern in the general procedures used in the orientation programs in selected junior high schools in Minnesota. Pre-orientation programs, orientation visits to the junior high school, continuous programs during the school year and evaluation techniques are component parts of the total program. An effective orientation program appears to be a complex unit of the school, one designed to facilitate the entry of the new student as he moves from the elementary school to the junior high school.

THESIS COMMITTEE: Dr. Albert Krueger, Chairman; Dr. M. E. Van Nostrand
DATE OF COMPLETION: July 1963

THE PRINCIPLES INVOLVED IN THE ORGANIZATION AND ADMINISTRATION OF A MODEL GUIDANCE PROGRAM FOR OSSEO PUBLIC HIGH SCHOOL

by James Frederick Mendenhall

PROBLEM: The purpose of this project was to determine the kind of a guidance program that might benefit students, faculty, and administrators of Osseo Public High School.

PROCEDURES: There were seven phases to the research for this project. The first four phases involved a research on literature concerning guidance terminology in vogue since 1932 to the present time; (B) the need for guidance programs as expressed by the authors of five guidance text books between 1947 and 1959; (C) descriptions of the kinds of guidance services a dozen different authors of guidance texts emphasized in their writings between 1947 and 1961; and (D) functional and operational aspects of guidance programs as stressed by thirteen authors of guidance literature between 1947 and 1961.

The preceding information was gathered to ascertain guidance terminology, values of the guidance program, and kinds of services appropriate to guidance programs.

In the last three phases of the project the results of questionnaires administered to faculty members, students, and 1962 graduates of Osseo Public High School were utilized to determine their reactions to the guidance program of that school.

The results of these seven phases of research were considered in the development of a model guidance program for Osseo Public High School. This program included: (1) organization of the guidance program, (2) guidance services, and (3) staff functions of the guidance program.

FINDINGS: The results of the three surveys seemed to indicate that while the faculty, student-body, and graduates benefited from the present guidance program at Osseo Public High School there were several areas that need to be re-evaluated. These were:

(1) Faculty members felt that in general there needed to be more communication between counselors and teachers in developing various guidance functions.

(2) Thirty-eight percent of the student-body indicated they wanted more assistance with vocational planning.

(3) Eighteen percent of those students requesting conferences during the 1962-63 school year were not scheduled for one.

(4) A majority of the student-body felt that conferences with a counselor should be longer and more frequent.

(5) Only 10 percent of the survey group indicated they made use of guidance literature housed in the library.

(6) Students indicated they would like a more effective method of arranging conferences with counselors.

(7) Graduates indicated a desire for more assistance with educational and vocational planning.

(8) Graduates reported that they would have liked to have been able to spend more time with the counselor discussing test results.

SUMMARY: The purpose of this project was to determine the kind of guidance program that might benefit students of Osseo Public High School. The general plan of the project included a review of literature on guidance programming. This served as the background for theoretical aspects of the Osseo guidance program. The practical aspects of guidance programming were viewed through responses of Osseo Public High School faculty and students for the school year ending in 1963, and the graduates of the class of 1962. The preceding two areas were used as a basis for developing a model guidance program for Osseo Public High School.

THESIS COMMITTEE: Dr. Frederick Markwardt, Jr., Chairman; Dr. Vernon Mork

DATE OF COMPLETION: November 1963

A FOLLOW-UP STUDY: 1962 GUIDANCE AND COUNSELING INSTITUTE ST. CLOUD STATE COLLEGE, ST. CLOUD, MINNESOTA

by Russell Glenn Moe

PROBLEM: It was the purpose of this study to: (1) secure evaluations from the Institute enrollees regarding the effectiveness of the Institute, (2) obtain their opinions about change in attitude or technique due to the Institute, and (3) try to summarize these responses into material that would be useful for the author of this study and other people interested in the St. Cloud State College Guidance and Counseling Institute.

PROCEDURE: A survey had been conducted while the Institute was in session by another enrollee. Results of this survey were used to help formulate questions to be asked of the same Institute enrollees after they had completed the session and had been actively counseling for about one school year. The follow-up questions concerned change in attitude or technique that occurred due to the Institute.

In each area of class work, or activity, the enrollee was asked to make a rating of "excellent," "good," "fair," or "poor." He was also encouraged to write a comment concerning application of this activity. Questionnaires were sent to the twenty-six enrollees but only twenty-two responded.

FINDINGS: 1. Respondents consistently rated the activities in the two upper rating categories, but individual comments were needed to specify how the new technique or attitude had been applied.

2. Concerning the two classroom situations, 75 per cent of the ratings were in the two top classifications.

3. Concerning the guest consultants Dr. Rothney, Dr. Mowrer, and Dr. Lohmann, 80 per cent of the ratings were in the upper categories.

4. 100 per cent of the respondents placed the Career Day in the upper ratings.

5. 86 per cent placed Related Counseling Activities, involving role playing, in the two top ratings.

6. 77 per cent felt they had used material gained from their individual research and term paper.

7. Comments regarding "most valuable experiences" centered around role playing sessions, small groups, exchange of ideas, the class in "Personality Theories," and observing the Practicum.

