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ABSTRACT

In an effort to develop an instructional model for a small, rural high school of 200 or less in compliance with the Illinois State Guidelines, the Guidelines were analyzed and small-school educational literature on models and operational instructional schemes were reviewed. The criteria employed in model development were: (1) Can flexibility be considered a feature?; (2) Can a staff of 12 or 13 teachers readily adapt to the concept?; (3) Is the cost reasonable for a small-school budget?; (4) Is there an authority in the field who considers the identified concept valid?; (5) Would this concept facilitate community instructional goals? Utilizing a format involving inventory of need, statement of need, performance objective, and implementation, the model was designed around the following stated student goals: (1) to develop a desire for learning now and in the future; (2) to develop skills in math, reading, writing, speaking, and listening; (3) to develop pride in work and a feeling of self-worth; (4) to develop character and self-respect; (5) to learn to get along with people with whom you work and live; (6) to learn how to respect and get along with people who think, dress, and act differently; (7) to learn how to examine and use information. Elements included in the model were: classroom learning conditions; teaching-learning schematics; organizational patterns; curriculum; and personnel assignment. (JC)

A MODEL OF A PROGRAM PLAN AND AN EXPANDED INSTRUCTIONAL PROPOSAL FOR A SMALL RURAL HIGH SCHOOL IN ILLINOIS THAT WILL PROVIDE AN ACCEPTED PROGRAM AS MEASURED BY ILLINOIS STATE GUIDELINES

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ABSTRACT

Statement of Problem

What would be a possible design of an educational model for an Illinois high school of from less than one hundred students to a maximum of two hundred students if it were to meet the state of Illinois requirements in the areas of curriculum and staffing as well as meeting stated student goals? Traditional teaching-learning modes and traditional organizational patterns to deliver the courses necessary will not suffice to meet state standards when a school of the above size range cannot afford to hire more than twelve to thirteen faculty members. The Directory of Illinois Schools lists at least 115 schools in the above mentioned size range who must cope with seeking solutions to the stated problem.

Plan of Study

The state of Illinois guidelines were analyzed to identify critical areas of concern that would hinder a small school from complying with the guidelines. The literature on educational models and advantages and disadvantages of a small school were reviewed in order to build a unique model through the synthesis process. Literature was reviewed on the "operational instructional schemes"

which could facilitate the delivery of the curriculum. The lecture approach may be appropriate at times, whereas assigned reading of a correspondence course may be appropriate at other times. Organization of teaching schematics was reviewed in literature to identify and utilize those organizational patterns where most appropriate. Multiple classes, where two related courses are taught simultaneously by the same teacher, may be the best organizational pattern to meet students' needs with a limited faculty in specific areas.

As the model evolved through synthesizing the options reviewed in literature, the following criteria were used to guide the process:

1. Can flexibility be considered a feature?
2. Can a staff of twelve or thirteen teachers readily adapt to this concept?
3. Is the cost reasonable for such a budget as a small school could create?
4. Is there an authority in the field who considers the identified concept valid and worthwhile?
5. Would this concept facilitate the goals established by the community for the instructional program?

The Model

The criteria of the state of Illinois guidelines was the guidepost to designing the model so as to fulfill state requirements. Seven stated student goals were the framework around which the model was designed. The format for each of the student goals was as follows:

1. Inventory of need
2. Statement of need
3. Performance objective
4. Implementation procedure

Classroom learning conditions that encourage student-centered learning were described in the model. Course offerings and modes in which they will be offered, such as regularly scheduled or independent study approaches, were identified. The faculty and the course patterns taught by each were described.

Conclusions

A model can be developed that accommodates the unique features of a small school with limited staff and facilities if the teachers' roles change and organizational patterns better adapted to a small student population are implemented. This can be done within the Illinois guidelines by petitioning for variances and being willing to arrange staff assignments with personnel meeting only the minimum requirements.

ACKNOWLEDGMENTS

This study has been a result of inspiration gleaned from many of my associates over the years as I have participated in innovative teaching endeavors at the Iola Frans School in Tucson, Arizona, and as a principal in both Casa Grande, Arizona, and Glen Ellyn, Illinois. As an instructor at the College of DuPage, my associates and students further enhanced my interest in the designing of this model. Finally, the opportunity to be a school administrator in a challenging setting, effect change and thus design a program that would uniquely meet a local need has been the culmination of the motivation for such a study.

In preparation of this study, Dr. Larry Freeman has encouraged me to the degree that I know I have taken up a good cause on behalf of small schools. Dr. Estabrooke, my advisor, has shown charity toward me by releasing his personal resources and those of his associates, Sue Diamond and Ariel Hale. They have edited and made valuable contributions to this study. My wife, Phyllis, has worked patiently with me by making cogent suggestions, editing and typing this to the final form. Without these people to encourage me, I would have failed.

CHAPTER I

INTRODUCTION

Statement of Problem

What would be a possible design for an educational model for an Illinois high school, of from less than one hundred students to a maximum of two hundred students with a full-time certified faculty of twelve to thirteen members, if it were to meet the state of Illinois requirements in the areas of curriculum and staffing as well as meeting locally designed student goals?

The state criteria which must be met are published in Circular Series A, Number 160, The Illinois Program for Evaluation, Supervision, and Recognition of Schools.[1] This document will be referred to in this study as A160. This is a rather new document developed and circulated to schools in final form July, 1973, and it is continually being revised. Many elements of this document would be difficult for a small school of less than two hundred to meet due to lack of staff members, kinds and numbers of courses

[1] Illinois, Office of the Superintendent of Public Instruction, The Illinois Program for Evaluation, Supervision, and Recognition of Schools, Circular Series A, Number 160, 1973.

required, as well as limitations placed on number of teacher preparations and assignments.

Preparation requirements listed in the appendix mandate the specialist approach to high school teacher preparation.[1] Thus schools that have limited numbers of teachers, many who are on tenure, teaching in as many as three different curricula areas will be pressed to increase staff beyond either resources or facilities available. An example of this is an industrial arts/agriculture teacher who also teaches biology. This person will be limited in several ways. One, industrial arts and agriculture cannot be fused as one course in the lower level courses. The state personnel's interpretation of the old criteria allowing certain agriculture courses to count toward a teacher's preparation qualifying him to teach biology will not be accepted. Separating agriculture and industrial arts will produce too many preparations for the individual teacher.

The A160 incorporates a set of criteria both mandated by law and set forth as a regulation by the Office of the Superintendent of Public Instruction of the State of Illinois. Included in the A160 document is a requirement that each district write a program plan.[2] Some flexibility

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[1] Appendix II

[2] Illinois, The Illinois Program for Evaluation, Supervision, and Recognition of Schools, p. 3.

is thus allowed from district to district to accommodate the uniqueness of each community.

The curriculum organizational patterns and operational concepts of the teaching-learning schematics now being implemented at Rankin High School, which are primarily teacher-centered with group learning in a departmentalized setting, limit the options available to an educational system. The purpose of this study will be to utilize a skeletal program plan as a basis for an expanded plan in the critical areas of curriculum and staffing that will meet the student goals in the Rankin High School district. Other organizational patterns of instruction and teaching-learning schematics must be implemented in order to allow for a flexibility believed necessary if the criteria and the program-planning requirements of the Illinois Office of the Superintendent of Public Instruction are to be met.

The Directory of Illinois Schools reflecting the number of districts and student enrollment for the 1973-74 school year lists at least 115 schools with a population of less than 200 students. A range of 200-219 students was allowed for the upper limits to describe a school of 200 population because of falling enrollments and drop-outs since the September reporting of these figures.[1] An exact

[1]Illinois, Office of the Superintendent of Public Instruction, Directory of Illinois Schools, Circular Series A, Number 315, 1974.

number of the schools in Illinois of less than two hundred students cannot be determined because of the following inconsistencies in reporting:

1. Grades seven through twelve are reported as high schools in some cases.
2. Kindergarten through twelfth grades are listed as one school in some cases, thus not discriminating as to how many are ninth through twelfth grade students.
3. Non-graded schools produce the same confusion as article two for reporting purposes.

Ethnic groups representing various cultures, nationalities and races of people have requested the right to keep their identities.[1] The case of Wisconsin v. Joseph Yoder[2] and articles in the journals of professional education magazines discussing black studies are examples of a similar desire.[3] These and other such examples are assumed to be a symptom of a reversal from that of America's image as becoming a great melting pot. The urge for individual and group identity is an emerging aspect of society today. An evidence of this is the interest in

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[1]Donald W. Robinson, "Alternative Schools: Do They Promise System Reform?" Phi Delta Kappan 54 (March 1973): 433.

[2]Joe Wittner, "The Amish and the Supreme Court," Phi Delta Kappan 54 (September 1972):50-52.

[3]Arthur L. Smith, "What's the Score on Black Studies," Today's Education 62 (September 1972):62-63.

community education. Since community education is a definable educational concept with the community its delivery vehicle, it is reasonable to suppose that a valid goal might be to preserve a school organizational pattern which has a definable community identity.[1]

Local newspapers have printed articles concerning small community resurgence. Also, organizations such as the Illinois Association of Local Control of Schools have been formed to enhance community identity and involvement in the processes of education. Therefore, it seems evident that these small rural communities in Illinois are striving to keep their own uniqueness by retaining the local school system, regardless of its size.[2]

It may be that the requirements for meeting certain curriculum and staffing needs and the goals society sets for the schools are of such large magnitude that a small school district cannot keep its recognized status in Illinois and therefore would be required to disband in some fashion. As mentioned previously, the thrust toward specialization in teacher preparation and limitation on numbers of preparations leads toward the conclusion that

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[1]Jack Minzey, "Community Education: An Amalgam of Many Views," Phi Delta Kappan 54 (November 1972):152.

[2]Elaine Symanski, "Small Town Tries to Reverse Downhill Struggle," The Commercial News, Danville, Illinois, 10 October 1973, p. 6.

the small school concept has not been adequately included in the planning of the A160 document. An attempt will be made to construct an educational model that can meet the various requirements and yet serve a very small student body.

The range of from less than one hundred students to a maximum of two hundred students is not totally arbitrary, only that Illinois has selected arbitrarily lower limits. With less than sixty average daily attendance students, a school cannot receive state aid without special approval.

There has been a strong movement to pass legislation that would require the minimum size high school district to have no less than five hundred students. Schools with less than two hundred students frequently have ten or less teachers, thus limiting course offerings available.

A school which enrolls less than two hundred high school students is considered small by the experts.[1] Again, two hundred is considered small when relating to varied levels of size where less than four hundred students is considered "smaller," less than two hundred

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[1]U.S., Department of Health, Education and Welfare, Rural Renaissance (Washington, D.C.: Government Printing Office, 1961), p. 2.

students is considered "small" and less than one hundred students is considered "very small."[1]

The Rankin, Illinois, Community

Rankin's school district has a population of slightly less than 1,400 people. Although it is essentially rural, yet the heritage of having been a railroad town has had its influence. Agriculture, railroading and business pursuits have contributed to its growth.[2]

The high school, which was built in 1952 for a student population of between 100 to 130 students, has minimal facilities that allow little or no room for expansion of its program. The board of education for the high school is one of two boards for the two school districts in Rankin, the other being an elementary school district. Rankin is said to have a dual school district.

The boards of education are committed to a quality program. The staff of ten full-time equivalent teachers, of which eight are full-time teachers, for a total of

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[1]Albert I. Oliver, "The Smaller Secondary School and Accreditation in the Middle States Association of Colleges and Secondary Schools," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):107.

[2]Sophia Lutz, ed., Stories of a Prairie Town: History of Rankin, Illinois (Potomac, Ill.: Westcove School, 1972), p. 96.

ninety-three high school pupils creates a high per pupil expenditure for instruction: $1,800.

Four public school districts border the Rankin districts. Two of these--Hoopeston to the east and Paxton to the west--are each less than fifteen miles distant and have a pupil population in grades nine through twelve in the 400-500 pupil enrollment range. Vocational educational centers are at least forty miles away. Paxton will offer many of the vocational courses needed to round out Rankin's vocational program. Other districts have resources that could be shared with Rankin on a pro-rated cost basis. The Rankin school, in the 1973-74 and 1974-75 school years, shared staff with Cissna Park to the north and participated in the Vermilion County Association for Special Education to provide for pupils having special needs.

Significance of Study

In a study on organization size and effects on employees, Davies and Griffiths infer that individual school size should be kept to the absolute minimum essential to provide a desirable program. Teacher morale, they believed, should improve in a smaller organization.[1] The nature of teaching is that of interpersonal relations, which implies that positive teacher morale is essential if the teaching

[1]Daniel R. Davies and Daniel E. Griffiths, "Organization Size Affects Employees." Taken from an occasional paper; printer unknown. (Mimeographed)

is to be effective. This view is supported by Barker who says, ". . . the larger and more bureaucratically efficient the organization, the greater the degradation of the individual."[1]

Beyond research one can see evidence of the virtues of smallness in education and thus a breakdown of the large-system concept and its effectiveness and desirability. New York City has more than one million students.

> The problems of bigness are as great or greater there than in any school system. One response has been the development of a variety of different mini-schools. A dozen were opened in 1971. Most average from 100 to 125 students.[2]

Newman states his belief that students in small schools have more opportunities for participation and responsibilities in various activities than do students in large schools.[3] The Broady's support Newman's views when they state:

> The proportion of students who participated in district dramatics, journalism, student government, and music festivals and competitions

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[1]Roger C. Barker, Big School-Small School (Lawrence, Kan.: University of Kansas, 1962), cited by Knute O. Broady and Lois P. Broady, Administration of Small Twelve-Grade Schools (Lincoln, Neb.: University of Nebraska, 1974), p. 15.