8. Comments concerning criticism centered around not having a Practicum, coursework too elementary, repeat material, too much paper work, not applicable to junior high counseling, and interesting but not practical sessions.

SUMMARY AND CONCLUSIONS: It was determined that a majority of the classes and procedures in the Institute had a favorable effect on the enrollees. Combining the results of the first nine questions produced a total of 41 per cent "excellent" ratings and 82 per cent of the ratings in the two top categories. The respondents added comments regarding individual ways in which they had applied this in their situation.

To produce a more effective Institute in the future, the following items could be considered: (1) select enrollees with a more similar background of coursework, (2) select enrollees with more similar counseling positions, (3) select classes or curriculum which will more approximately meet the needs of the enrollees, (4) provide actual counseling experience with high school students, (5) provide activities or projects where enrollees can participate, and (6) require less writing of formal reports on individual research and provide more opportunity to share the knowledge gained from this research.

THESIS COMMITTEE: Dr. Albert Luker, Chairman; Dr. Frederick Markwardt, Jr.

DATE OF COMPLETION: February 1964

A STUDY TO DETERMINE THE DEGREE OF EMPLOYEE SATISFACTION WITH REGARD TO LEVEL OF TRAINING AS EXPRESSED BY GRADUATES FROM SELECTED MINNESOTA SCHOOLS OF MEDICAL TECHNOLOGY

by Alvin S. Okeson

PROBLEM: It was the purpose of this study to determine (1) the degree of satisfaction of graduates from selected Minnesota schools of medical technology not approved by the American Medical Association, and (2) if any dissatisfaction exists in either of the two groups and, if so, the reason for the dissatisfaction.

PROCEDURE: Persons who had recently graduated from Minnesota schools of medical technology provided the necessary evaluative data. Those technologists who were employed in Minnesota were selected to constitute the sample group. The size of the sample group to whom the questionnaires were sent totaled two hundred twenty-seven. The number of approved school graduates returning questionnaires totaled seventy-seven, for a sixty-five per cent response. The number of accredited school graduates returning questionnaires totaled forty-one, for a forty-five per cent response.

The .05 degree of significance was used in making percentage comparisons between the two groups.

FINDINGS: The study revealed that most graduates from both approved and accredited schools of medical technology in Minnesota felt their training gave them good preparation for their work as a medical technologist. The accredited school graduates who indicated dissatisfaction with their training program listed most frequently the lack of internship training as a part of their total training program.

It was discovered that the approved school graduates may expect to earn a larger salary than the accredited school graduates. In this study the approved school graduate received a mean monthly salary of one hundred thirty-eight dollars more per month than the accredited school graduate.

There exists some degree of variation as to the percentage of time spent performing various laboratory tests between the two groups of medical technologists surveyed in this study. Accredited school graduates, as a group, spent a greater percentage of their time performing X-ray duties and urinalysis tests than the total group of approved school graduates. Approved school graduates, as a group, spent a greater percentage of their time performing chemistry tests.

Most graduates from both groups were satisfied with their present position of employment. Approved school graduates who indicated dissatisfaction listed such things as insufficient salary and the lack of opportunity for advancement. Accredited school graduates who indicated dissatisfaction with their present position listed such things as insufficient salary and the lack of opportunity to perform some of the more complicated laboratory tests.

Many approved school graduates felt that their total training program was lacking in that there was not enough opportunity to pursue courses in areas other than their specialty. Many accredited school graduates indicated that if they were beginning to study for a career in medical technology they would enroll in a four-year program.

SUMMARY AND CONCLUSIONS: The study seems to point out that many accredited school graduates felt the training they received was satisfactory, but the problem seems to be that there was not enough of it, which would seem to re-emphasize the need for an intensive training program. It also seems that accredited schools of medical technology should place a greater emphasis on internship training as a required part of their total training program.

Because many graduates indicated their program was not broad enough in other areas of discipline, it might prove helpful if more opportunity was available for study in the social sciences, humanities and general education.

THESIS COMMITTEE: Dr. Lars Peterson, Chairman; Dr. Frederick Markwardt, Jr.

DATE OF COMPLETION: August 1964

EMPLOYMENT CONFERENCE AT ST. CLOUD STATE COLLEGE

by Donald Palkovich

PROBLEM: To organize, administer, and evaluate a Career and Employment Conference Pilot Study at St. Cloud State College. It was the purpose of this pilot study to: (1) bring business representatives to the St. Cloud State College Campus to facilitate a better understanding of the fields that the students were preparing to enter, (2) to have the students make employment contacts at the Conference with the companies represented, and (3) to have the representatives not only look for potential employees, but also to review qualifications and job requirements of the specific companies they represented.

PROCEDURE: Representatives from several businesses in the St. Cloud and Twin City areas were asked to participate in this Employment Conference for the purpose of holding conferences with interested students in Bachelor of Arts and Associate of Arts programs at St. Cloud State College. A General Session was held by a panel of three for the purpose of discussing important details about the proper methods of finding a job, conducting oneself at an interview, and things employers look for. After the General Session, the representatives held individual conferences with the students who were interested in a particular occupation represented by the individual companies. Twelve companies were represented at the Employment Conference and 200 students participated.