[2]Douglas Watson, Alternative Schools: Pioneering Districts Create Options for Students (Arlington, Va.: National School Public Relations Association, 1972), p. 19.

[3]Paul Newman, "The School: A Psycho-Social Ecosystem," Educational Horizons 51 (Winter, 1972-73): 61.

> reached a peak in high schools with enrollments between 61 and 151. The proportion of participants was 3 to 20 times as great in the small schools as in the largest school.[1]

The criticisms that traditionally are made of the small schools are justified in that small schools have attempted to emulate the larger schools, doing so at times or in given situations in a substandard way. Earlier in the century Butterworth stated that the small school could be extremely effective when procedures planned especially for the small school were put into effect.[2]

The identity crises faced today may add support to the movement toward community education. A document supporting community education has been signed by many and varied leaders of the nation.[3]

Perhaps the need to meet new requirements in order to avoid dissolution of small schools will allow for changes not acceptable under other conditions. If a model designed to meet stated student goals which includes deviations from traditional operational philosophy and thus encourages a variety of non-prevalent teaching-learning

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[1]Knute O. and Lois P. Broady, Administration of Small Twelve-Grade Schools (Lincoln, Neb.: University of Nebraska, 1974), p. 15.

[2]J. E. Butterworth, "Looking Ahead in Rural Education," Illinois Teacher 19 (May 1931):377-78.

[3]Stanley M. Elam, ed., "Widespread Support for Community Education," Phi Delta Kappan 54 (November, 1972): 147.

modes is designed and if a varied curriculum is developed which meets the criteria of A160, perhaps this model will foster change in the Rankin school. Not only would student needs be better met, but the school could continue as a separate entity.

Much has been done to assess urban needs and design programs to meet the needs in urban areas in contrast to developments in rural areas and rural schools.[1] The model that will emerge from the present study may contribute to the present relatively meager designs for rural schools. ERIC/CRESS (Educational Resources Information Center/ Clearinghouse on Rural Education and Small Schools) and NFIRE (National Federation for the Improvement of Rural Education) are examples of organizations dedicated to the improvement of rural education and general quality of living.

Political factors have slowed down the consolidation of small schools in Illinois. Only Texas has more individual districts than Illinois.[2] The A160 document has been drafted that identifies minimal requirements for a quality school in Illinois, yet it is to be determined how

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[1] Patricia Stans, "Issues in Rural Education: Student Needs," ERIC/CRESS Newsletter 8 (Summer, 1973).

[2] Jack Witkowsky, Chairman, Illinois State Board of Education. Speech presented at Illinois Association of School Boards Convention, Chicago, Illinois, on November 23, 1974.

much power the Office of the Superintendent of Public Instruction has to implement these guidelines when infractions are discovered.

Procedures

Pertinent literature dealing with other models will be reviewed. Other literature substantiating the advantages and disadvantages of small districts will be reviewed. A program plan in the areas of curriculum, staff and teaching-learning modes that accommodates the student goals will also be developed. The skeletal plan has been developed through faculty-community interaction with respect to what the general goals should be. The final form had the official approval of the local board of education and the Office of the Superintendent of Public Instruction during the 1973-74 school year.[1]

The model will be based upon student goals and a unique design for meeting these goals. Curriculum designs and organizational patterns not now believed to be common in small rural schools will be synthesized to accommodate the model design.

Scope and Limitations

The model resulting from the present study is designed to meet only Illinois program planning and A160

[1]Appendix I

criteria for a small rural school of from fewer than one hundred high school pupils to not more than two hundred pupils. The expansion of the skeletal program plan is only in the areas of student goals, curriculum organization, staffing patterns and teaching-learning modes which will be designed to meet the goals. State acceptance of the expanded areas does not necessarily mean these would be accepted by elements of a small rural community or be officially approved by the local board of education.

CHAPTER II

THE DILEMMA FACING THE SMALL RURAL SCHOOL DISTRICT AS RELATED TO ILLINOIS INSTRUCTIONAL CRITERIA

Analysis of State Guidelines in Regard to Small Schools

Guidelines established by the state of Illinois in the A160 state that local flexibility is one goal of the State Department of Education.[1] However, basic minimal standards arise from assumptions and attitudes that do not always allow for flexibility. The elements of the A160 guide that tend to restrict a small high school in the areas of curriculum organization and staff utilization will be identified in the following discussion.

Some legislative mandates exist over which the Office of the Superintendent of Public Instruction has little control. Most of these legislated mandates concern either curriculum requirements, such as career education, or certification requirements. Other basic standards are those established by the Superintendent of Public Instruction by authority of the legislature. The standards fall

[1] Illinois, The Illinois Program for Evaluation Supervision, and Recognition of Schools, p. 3.

into two categories, quantitative and qualitative. These standards are only minimal standards. This in itself is restrictive. For example, Guideline 6-4.5 of A160 states, "No teacher shall have more than five different preparations."[1] This standard, if narrowly interpreted, could limit a school which practices multiple classes as employed in The Catskill Area Project in Small School Design.[2] Multiple classes will be described in Chapter IV.

The following requirements of the A160 are areas of concern in this paper:

1. Provisions for all students

> Every school district shall make provisions for students of different talents, intellectual capacities, and interests. The listing of course offerings alone is inadequate evidence that such provisions exist.[3]

Special education for "gifted" as well as "disadvantaged" students is nearly an impossible task in the small school district unless there is cooperation with other districts in the area. Also, situations concerning pupils with special curricular interests of low incidence are difficult to serve.

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[1] Ibid., p. 18.

[2] Nevada Western States Small Schools Project, New Dimensions for the Small Schools of Nevada. A Report of the Western States Small Schools Project for Nevada (January 1, 1962 - August 31, 1965) (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 026 169, 1966).

[3] Illinois, The Illinois Program for Evaluation Supervision, and Recognition of Schools, p. 15.

2. Semester-hour requirements:

> The instructors shall meet the semester hour requirements for the areas of their teaching assignment as outlined in Chapter IX, Section 9.5, of this document.[1]

It is difficult for the small high school district to secure teaching personnel meeting semester-hour requirements, as often one teacher must teach in several subject areas.

3. Minimum of program offerings required:

> The district must provide a comprehensive curriculum, including the following as a minimum program of offerings:
>
> Language Arts
> Science
> Mathematics
> Social Studies and History of United States
> Foreign Language
> Music
> Art
> Career Development--Orientation and Preparation
> Health Education
> Physical Education
> Conservation
> Consumer Education
> Nature and Effect of Alcoholic Drinks and Narcotics
> Special Education
> Driver Education (high school only)
> Vocational and Technical Skill Development (high school only)
> Safety Education[2]

Offering a full array of vocational courses is rather difficult. Advanced courses in each area are not

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[1]Ibid., p. 15. (See Appendix II)

[2]Ibid., p. 17.

always taught. Awareness, exploration and orientation in the area of career development are within the realm of possibility. Job-entry preparation in a wide number of fields presents serious problems.

4. Teachers teach in major area of preparation:

> At least seventy-five percent of the courses should be taught by teachers who have major preparation in the subject areas.[1]

This is not too difficult a requirement for a small school to meet for the total program, but some individual teachers will teach less than seventy-five percent of the time in their area of major preparation.

5. Additional Criteria

> Each teacher should teach subjects that are in his field of major preparation and the teaching load should not be excessive. A teacher who has three different class preparations in the field of his major preparation should not have more than one class preparation in the field of his minor preparation.[2]

The "shoulds" in this requirement as well as others may allow a degree of flexibility; but if "should" is interpreted as "must," another problem is created in administering the small high school staff.

Although a quantitative standard designating a total number is not applied to course offerings in the A160, it is interpreted by state personnel that numerous

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[1] Ibid., p. 18.

[2] Ibid.

courses are to be offered and that a range of forty to fifty course offerings is a minimum requirement for any high school. This broad requirement, tied in with the previously listed requirements, creates a problem if all courses must be taught during one school year.

Twenty-four semester hours is the minimum requirement in order to teach in most specific subject areas. However, foreign language, health education and mathematics each require twenty semester hours and are exceptions to the twenty-four semester-hour rule. In vocational fields a normal requirement is eight hours of specific preparation for the particular course one is teaching; consequently, one person rarely qualifies to teach all areas in his or her vocational field. A complete listing of requirements in the appendix will reveal the full scope of the A160 requirements in specific areas.[1]

The problems the small high school has in meeting A160 requirements is in providing an adequate staff, each member having the appropriate number of course hours of preparation to meet the standards stated. Although "should" may be a flexible and permissive term, there is need for an acceptable alternative to the "three and one" preparations in major and minor fields. Library/media

[1]Appendix II

criteria are a major hurdle as well as offering numerous career offerings that prepare students for career endeavors at graduation. It is difficult to offer advanced level course work in many fields of vocational study. Another dimension to this dilemma of the small school's problems is the fact that school programs generally are not changed in local school settings.[1] That is, the small high school tends not to be innovative and tends not to generate a move toward internal changing or improving of its program. Outside forces usually must bring about this change.

The Dilemma--as Seen by Other Small School Administrators

Seven of the small schools of nearly one hundred students in central Illinois were surveyed by telephone to determine whether their superintendents could envision problems meeting the new guidelines. Four of the responding superintendents indicated that in general they would have a difficult time meeting the new A160 guidelines. Three indicated that they would not have a difficult time meeting new guidelines.

All but one superintendent indicated that their teachers presently meet the semester hour requirements for

[1] B. Frank Brown, "The Grade Dilemma," in Criticism Conflict & Change, ed. by Emanuel Hurwitz, Jr. and Robert Maidment (New York: Dodd, Mead & Company, 1970), pp. 401-405.

the courses they teach; however, all agreed that their teachers are limited as to what subjects they can teach in their fields and thus extra staff is required to teach the full spectrum of most academic discipline areas. This is especially true when older teachers retire (who are allowed to teach with lesser requirements met; i.e., grandfather clause) and new teachers are hired with narrower teaching backgrounds. Four superintendents responded that some teachers are teaching more than one course in their minor field; one did not know. None felt they would have trouble having seventy-five percent of the courses taught by those teaching in their major field.

There is no consistent pattern as to what the superintendents stated as their major concerns in fulfilling A160 requirements. Each have different curricular or staffing areas that need to be filled or would be difficult to fill if present staff left. Library, art and pupil personnel services are areas that are not staffed or are not well-staffed in some of these schools. One school had no cafeteria. The lack of money available to continue their existing programs is a problem common to all of the districts.

Observations made in the process of calling that are worthy of mention are:

1. All but one of the superintendents have a short tenure of one to three years in the district.
2. All but two superintendents indicated by their answers given that they were not conversant about the A160 requirements.
3. One superintendent did not understand what preparation in a minor field meant.
4. Unit districts under one school board have less problems meeting staffing concerns than dual districts of the same size. Dual districts usually have one high school board and one grade school board operating as separate entities. The superintendent may be common to both.
5. Part-time staff and long-tenured teachers solve the problem of cost and qualifications for those schools whose superintendents believed they meet state requirements.
6. None of these schools have yet been evaluated with the new A160 guidelines.
7. No innovative program was mentioned as a way of solving in-house problems.

Summary

A sampling of schools revealed that there are areas of concern in that all of the requirements cannot be met without excessive expenditures of money per pupil. Small school superintendents are short-term administrators in most cases and a significant number of these superintendents aren't conversant about the details of the state guidelines.

The grandfather clause allows older teachers to teach in several areas, such as agriculture and biology, or at least the state has not enforced semester hour requirements in these situations in the past. However, as replacement teachers are employed, no one teacher can replace the older teacher in areas such as business, agriculture, and industrial arts.

The "shoulds" are often interpreted as a license to meet the standards only in a minimal way. Most, if not all, districts have teachers who are teaching more than one course in their minor fields. All of the superintendents who were contacted felt that seventy-five percent of the courses would be taught by teachers' teaching in their major fields. Superintendents' not being cognizant of what their teachers' qualifications are, or even what is interpreted as being a minor field, brings up further areas of concern, such as: "Are small school administrators informed as to state requirements?" and "Are they capable of interpreting the state requirements?"

Area vocational centers have offered the small schools the opportunity to increase course offerings. In-house innovation is not evident as a means of solving problems.

CHAPTER III

REVIEW OF LITERATURE ON MODELS

Introduction

"Much has been done in the area of needs assessment for urban students . . . More attention should be directed to rural youth now . . ."[1] The analysis of rural-urban differences could be the first step toward understanding the needs of rural students.

Do those who leave the community go prepared to attack the problems of employment and living in the metropolitan areas? Are the schools preparing students to live productively in their own communities? Career and post-graduate training awarenesses are important; are they being met? All of these questions need to be answered for the small school. Stans infers that little has been done in these areas of concern about the rural school.

Technological changes, organizational changes and changes in patterns of instruction are some of the transformations on the education scene today. The rural school,

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[1]Stans, "Issues in Rural Education: Student Needs," p. 1.

many times being small in student population, cannot always adapt these changes to its situation.[1]

Reviewing models will reveal answers to some of these questions. The models reviewed include those for larger schools as well as smaller schools and those not necessarily designed with size in mind.

Fincher, in discussing planning models, makes a distinction between efficiency and effectiveness types of models. The former is described in terms of input-process-output resulting in a measure of efficiency as opposed to the effectiveness model which can only approximate a mathematical equation. The effectiveness model is based on:

1. Objectives that can be stated in terms of accomplishment;
2. Different strategies that are available; and
3. Outcomes that can be stated in measurable terms.[2]

The various process models are couched in unique terms and list a variety of steps involved in the process similar to Kratz's process model as follows:

1. Preplanning
2. Organizing
3. Establishing assumptions and premises

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[1]Ibid.