In an attempt to evaluate the Employment Conference each student and business representative was given a questionnaire to fill out. These questionnaires were handed in at the close of the Employment Conference. The main purpose of this evaluation was to determine the value of an activity of this type as an annual event.

FINDINGS: Following are some findings of this pilot project:

1. All business representatives felt that the Employment Conference was a worthwhile investment for their companies.
2. All representatives and 98.80 of the students felt that a Conference of this type would be of value for the future.
3. The topics presented at the General Session were valuable.
4. Five students stated that they would be applying for jobs at specific companies.
5. Three company representatives stated that they were interested in several students as potential employees of their companies.
6. Two representatives stated that there was a possibility of employment for several students.
7. Many excellent suggestions for improving any future conferences of this type were given by both the business representatives and the students.

SUMMARY AND CONCLUSIONS: This Pilot Study was termed a success by almost all the participating group. Most of the participants thought this Conference should be held every year and emphasized this on their questionnaires.

The following suggestions seemed to indicate the interest and possible need for future Employment Conferences:

1. Why not have a course in this field?
2. Panel discussion should be longer.
3. More detail should be given by representatives, and
4. Invite all the students to attend.

Most of the suggestions given seemed to indicate that the students and business representatives alike would prefer any future Employment Conferences on even a larger scale.

As a result of this pilot study, St. Cloud State College had for a second time a "Career Day" on campus the year following the Employment Conference. It is hoped that these activities can continue.

THESIS COMMITTEE: Dr. Richard Nash, Chairman; Dr. Charles Emery

DATE OF COMPLETION: August 1963

A STUDY OF THE RELATIONSHIPS BETWEEN TYPES OF HIGH SCHOOL DIPLOMAS, SCHOLASTIC APTITUDE, AND COLLEGE SUCCESS

by Edward J. Roos

PROBLEM: It was the purpose of this study to determine relationships between (1) scholastic aptitude, (2) types of diplomas received by 1963 St. Cloud Technical High School graduates, and (3) success in college as determined by first year honor point ratios at St. Cloud State College, St. Cloud, Minnesota.

PROCEDURE: From the St. Cloud Technical High School graduating list of 1963 it was found, by checking transcripts sent to colleges and college records, that fifty-seven students had enrolled and completed a full year at St. Cloud State College in 1963-64. Their MSAT raw scores and their cumulative first year college honor point ratios were secured from college records.

Seventy-six students from a random sample of one hundred non-Tech 1963 graduates who attended St. Cloud State College for a full year in 1963-64 were included in this study. The MSAT raw scores and first year college honor point ratios for these students were also available from college records.

The St. Cloud Technical High School graduates and the non-Tech graduates were organized into the following groups: thirty Tech academic graduates, eighteen Tech general graduates, fifty-seven all-Tech graduates, and seventy-six non-Tech graduates.

FINDINGS: A study of MSAT raw scores for the four groups revealed that mean differences were significant at the .05 level for the following groups: Tech academic over Tech general, Tech academic over non-Tech, and all-Tech over non-Tech. Between Tech general and non-Tech the difference was not significant.

A study of honor point ratios revealed significant differences at the .05 level for the following pairing of groups: Tech academic over Tech general, Tech academic over non-Tech. Between Tech general and non-Tech and between all-Tech and non-Tech the differences were not significant.

Correlations between MSAT raw scores and first year college honor point ratios were significant at the .05 level for each of the four groups.

Analysis of covariance of MSAT raw scores and first year college honor ratios for three groups (Tech academic, Tech general, and non-Tech) revealed that, when aptitude as measured by MSAT was held constant, there were no significant differences among the three diploma groups.

CONCLUSIONS: Within the limitations of this study, the following generalizations were drawn:

1. As a group, recipients of academic diplomas were superior in scholastic aptitude and were superior in first year honor point ratios earned at St. Cloud State College in comparison with the total Technical High School group and in comparison with other diploma groups cited in this study.

2. When the aptitude factor was held constant, type of diploma had no bearing on college success as determined by grades earned at the end of the first year of college.

THESIS COMMITTEE: Dr. Frank Slobetz, Chairman; Dr. Dale Patton

DATE OF COMPLETION: June 1965

A STUDY IN PREDICTING STUDENT SUCCESS IN PLANE GEOMETRY CLASSES OF A MINNEAPOLIS SENIOR HIGH SCHOOL

by Robert James Rutt

PROBLEM: It was the purpose of this study to present expectancy tables based on results of (1) the Verbal Reasoning subtest, (2) the Numerical Ability subtest, and (3) the combination of these two subtests of the **Differential Aptitude Tests** for predicting student success in tenth grade plane geometry classes of a Minneapolis senior high school.

PROCEDURE: Literature closely related to the problem at hand was reviewed to establish perspective for the present study.

Samples of one hundred forty-five boys and one hundred seventy-one girls from the plane geometry population of a Minneapolis senior high school were included in the study.

Four statistical techniques were applied to the data: namely, analysis of the variance, comparison of the means, calculation of the validity coefficients, and construction of the expectancy tables. In the analysis, the data for boys and girls were treated separately.