[2]Cameron Fincher, "Planning Models and Paradigms in Higher Education," Journal of Higher Education 43 (December 1972):760-63.

4. Obtaining data
5. Evaluating data
6. Selecting a course or courses of action
7. Control
8. Approval and implementation[1]

Educational model planning has evolved into the process approach emulating the scientific methodology: formulating hypotheses, controlling variables, interpreting data, defining operationability and experimenting.[2] Of course, the educational methodology takes on a uniqueness of its own. Educational Program Planning and Budgeting Systems (EPPBS) is a contemporary example of an educational process model. The Trenton schools include this process model as only one phase of their system for Trenton's educational planning. Trenton's plan is comprehensive and could be said to thrust toward effectiveness measurement rather than efficiency measurement, although a sub-efficiency model is a phase of their plan.[3]

Fincher is concerned with describing various levels of educational planning. Effectiveness and efficiency concerns are only one type or level of planning. Substantive and expedient concerns are other types of planning

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[1]Robert N. Kratz, "Educational Planning," The Bulletin of the National Association of Secondary School Principals 56 (November 1972):29-31.

[2]Gerald H. Krockover and Lynn W. Glass, "Adding Process to Content," School Science and Mathematics 69 (April 1969):299.

[3]David E. Weischadle, An Educational Planning System (New Jersey: Trenton Public Schools, 1972).

with substantive placing emphasis on educational policy matters and specific priorities among program and curricula, methods of instruction, faculty selection, student admissions, finances and facilities. Expedient planning is concerned with such issues as campus size, types of institutions, cost of instruction, space utilization, class size and student-faculty ratios. More evidence of expedient planning exists than substantive planning.[1]

The models described in this chapter do not necessarily fall into an either/or category as described above. Neither are they necessarily process models; however, the models described tend to be "effective" oriented and "substantive" in nature.

The literature on small schools is voluminous in that ERIC/CRESS has become a repository for information in this area of concern. Although the information on small schools is generous, process models are not reported in abundance. If one would take into consideration reportings of changes occurring on a minimal systematic way, there are instances where process models are reported. An example of a process model plan that is specifically designed with the small school in mind lists the steps taken to develop the model as follows:

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[1]Fincher, "Planning Models and Paradigms in Higher Education," pp. 757-58.

1. Invention
2. Diffusion
3. Decision
4. Adoption-rejection
5. Consequences[1]

Fiebiger, reporting on the class schedule in Charlo, Montana, presents another example of process reporting. Student and faculty were described as being involved with the planning operation and evaluation of a rotating modular schedule. Their concept of process planning is as follows:

1. Identifying a solution idea
2. Orienting teachers on an individual basis
3. Comprising and modifying solution idea
4. Implementation
5. Evaluation (teachers and students)
6. Acceptance or rejection[2]

Much of the literature merely reports on certain aspects of the curriculum and organizational patterns with descriptions of the elements of the models. ERIC/CRESS has printed many examples of these kinds of models. Many types of schedule models are described. On-sight sources where one could see the schedules in operation are reported and bibliographies are included to form a manual for the

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[1]Everett D. Edinton and Jane Mullesman, Proceedings of a National Conference on Solving Educational Problems in Sparsely Populated Areas (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 029 164, 1969), p. 30.

[2]Leo J. Fiebiger, Charlo Class Scheduling Plan (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 072 904, 1972), pp. 1-3.

administrator of a small school who wants to investigate scheduling.[1]

Kreitlow and MacNeil have built upon Goodson and Hammes' change-agent concept and have designed a way of coping with challenges posed by such questions as:

1. By what process do teams of change agents identify changes?
2. By what process do they decide to institute change?
3. By what processes do they implement changes?[2]

Kreitlow and MacNeil's model utilized the elements of a Guba and Clark Schema that developed an adoption process applied to organizations and groups. This process bridges the gap between theory and practice. The Guba and Clark Schema identifies the following four stages:

1. Research
2. Development
   a. Invention
   b. Design
3. Diffusion
4. Adoption

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[1]James E. Heathman and Alyce J. Nafzinger, Scheduling for Flexibility: A Manual for Administrators of Small Schools (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 056 820, 1971).

[2]Burton W. Kreitlow and Teresa MacNeil, An Evaluation of the Model for Educational Improvement as an Analytical Tool for Describing the Change Process (Madison, Wisc.: The University of Wisconsin; Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 030 197, 1969), pp. 1-2.

The schema is multi-dimensional and includes for each of the above stages, three strata as follows:

1. Criteria
2. Relation to change
3. Objective[1]

Models

Smallway Model

Leggett and others have developed a model for a high school with a maximum of 250 students and ten to twelve teachers. The staff ratio for 200 to 250 students would be: 17-20:1. The teacher's role becomes primarily that of a facilitator. Individualized instruction accommodates the gifted and interested students. Teacher talents considered when selecting staff are as follows:

Artist
Communications and literary expert
Home economics specialist
Language instructor
Mathematician
Musician
Scientist
Social scientist
Technologist
One or two teachers in athletics

As a result of hiring generalists, in-house staff is supplemented by specialists in the community who are utilized as resource people.

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[1]David L. Clark and Egon G. Guba, "Understanding Social Change," SEC Newsletter I, No. 2 (1965):1-4, cited by Burton W. Kreitlow and Teresa MacNeil, An Evaluation of the Model for Educational Improvement as an Analytical Tool for Describing the Change Process, pp. 1-2.

Phasing, of course, allows for offering certain courses on only a two or three year cycle. Short term mini-courses are part of the design. A non-graded approach in skill courses allows for those with varying abilities and speeds of learning to have their needs met. Uncommitted time allows for independent study, student-teacher meetings, open labs, etc.

A modular schedule is the heart of this particular model. Teaching blocks are incorporated in such a manner that preparations for any one day are held at a minimum.[1]

NASSP Model Schools Project

The NASSP (National Association of Secondary School Principals) model has been implemented with thirty-four schools participating initially. Although concepts are gleaned from old ideas, this model is distinctive in that it attempts to change all aspects of the school program. The purpose of this model as stated by the authors, is "to help anyone in any place to improve the quality of teaching and learning. The basic requirement is to know where you are going, that your educational goals are clear."[2] The

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[1]Stanton Leggett, Arthur Shapiro, Aaron Cohodes and C. W. Brubaker, "The Case for a Small High School," Nation's Schools 86 (September 1970):45.

[2]J. Lloyd Trump and William Georgiades, "Doing Better with What You Have: NASSP Model Schools Project," The Bulletin of the National Association of Secondary School Principals 54 (May 1970):106.

result emanating from this model is a more humane school because each individual receives more attention. The elements of the model are as follows:

1. Listing basic goals
2. Stating characteristics of program in areas of administration, staff, teaching-learning modes, curriculum, inservice and evaluation procedures.
3. Underlying conditions such as:
   a. Commitment to goals
   b. Evaluation of program by all concerned
   c. Community involvement
   d. Developing time parameters
   e. Limiting publicity during embryo stage
   f. Insistence on self-study and professionalism[1]

Broady and Broady's Model

In Chapter Four of Administration of Small Twelve-Grade Schools, the Broady's present a model as follows:

1. Multiple classes in areas of commonalities such as foreign language, bookkeeping and business math, and science classes. This leads to individualized instruction where there is a low pupil-teacher ratio.
2. Independent study utilizing supervised correspondence study, programmed materials and teaching machines.