FINDINGS: 1. The analysis of variance indicated equality of variability on each of the predictor variables.

2. The general level of performance by boys was found to equal the general level of performance by girls on each of the measuring instruments; with one exception, the Quantitative Thinking test. On this test, the general level

of performance by boys was significantly higher, using the one per cent level of confidence.

3. Validity coefficients, ranging from .37 for the Verbal Reasoning - Quantitative Thinking relationship to .60 for the combination - Quantitative Thinking relationship, were calculated from the boys' data on the measuring instruments. For the girls, a validity coefficient of .46 was calculated for (1) the Numerical Ability - Quantitative Thinking relationship, and (2) the Numerical Ability - grade earned relationship; and a validity coefficient of .60 was obtained for the combination - Quantitative Thinking relationship.

4. The purpose of the expectancy tables was to allow counselor interpretation of the test results to students, parents, and teachers. To facilitate this kind of interpretation, the cell per cents were translated into "chances of success" statements.

CONCLUSIONS: 1. Populations of the two junior high school samples were found to be homogeneous, on the basis of variability. It was concluded that the samples used in this study could well have come from the same population.

2. The distribution of scores, especially for boys, from the Quantitative Thinking test results showed a general "piling up" of these scores toward the upper end of the range. This kind of skewed distribution led the writer to conclude that the Quantitative Thinking test did not offer a sufficient number of difficult items. It was not known, therefore, how many individuals might have had higher scores if more difficult items had made up the test.

It would be desirable to administer the full length, fifty-three item version in place of the thirty-three item version of the Quantitative Thinking test to future populations at the selected senior high school.

3. The mathematics requirement for high school graduation was rescinded in the summer of 1962. The sample used in this study may not be representative of future populations at the selected senior high school. It would be desirable, therefore, to construct expectancy norms that could be applied to future populations.

THESIS COMMITTEE: Dr. Richard Nash, Chairman; Dr. Paul Ingwell
DATE OF COMPLETION: August 1963

AN INVESTIGATION OF THE PRACTICES AND OPINIONS OF ABILITY GROUPING IN SELECTED JUNIOR HIGH SCHOOLS

by Harold J. Schindele

PROBLEM: The purposes of this study were fourfold: (1) to determine the extent of ability grouping in the junior high schools of the Minneapolis metropolitan area; (2) to determine the procedures used in the grouping of students in the selected schools (3) to determine the feelings or opinions of school personnel toward ability grouping; and (4) to determine the social implications of grouping as viewed by the school personnel.

PROCEDURE: The research technique employed in this study to gather the necessary data was the survey questionnaire. Three similar questionnaires were developed and sent to principals, teachers, and counselors in thirty Minneapolis metropolitan area junior high schools. The 1962-63 edition of the *Minnesota Educational Directory* and the *Annual Report—Hennepin County Schools, 1961-1962* edition, served as the basis for preparing the list of junior high schools of the Minneapolis metropolitan area.

Responding to the questionnaires were twenty-nine of thirty principals, or approximately 97 per cent; 330 of 450 teachers, or approximately 73 per cent; and fifty-six of seventy counselors, or approximately 80 per cent.

FINDINGS: Following are some of the findings of this study.

1. Twenty-eight of the twenty-nine schools responding to the questionnaire (or 96 per cent) practiced ability grouping.

2. The ability grouping programs of the schools surveyed varied considerably from school to school.

3. Most schools (71 per cent) practiced three level grouping of high, average, and low.

4. Subjects in which students were most frequently grouped in grades seven through nine were mathematics, English, science, and social studies.

5. All schools used at least three criteria for student placement within groups. Forty-six per cent of the schools indicated they used at least six criteria for student placement.

6. A combination of intelligence test scores, achievement test scores, past achievement records, and teacher recommendations were used most frequently as criteria for grouping students.

7. The majority of principals, teachers, and counselors surveyed held favorable attitudes toward ability grouping as practiced in their schools.

8. The majority of principals, teachers, and counselors surveyed did not feel ability grouping created many serious social or emotional problems for students.

SUMMARY AND CONCLUSIONS: It was apparent to the investigator that ability grouping was practiced extensively throughout the United States in the face of, at best, conflicting research findings. Most of the arguments both for and against ability grouping appeared to be of a philosophical nature with little conclusive research to substantiate them.

While the literature indicated that ability grouping was practiced extensively, there was little similarity in the methods and policies of the various programs. This variety in methods and policies will probably continue since it represents an attempt to meet student and administrative needs as circumstances dictate.

Although a wide variety of practices and methods exist, ability grouping as a means of facilitating the education of students has gained wide acceptance. Metropolitan area junior high schools, as shown in survey replies, practiced ability grouping extensively and indicated satisfaction with the various programs, so long as they called for continual evaluation.

THESIS COMMITTEE: Dr. Richard Nash, Chairman; Dr. Frederick Markwardt, Jr.

DATE OF COMPLETION: August 1963

THE DEVELOPMENT OF A UNIT IN OCCUPATIONAL AND EDUCATIONAL INFORMATION TO BE USED WITH NINTH GRADE STUDENTS IN THE FRANKLIN JUNIOR HIGH SCHOOL, BRAINERD, MINNESOTA

by Roman Vincent Schultz

PROBLEM: It was the purpose of this study to formulate a unit of work in occupational and educational information that would serve the needs of the students of the Franklin Junior High School.

PROCEDURE: A study of the writings of the leading authors in the field of guidance was made along with the examination of other units of work to gain a working knowledge of what is generally considered to be of importance in an introductory unit of this kind. Personal contact was then made with various businesses and industries in the Brainerd community to collect local occupational information.

The next step was to compile a list of reference materials available in the local libraries that could be used in conjunction with the unit. The unit of work was then formulated by utilizing the information that was gathered.

FINDINGS: The contents of an educationally sound vocational-educational unit in the ninth grade should include activities that provide learning ex-

periences for the appraisal of the students' own capabilities and limitations, the study of the broad areas of occupational fields, and the educational possibilities that are in keeping with the students' capabilities. The group guidance methods employed should provide for the formulation of tentative vocational plans.

The teacher of the unit must provide the means of motivation for the student to enable him to discover his potentialities. In order to plan his future the student must know himself. A variety of teaching methods must be used to cover the individual differences found in the average classroom.

A systematic study of the broad areas of occupations is necessary to help young people know what is available to them. The local community is a rich source for much of this information.

Educational planning is closely associated with vocational planning. The student must consider senior high school course offerings, college entrance, and trade school possibilities in keeping with his tentative vocational plans.

SUMMARY AND CONCLUSIONS: There is need in the junior high school curriculum for an exploratory unit in occupations to serve as a foundation for sound career planning. Plans for the content of the unit must be made on the basis of present as well as future needs of the students. Consideration should be given to the study of aptitudes and abilities, interest fields, health and personality traits, major occupational fields, educational opportunities, vocational training and employment opportunities.

The value of student participation in planning group activities should not be overlooked. It is important that the group activities be meaningful experiences for the student.

The activities in which the students engage should enable them to draw from the local community and make the general occupational information found in printed materials more meaningful to them.

Decisions made by students regarding occupational choice should be tentative. The teacher of the unit should be fully qualified. Teaching of occupations should be continuous throughout the curriculum. The needs of the students are best served by initiating the unit system of teaching while utilizing the multiple textbook system.

THESIS COMMITTEE: Dr. Albert Krueger, Chairman; Dr. M. E. Van Nostrand
DATE OF COMPLETION: August 1964

A SURVEY OF THE SUMMER GUIDANCE PROGRAMS IN MINNESOTA PUBLIC SCHOOLS

by Lydell Edgar Taylor

PROBLEM: The purpose of this study was to investigate: (1) the extent of summer guidance programs in Minnesota public secondary schools; and (2) the counselors' functions in summer guidance programs, recipients of these duties and services and ranking of the time required to perform selected functions.

PROCEDURE: Questionnaires were mailed to each of the 122 public secondary schools that employed one or more full-time counselors during the 1961-1962 school year. Completed returns were received from 119 (97 per cent) of the secondary schools.

FINDINGS: Some of the findings as indicated by the survey are as follows:

1. Summer guidance programs were conducted in seventy-eight (66 per cent) of the public secondary schools surveyed. This number consists of sixteen per cent of all the Minnesota secondary public schools.

2. These schools employed 263 counselors for an average summer employment of approximately three weeks per counselor. There were 143,000 secondary school students enrolled in the schools with summer guidance programs.

3. Counseling services were performed by ninety-four per cent of these schools. The clients counseled in these schools were classified as the same types of clients as seen during the regular school year. Counseling was not the most time consuming activity for the counselors.

4. The counselors' reasons for seeing clients during the summer were educational, vocational and personal in nature. Registration was the most frequent reason for counselor contact with students. This activity required more of the counselors' time to perform than any other counseling activity.

5. Counselors in twenty-five per cent of the schools administered tests during their summer employment.

6. Less than twenty per cent of the schools reported that counselors were responsible for organizing summer classes, in-service training, employment and placement, or conducting summer classes.

7. Records and reports were reported by seventy-five per cent of the schools and up-dating the occupational file was reported by sixty-one per cent of the schools. These activities demanded a large part of the counselors' summer time.

8. The grouping of classes was reported by fifty-seven per cent of the schools and research studies were reported by fifty-three per cent.

9. Scheduling and re-assigning classes were reported by forty-four per cent of the schools. This function took the major share of the counselors' time for those who performed these functions.

10. Home visitations, writing bulletins and handbooks were minor summer functions.

CONCLUSIONS: 1. There is no single generally accepted summer guidance program in the high schools of Minnesota. The services offered, as well as the relative emphasis upon them, vary **markedly** from school to school.

2. The data indicated many counselors were employed to perform only one or two specific duties during the summer.

3. Guidance services tended to be extended during the summer.

4. Guidance services were utilized by parents and the community as well as students during the summer.

5. In general a nearly identical agreement exists between the duties and services performed during the summer and those performed by counselors during the regular year.