[1]Ibid., pp. 106-133.

3. School aides for typing and other clerical work.
4. Shared services with regional or area schools.
5. Flexible scheduling - Fifteen 28-minute modules allow for varying lengths of class meetings that can be scheduled on a weekly basis. Independent study time is provided in this schedule.
6. Advanced placement through testing allows a gifted student to take college level work through correspondence or independent study.[1]

Charlo Rotating Class Schedule

A schedule modification developed through cooperative efforts of students, teachers, and administration consists of a 75-minute period followed by two 60-minute periods in the morning and four 45-minute afternoon periods. This schedule is designed for 125 students in grades 9-12 and only nine teachers. The schedule modules are rotated in such a manner that the last class of day one would be the first class of day two. The reported favorable aspects of the schedule are:

[1]Broady and Broady, Administration of Small Twelve-Grade Schools, pp. 47-75.

1. Longer periods in the morning when students are more alert.
2. No class is placed in an unfavorable hour for the entire year.
3. Interruptions of schedule do not constantly affect the same class.
4. Morale of teachers and students was constantly uplifted.

The reported negative aspects of this model were:

1. The 75-minute modules presented difficulty in planning.
2. Long-range planning is difficult.
3. Difficulties were experienced in adjusting to an ever-changing schedule.
4. Work-study programs were not coordinated with schedule.
5. Shared facilities with elementary school required close coordination.[1]

External High School Diploma, New York Plan

This is a traditional system for validating the external high school diploma. This system consists of a panel of certified teachers and specially qualified outsiders working individually or on panels who judge the

[1]Fiebiger, Charlo Class Scheduling Plan.

skills or portfolios of accomplishments. Local and regional administrative machinery is utilized. The requirements for this plan are:

1. Basic Skills: Achievement of a minimum level of reading and computational skills as measured by criterion-referenced tests; ability to communicate effectively in writing or through some combination of writing and other visual media.
2. General Knowledge: Knowledge in several fields of learning considered important to the individual's entry into the larger community in which he will live his life.
3. Social and Political Skills: Knowledge of the individual and social consequences of personal and group behavior, including the knowledge of how individuals and groups relate to political institutions and processes in the American system.
4. Personal and Career Planning Skills: Ability to identify alternative futures—both occupational and personal terms—and to select among these.

The curriculum for this program is divided into the following two areas:

1. Learning Situations: Widely diverse types are used—from work experience to adult classes at night.
2. Learning Experiences: Written reports to multi-media presentations can be utilized. Independent research of local agencies through supervised study could be incorporated.

Evaluation is done with existing tools such as GED exams, on-the-job evaluation, prepared exams, etc. which are utilized.[1]

The Jesser and Stutz Model

This model identifies three phases of curricular change: exploration, development, and then the operational phase. The first stage describes the initial stage as exploration with a decision-maker usually being the administrator; however, this is not done unilaterally. Teachers, board, lay people and students should be involved with the tentative decision concerning change.

During the exploration stage, inservice occurs and faculty and others visit other schools. Resource

[1]Stephen K. Bailey, Francis U. Macy, and Don F. Vickers, Alternative Paths to the High School Diploma (Syracuse: Syracuse University Research Corporation, The Policy Institute, 1973), pp. 25-33.

people are called in concurrently. The second phase then begins with more finite planning such as a needs inventory, further inservice and decision making. The third phase is the implementation stage.[1]

Schools Without Walls (Philadelphia Parkway Program)

Originally in 1969, 143 students were randomly chosen to participate in the Parkway Program. Freedom from limits of any one building is the unique feature of this design. Away from school experiences occur with follow-up of group discussions or a student may be involved in what is called a tutorial unit. The philosophy is that there are a million ways to learn. Other schools without walls have been established in Chicago, Boston, New York City and Madison, Wisconsin.[2]

Mini-Schools

Large cities such as New York and Berkeley, California, have developed mini-schools to accommodate the varied interests and needs of the student body of the

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[1]David L. Jesser and Rowan C. Stutz, eds., Scheduling for Flexibility (Salt Lake City, Utah: Western States Small Schools Project; Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 021 657, 1966), pp. 1-20.

[2]Douglas Watson, Alternative Schools: Pioneering Districts Create Options for Students, pp. 14-17.

respective districts. The following two schools are located in New York City:

1. Wingate Prep

   This school is specifically designed for students who cannot function in a large, impersonal school. One hundred-twenty students were enrolled in September, 1972.

2. The Irving Place Academy

   This is an all-girls' school with 120 high-risk ninth and tenth grade students. An individualized program fitted into a shortened day is tailored for the students' short attention span. The teachers also play a counselor role.[1]

The Berkeley Board of Education has developed the following concepts of mini-schools for their school system:

1. Agora

   Student say-so is the heart of this program. Two full-time teachers, one half-time teacher and teacher assistants work with seventy students.

2. Alliance-Black House

   Students serious about studies that would lead to a resolution of the problems of

[1]Ibid., pp. 20-21.

black people are admitted to this program. Seventy students are involved in grades 9-12.

3. Alliance - Casa del la Raza

A family concept is developed here. Chicano culture threads through the curriculum for eighty-five students in K-12 grades.

4. Berkeley College Preparatory

One hundred-fifty students in grades 10-12 are involved in studies designed to build college survival skills.

5. East Campus

One hundred seventy-five 9-12 students who could not or would not cope with the regular program work with teachers who also serve as counselors. The goal is for students to develop a mechanism for coping with themselves and society.

6. Garvey Institute

Sixty 9-12 students are involved in mastering at least one skill. They have missed the basic skills and need to grow in pride of themselves and to learn the measure of their own worth.

7. Genesis

A changing concept for one hundred-sixty grade 10-12 students is the hallmark of

Genesis. To create and to do one's own thing is characteristic, although mastery of math and reading has evolved.

8. Model A

The unfreezing of subject matter to run through the theme of the study of man is the goal. Four hundred grade 10-12 students are involved.

9. On Target

Careers and occupations are explored by one hundred-forty grade 10-12 students by taking field trips and being involved in other experiences from test-taking to listening to speakers.

10. School of Arts

Opportunity to explore and develop creative processes by these two hundred-twenty grade 10-12 students assists them in developing artistic lives. A mutual interest is found in an arts-centered curriculum.[1]

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[1]Berkeley Board of Education, Experimental Schools Program (Berkeley: Berkeley Unified School District, 1972).

Summary

Process model designs for the small school are few in number. The Smallway Model is a rather complete model involving the curriculum, staff and organizational needs of a small school; however, it is not a process model.