6. A great amount of the counselors' summer employment time was utilized in performing clerical duties.

THESIS COMMITTEE: Dr. Frederick Markwardt, Jr., Chairman; Dr. Vernon Mork

DATE OF COMPLETION: August 1964

A COMPARATIVE STUDY OF ETHICAL STANDARDS OF MINNESOTA SECONDARY SCHOOL COUNSELORS AND EMINENT AUTHORITIES OF COUNSELING ETHICS

by Vernon A. Wallin

PROBLEM: It was the purpose of this study to compare the ethical standards of secondary school counselors, especially concerning confidential information received in the counseling situation, with the code of ethics adopted by the American Personnel and Guidance Association, as interpreted by generally recognized and eminent authorities in the field of secondary school counseling and guidance.

PROCEDURE: The prepared questionnaire was sent to a 12 per cent random sampling of certified Minnesota counselors. Usable responses were received from 84 per cent of those contacted.

A sampling of twenty authorities in the field of counseling was chosen because of apparent leadership in the field of counseling ethics. Of these, 80 per cent responded to the questionnaire.

FINDINGS: Following are the significant findings of this study:

1. (a) Counselors agreed that release of confidential information concerning a counselee's physical illness or impairment may be released to parents, to other staff members, to the school administration; also it may be released for the protection of society, the counselee, or other students.

(b) Authorities could agree only when release of such information would help protect society, the counselee, or other students.

2. (a) Counselors agreed to release confidential information concerning a counselee's falsifying his academic record only to the school administration. Counselors also agreed that this information should not be revealed to other schools.

(b) Authorities did not agree in this area of the study.

3. (a) Counselors agreed that no confidential information concerning a counselee's cheating on tests should be revealed to other staff members or to other schools.

(b) Authorities did not agree in this area of the study.

4. (a) Counselors agreed that no information concerning a counselee's involvement in a felony should be revealed to other staff members or to other schools.

(b) Authorities agreed that this information may be revealed in order to protect society.

5. (a) Counselors agreed that no information concerning a counselee's involvement in a misdemeanor should be revealed to other staff members, to other schools, or to law enforcement officers (if not under court order).

(b) Authorities could not agree concerning this area of the study.

6. (a) Counselors agreed that information concerning a counselee's mental or emotional illness may be revealed to his parents, to the school administration, and also to protect society, the counselee, or other students. The counselors also agreed that this information should not be revealed to law enforcement officers (if not under court order).

(b) Authorities agreed that this information may be revealed in order to protect society, the counselee, or other students.

7. (a) Counselors agreed that confidential information should not be revealed to law enforcement officers (if not under court order). They also agreed that confidential information may be revealed in order to protect society, the counselee, or other students.

(b) Authorities agreed that confidential information concerning a counselee may be revealed in order to protect society, the counselee, or other students.

SUMMARY AND CONCLUSIONS: There was significant agreement among counselors on twenty-five of the forty-three questions for 58 per cent agreement. The authorities significantly agreed on ten of the forty-three questions for a 23 per cent agreement.

Agreement between the two groups occurred in nine of the forty-three questions for a 21 per cent agreement.

THESIS COMMITTEE: Dr. Frederick Markwardt, Jr., Chairman; Dr. Frank Slobetz

DATE OF COMPLETION: July 1964

JUNIOR HIGH SCHOOL EDUCATION

A SUMMARY OF RESEARCH COMPARING THE BLOCK-OF-TIME TYPE OF ORGANIZATION FOR INSTRUCTION AND THE DEPARTMENTAL TYPE OF ORGANIZATION WITH RESPECT TO ACHIEVEMENT IN THE JUNIOR HIGH SCHOOL

by Haskell Kennedy McCall, Jr.

PROBLEM: To determine the effectiveness of the block-of-time type of organization for instruction for the junior high school with respect to achievement.

PROCEDURE: The block-of-time type of organization for instruction in the junior high school has increased rapidly in the junior high school since 1953. The literature pertaining to the subject after 1953 was examined. The studies of the block-of-time were chosen on the basis of date of publication, depth of information, and accuracy.

FINDINGS: The findings include the following:

- (1) Core students participate in a greater number of extra-curricular activities than do non-core students.
- (2) The below-average ability students benefit more from a core-class than they do in a departmental class.
- (3) The core students learn as much as, and in most instances, more than do non-core students.

SUMMARY AND CONCLUSIONS: The purpose of the study, statement of the problem, organization of the thesis, procedure, and limitations are given in Chapter I. The development of the junior high school, reasons for its beginnings, and development of the core curriculum are given in Chapter II. Chapter III includes the functions of a junior high school. The studies reviewed and conclusions drawn by researchers are included in Chapter IV. Chapter V contains the summary, conclusions, and recommendations.

THESIS COMMITTEE: Dr. A. H. Schelske, Chairman; Dr. Fred Menninga

DATE OF COMPLETION: July 1964

A STUDY TO LOCATE, SELECT, AND ORGANIZE VOCAL MUSIC THAT CAN BE USED TO ENRICH THE SUBJECTS OF AMERICAN HISTORY AND LITERATURE

by George Martin Ohmann

PROBLEM: The purpose of this study was to locate and select songs that can be used to enrich the teaching of United States history and American literature.

PROCEDURE: For the express purpose of organization, the Minnesota State Department course of study was used. In its social studies curriculum, the bulletin presents eight units of study — the history portion of the seventh grade social studies course:

- III. How America was Discovered and Explored
- IV. The Colonization of the United States
- V. How the Colonists Won Independence
- VI. How Free America Built a New Nation
- VII. How the Nation Grew in Size and Strength
- VIII. How the Nation was Broken and Restored
- IX. How the Industrial Nation was Developed

X. How the United States Became a Leader in the World Family of Nations

To aid in the selection of appropriate songs, the following criteria were developed and used: (1) simplicity, (2) suitability, (3) historical significance, and (4) personal taste.

The music resources of the St. Cloud State College, Minneapolis Public and St. Cloud Public libraries were surveyed for folk songs, art and commercial songs, ballads and spirituals.

FINDINGS: These sources, available and used, yielded nearly one hundred and eighty songs which met the criteria and consequently were selected for the project. There are twenty or more songs for each of the eight suggested units.

Each song was paired with one page of relevant background information. Many are introduced with the story of the song's historical origin. Others are introduced with anecdotes, biographical data, folktales, or additional pertinent details to increase understanding and appreciation of each song.

SUMMARY AND CONCLUSION: One of the main purposes of this project was to meet an important need in the educational program of junior high schools—to enrich the study of American history with songs and enrich the teaching and study of general music with history. The organization and presentation of the songs according to the Minnesota seventh grade social studies curriculum will facilitate using the songs in coordinating the study of United States history, American literature, and music.

RECOMMENDATION: On the basis of this study it is recommended that schools supplement and enrich the study of American history and literature with songs to provide a broader understanding, a fuller appreciation, and a greater enjoyment.

THESIS COMMITTEE: Dr. A. H. Schelske, Chairman; Mr. Harvey Waugh
DATE OF COMPLETION: June 1965

A SELECTED LISTING OF RESOURCE MATERIAL AVAILABLE FOR EIGHTH GRADE SOCIAL STUDIES AS OUTLINED IN CURRICULUM BULLETIN NUMBER 17E

by William D. Schultz

PROBLEM: The purpose of this study was to compile a list of current annotated resource materials for an eighth grade social studies program as outlined in *A Guide for Instruction in Social Studies*, (Curriculum Bulletin Number 17E), State Department of Education, 1957.

PROCEDURE: Books, pamphlets and articles from periodicals that deal with content as suggested in the Curriculum Bulletin for eighth grade social studies were located. The content was examined to determine its appropriateness as resource material for eighth grade social studies. In addition to books, pamphlets and magazines, reviews from professional magazines and library catalogs were examined for information about resources not easily available.

Each book and pamphlet was reviewed, and the reading level was obtained by use of the Dale and Chall method. In cases where the review listed the reading level, the book or pamphlet was merely classified accordingly without application of the Dale and Chall reading level formula.

The procedure used to designate the reading level below the eighth grade was an asterisk after each entry of books or pamphlets, two asterisks for eighth grade level and three asterisks for those above the eighth grade level. The articles from the periodicals are not classified as their reading level tends to follow the reading level of the periodical in which they are found.

FINDINGS: Resource materials for the eighth grade social studies, as in any other grade or subject matter field, help to develop interest and can be of

most help when they satisfy the natural curiosity of the young reader. Merely developing an interest does not insure lasting or constructive interest but rather a starting point. Hence, when curiosity is aroused, a source of information should be available.

A wide variety of materials are available to the teacher wishing to use resource material in his instruction. The type and number used will depend on the needs of the teacher, the materials covered, and the comprehensiveness of the textbook or textbooks.

The only available listing of the type used in this study is found in Curriculum Bulletin Number 17E, which has a copyright date of 1955. This has become incomplete or inadequate because none of the resources published since 1954 appear in the Bulletin.

SUMMARY AND CONCLUSIONS: The availability of resource materials for each unit seems to depend on the amount of travel and study that has been conducted in the geographic area. There is a wealth of resource material available for South America and Europe, while there is relatively little resource material available for Asia and Africa which probably have been less frequently traveled by those who contribute to published reports suitable for use in eighth grade social studies.

Many good books are written at the junior high school level. However, it is more difficult to find materials at the junior high reading level in pamphlets and periodical literature. A few good series of books are being published primarily as a source of information for area regional studies in geography. In addition to the series, many other individual books about different countries or regions are being published.

THESIS COMMITTEE: Dr. A. H. Schelske, Chairman; Dr. Jack Jones

DATE OF COMPLETION: August 1963

READING SPECIALIST

A CORRELATION OF INDIVIDUAL AND GROUP READING TESTS

by Rosemary Malmgren Schneiderhan

PROBLEM: It was the purpose of this study to investigate the value of several types of reading tests which are used in the elementary schools for the purpose of determining reading grade placement of the pupils. This study attempted to find the correlations using an individual reading inventory, a group reading inventory, and a standardized reading test in determining the reading grade placement of pupils.