The NASSP Model is assumed to be adaptable to a small school. Large school systems have developed mini-schools to meet specific needs of groups of students.

CHAPTER IV

OPERATIONAL INSTRUCTIONAL SCHEMES

Introduction

The Smallway Model relies on a changed teaching role and rarely-used patterns of instruction. Dimensions of change are required other than adding courses and personnel when educational modeling involves stating goals that must be implemented with limitations. The small school is usually limited in financial considerations and facilities. One must consider the small number of students available for the designed schedule and course offerings as a limitation.

The teaching-learning schematics that are available to the model builder are discussed in this chapter as are the organizational patterns that facilitate the implementation of the teaching-learning process. The discussion of both of the above is not intended to be comprehensive. Only those elements found in the literature on small schools and those that are feasible in central Illinois are reported.

Teaching-Learning Schematics

The Lecture Method

Research on the lecture method is voluminous. Bone, Spence, Brija and others have studied the lecture as a teaching method and have made comparisons between the lecture and discussion methods. The lecture is considered effective in achieving the objective of teaching knowledge, especially in disseminating information: i.e., facts, figures, opinions and the like. The same knowledge, however, may be learned by reading a textbook or other source.[1] Lecturing may save the learner's time if the lecturer is selective as to the knowledge he is attempting to impart and, ordinarily, if he is effective as a speaker. Contrariwise, the lecture method is a passive one insofar as the learner is concerned. Unless the lecturer has some attractive quality in his delivery, organization, his personality or even his personal prestige, the hearer may not react at all. The lecture method of itself does not necessarily affect the behavior of the hearer except perhaps only superficially.

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[1] W. J. McKeachie, "Research in Teaching: The Gap Between Theory and Practice," in Education for What?: Readings in the Ends and Means of Education, ed. by Charles H. Monson, Jr. (Boston: Houghton Mifflin Company, 1970), pp. 338-39.

The Discussion Method

The discussion method is believed to be superior to the lecture in achieving the more complex cognitive and attitudinal objectives. Activity--intellectual, emotional, or even physical--that discussion generates was found to be a more effective way to learn than the passive listening of the lecture method. In the latter the intellectual activity presumably sought was not measurable except through overt behavior of some sort, and its presence was uncertain. As between the two methods, discussion was found to be superior.[1]

Motivation of student learning seemed to improve with discussion that centered around questions of the discussants.[2] Change of behavior regarding social issues and the like possibly can best be achieved through discussion in that change is apparently easier on a group basis than it is for individuals.[3]

Teacher-Facilitator Concept

Rogers is a proponent of what may be called the "non-teacher teacher." He does not believe the teacher

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[1] Ibid., pp. 340-41.

[2] D. E. Berlyne, Conflict, Arousal, and Curiosity (New York: McGraw-Hill Book Company, 1960), p. 219.

[3] K. Lewin, Field Theory in Social Science (New York: Harper and Brothers, 1951), p. 150.

can teach anything worthwhile; the student learns worthwhile things. The teacher can only facilitate the student's learning by being a warm, empathetic, trusted individual who may in one instance act as a resource and in another instance be a motivator. Rogers' concept of the learner-centered instruction involves such elements as the teacher facilitator's having empathy, gaining the trust of students, and other such subliminal elements not always stressed in becoming a successful teacher.[1]

There are variations of student-centered learning such as non-directed (Rogers' variety), group-centered and democratic discussion.[2] These are all break-away attempts from the traditional teacher-centered or dominated instruction. Whether it be the individual who is taken up with the "existential moment" or the group which has planned a cooperative project designed to be carried out by them cooperatively, the teacher is in the background. The Summerhill concept is an example of such as approach.[3] If one stresses outcomes other than that of

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[1]Carl Rogers, On Becoming a Person (Geneva, Ill.: Houghton Mifflin Company, 1961), pp. 275-278.

[2]McKeachie, "Research in Teaching: The Gap Between Theory and Practice," p. 342.

[3]Alexander Sutherland Neill, Summerhill: A Radical Approach to Child Rearing (New York: Hart Publishing Company, 1961).

knowledge acquisition, then it is more likely that student-centered learning will prevail.[1] Leggett and others have included this in their model design.

Programmed Learning Schemes

"School experience and psychological experiments both strongly support the need to design teaching techniques that will cater to capabilities of individuals."[2] The fact that students differ in learning abilities and rates of learning is one important factor to consider. Programmed learning as well as other individualized approaches adjust to this factor.

Sophisticated, programmed material also accommodates differing modes of learning. Mager's book, Preparing Instructional Objectives,[3] is a simplified example of this concept in practice.

Other Individualized Instructional Approaches

Individualized education has many varied forms. Pittsburg's Oakleaf Elementary School has a project

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[1]McKeachie, "Research in Teaching: The Gap Between Theory and Practice," p. 343.

[2]Andrea G. Burton, "An Educational System Analyzed," in An Introduction to Education: Selected Readings, ed. by Marjorie Mitchell Cann (New York: Thomas Y. Crowell Company, 1972), p. 253.

[3]Robert Mager, Preparing Instructional Objectives (Palo Alto, Cal.: Fearon Publishing Company, 1962).

entitled "Individually Prescribed Instruction."[1] This is a form of programmed instruction.

Several universities and independent organizations encourage learning through correspondence courses, a form of individualized instruction. The University of Nebraska and the University of Tennessee are examples of colleges offering correspondence courses. The American School is one of the older correspondence schools. The National Association of Secondary School Principals Model Schools Project recommends the correspondence learning mode as an alternative curriculum pattern.[2]

The American School contracts on an individual basis for credit, but a variation of this occurs where there is cooperation with the local school when a student takes a course. The school then employs a local instructor who supervises study as well as the tests.[3]

Teacher-made independent study material is a growing concept, and there are many examples of teacher-made materials. Some of these materials produced by local

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[1] Diane Divoky, "Individually Prescribed Instruction," Nation's Schools 74 (November 1969):44-46.

[2] L. Lloyd-Trump and William Georgiades, "Doing Better with What You Have: NASSP Model Schools Project," p. 117.

[3] Supervised Correspondence Study: At Your Service (Chicago: American School, n.d.).

teachers can be seen at Washington Elementary School in Wheaton, Illinois. Some studies on independent study indicate little or no difference in learning when compared to the results from other methods.[1]

Laboratory Learning

Trial and error and designed discovery are among the characteristic processes of laboratory learning. The period of trial and error in laboratory learning can be shortened in some instances by showing films, demonstrations and other methods. "Medical students thought that films and programs could be used to replace both laboratory and demonstration periods . . ."[2] Laboratory work need not be individual to be effective. According to Downey, two or more may work together and achieve the same results in learning concepts, processes, etc.[3]

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[1]Norma V. Scheidemann, "An Experiment in Teaching Psychology," Journal of Applied Psychology 13 (1929): 188-91.