PROCEDURE: The Botel Reading Inventory, California Reading Test, and the Allyn and Bacon Informal Reading Inventory were given to the third through sixth grade students attending the Hoffman, Minnesota, School during the school year, 1962-1963. The tests were given between the third through sixth week of school by the writer and were hand-scored within two weeks of the completion of the testing program.

The Spearman Rank-order Method (ρ) was used to compute the correlation coefficient of the reading placement tests used in this study: Botel Reading Inventory with the Informal Reading Inventory, the Informal Reading Inventory with the California Reading Test, and the Botel Reading Inventory with the California Reading Test. Since the correlation coefficients considered only the ranks given to the students, the actual grade-placement scores on the three tests were compared to obtain information on the extent that one test overrated or underrated the individual grade-placement scores on the others.

FINDINGS: The correlation coefficients obtained were as follows: +.944, Botel Reading Inventory with Allyn and Bacon Informal Reading Inventory; +.908, Allyn and Bacon Informal Reading Inventory with the California Reading Test; and +.923, Botel Reading Inventory with the California Reading Test.

More than three-fourths of the students tested (76.9 per cent) were rated within one-half grade level on the Allyn and Bacon Informal Reading Inventory, an individual reading placement test, and the Botel Reading Inventory, a group reading placement test. Over one-half of the group tested (52.3 per cent) received the same grade-placement score on the Informal Reading Inventory as on the Botel Reading Inventory. The differences of the individual grade-placement scores on these two tests were never greater than one and one-half grade levels.

The California Reading Test, a standardized reading achievement test, rated over nine-tenths of the students (91.5 per cent) between one-half and five grade levels higher than the grade-placement scores obtained by them on the Allyn and Bacon Informal Reading Inventory. The California Reading Test rated one hundred twenty-two students of the one hundred thirty tested (93.8 per cent) between one-half and five grade levels higher than the Botel Reading Inventory.

SUMMARY AND CONCLUSIONS: The teacher is justified in using the Botel Reading Inventory to determine the reading grade placement of the pupils in a classroom. The Botel Reading Inventory correlates significantly high in a positive direction with an individual informal reading inventory and a standardized achievement test.

Great care must be made when interpreting standardized reading test scores, especially if they are being used to establish teaching levels or instructional groups. The composite scores on these tests rate the students high in comparison to tests specifically designed to place students at their proper reading level.

An informal reading inventory is recommended for the purpose of diagnosing remedial reading students. This inventory is administered to an individual child and gives more detailed information on his reading difficulties.

THESIS COMMITTEE: Dr. Arnold Zaeske, Chairman; Dr. Floyd Perry
DATE OF COMPLETION: August 1963

A FOLLOW-UP STUDY OF DISABLED READERS

by Elaine Kathleen Skavanger

PROBLEM: The purpose of this study was to determine the progress, if any, made by selected students who have been diagnosed as disabled readers by the St. Cloud State College Psychological Services Center but who have not received remediation there.

PROCEDURE: Twenty-five students who were studied by the Psychological Services Center from the summer of 1956 through 1959 were selected for the study. Three different questionnaires were developed and one was sent to the teacher, one to the parents, and one to the child. Out of the twenty-five cases that were originally selected, fifteen were finally used because of various follow-up problems.

FINDINGS: The data from the replies were tabulated and analyzed:

1. Of the students who had remedial reading instruction, ten of the eleven cases progressed greater-than-normal in their reading ability.
2. After the schools received the case study reports from the Center regarding needs for these students' special reading instruction, such instruction was given to eleven out of fifteen students.
3. When the remedial reading instruction was given, the kinds of materials most often used were basic readers, workbooks, and games. The special

reading instruction was usually administered by a remedial reading teacher, and this was done most often in small groups.

4. The students' responses to the remediation were varied. Those students who progressed reacted well to the remediation given because they made favorable comments. Some reported they did not apply themselves or try to improve.

5. Most parents followed the recommendations for their children as given by the Center and seemed pleased about the remedial instruction given to their children.

6. Only four of these eleven students were given the special reading instruction as soon as possible.

SUMMARY AND CONCLUSIONS: The results of this investigation seem to indicate that:

1. The Psychological Services Center of St. Cloud State College is providing a valuable service to the children who are diagnosed there, but who receive remediation outside the Center.

2. Some schools may need to examine their reading programs more closely and provide facilities and qualified personnel for a remedial reading program.

3. Special reading instruction has proved worthwhile and should be pursued by parents and schools when it is recommended.

4. Schools need to be more efficient in following the recommendations for special reading instruction.

This study makes the following recommendations:

1. The Center should investigate what, if anything, could be done to make the schools more efficient in responding to the recommendations made in the case study report and in seeing that these recommendations are carried through.

2. The school should investigate what, if any, possibilities there might be for a better school follow-up of the case study report and for a more efficient transfer of this information as the student moves from school to school.

3. It is suggested that the Center might give the parents more information and authority in securing remedial instruction.

4. A future study might make a comparison of two groups: a group of students used in this study and a group of students who have previously received remediation at the Center. The purpose of this study would be to see how these two groups relate or differ in their reading progress.

THESIS COMMITTEE: Dr. Victor Lohmann, Chairman; Dr. Eloise Courter
DATE OF COMPLETION: August 1964