Charles R. Atherton, "Lecture, Discussion and Independent Study Instructional Materials Revisited," Journal of Experimental Education 40 (Summer 1972):27.

[2]W. T. Stickley, The Evaluation of a Film Program Technique for Self-instruction in Medical Pharmacology, University of Washington Dissertation Abstracts 25 (Ann Arbor, Mich.: University Microfilms, Incorporated, OP 4462, n.d.).

[3]W. J. McKeachie, "Research in Teaching: The Gap Between Theory and Practice," p. 350.

Assigned Reading Techniques

Little literature was found to isolate and evaluate assigned reading as a scheme; however, it is an integral part of the current teaching process.[1]

Technological Innovation

Computers have been developed such as those used in PLAN (Programmed Learning According to Need) to analyze and program an individual's work.[2] Teaching machines are being manufactured by the multitude, from simple to complex. Readers and programmed material are examples of these. The invention of the cassette tape recorder and player has opened up a whole new world of opportunities. This has produced an array of books, textbook series, films, audio and visual tapes and microforms.

Computer-assisted instruction and records have been commercially produced to enhance or to completely direct a student's individual instruction.[3] Educational television is still struggling in some areas to be an effective teaching mode. Small schools and rural schools find hope in

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[1]Chris A. DeYoung and Richard Wynn, American Education (New York: McGraw-Hill Book Company, 1972), p. 368.

[2]Ibid., p. 386.

[3]Stephen K. Bailey and others, Alternative Paths to the High School Diploma, p. 48.

the fact that these technological advances improve the curriculum.[1]

Organizational Patterns for Teaching-Learning Schematics

Team Teaching

Goodlad states that ". . . team teaching opens up the school to further innovation; in school building design, personnel utilization, teacher education, programmed instruction, educational guidance and computer use."[2] Several types of team teaching structures have been identified, including:

1. Team leader type: One person is designated as leader and co-teachers are considered either as subordinate teachers or peer teachers.
2. Associate type: Two or more teachers join together as colleagues.
3. Master teacher - beginning teacher type: One teacher is a leader and more expert professional with the co-workers being less expert and subordinate to the master teacher.[3]

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[1]Robert E. King, "New Technology and the Smaller Secondary School," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):29.

[2]John I. Goodlad, "Thought, Invention, and Research in Advancement of Education," The Educational Forum 33 (November 1968):13-14.

[3]Paul R. Mort, "The Middle Ground Hypothesis," taken from an occasional paper, Columbia Teachers College, Columbia University, n.d.

A set of criteria that allows one to measure whether an organizational pattern is team teaching or not was established by Mort. The pattern:

1. Must involve a sufficient number of students;
2. Is of sufficient length of time;
3. Has instructional objectives in order to sufficiently permit some type of formal evaluation.[1]

Mort defined team teaching as follows:

> Team teaching is a type of organization, involving teaching personnel and the students assigned to them, in which two or more teachers are given responsibility, working together, for all or a significant part of the instruction of the same group of students.[2]

Davis states that one of the prime reasons for adopting team teaching is to improve staff utilization and thus presumably to improve instruction.[3]

"Differentiated staff" may be considered as a separate variation of the team teaching system. One usually thinks of differentiated staffing in hierarchial terms with staff members with degrees of competency and responsibility; however, the staff can be made up of a team of

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[1] Ibid.

[2] Ibid.

[3] Harold S. Davis, "Organizing an Effective Team Teaching Program," in An Introduction to Education: Selected Readings, ed. by Marjorie Mitchell Cann (New York: Thomas Y. Crowell Company), p. 260.

peers.[1] According to Colman and Budahl, team teaching, though existent, admittedly poses no real threat to the one-teacher classroom.[2] Small schools can perhaps utilize the scheme in the area of fine arts.

Multiple Classes

When more than one subject area or varied sequences of the same course are taught in the same room at the same time, it is considered to be a multiple class. Multiple classes are not widely advocated nor discussed in literature.

The Catskill Area Project in Small School Design and the Western States Small Schools Project recognize the multiple class plan as a vehicle for expanding course offerings in a school having a small pupil-teacher ratio. Dr. H. H. Ryan, who was principal of the University of Wisconsin's Experimental High School, made reference to the plan as early as the 1920's.[3] Combinations of classes taught by one teacher such as the following are recommended:

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[1]Ibid., p. 269.

[2]Clyde H. Colman and Leon Budahl, "Necessary Ingredients for Good Team Teaching," The Bulletin of the National Association of Secondary School Principals 57 (January 1973):41.

[3]Broady and Broady, Administration of Small Twelve-Grade Schools, p. 14.

1. Intermediate algebra, trigonometry, advanced mathematics;

2. Art, shop, business;

3. French I, II, III.[1]

Through multiple classes, schools may combine several levels of foreign language classes, thus creating multiple classes. Schools with enrollments of four hundred or more are doing this in low-enrollment areas. The invention of the cassette and the invention of the language laboratory have facilitated this. Multiple classes are cited as an innovation by Merrill in his report on the Western States Small Schools Project.[2]

A disadvantage of multiple classes is that more intensive preparation is needed. Also, there is an urgent need for aids. The teacher must be inclined toward enjoying the stimulus of varied activities; however, the multiple class approach where only a few students are involved in each subject area will not overload a teacher in comparison to the load of from 100 to 150 students which many teachers in larger schools have.[3]

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[1]Alfred P. Wilson, Educational Innovations in Rural America (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 045 241, 1970), p. 31.

[2]Russell Merrill, "A Model Staffing Plan," The Bulletin of the National Association of Secondary School Principals 54 (October 1970):97.

[3]Broady and Broady, Administration of Small Twelve-Grade Schools, p. 47.

Modular Flexible Scheduling

Because some disciplines require more teacher instruction time or that certain other areas can release students for individual study, flexible schedules built on modules[1] have been developed with varying degrees of sophistication.[2] Small-group and large-group instruction can be facilitated through flexible scheduling.[3] Uncommitted time can be assigned through flexible scheduling. This plan has been recommended by some educational consultants.[4] The Smallway Model, as well as the models reported in the Western States Small Schools Project and other projects, includes flexible scheduling or an element of flexible scheduling.

Individualized Study

Individualized education can be spoken of in many, varied terms. Non-grading, the open classroom, programmed

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[1]Modules are defined here as time blocks of varying lengths.

[2]Daniel P. Shockloss, "Changing to Modular Flexible Scheduling," The Bulletin of the National Association of Secondary School Principals 57 (January 1973):79.

[3]Dwight W. Allen, "Innovations in Elementary and Secondary Education," in Criticism, Conflict, & Change, ed. by Emanuel Hurwitz, Jr. and Robert Maidment (New York: Dodd, Mead and Company, 1970), p. 392.

[4]Leggett and others, "The Case for a Small High School," p. 47.

instruction and independent study are related to individualized instruction.

Learning packages stating goals, learning modes, and evaluation techniques have been developed by staff members in the Oregon Small Schools Program. Completely packaged learning materials have been developed for a high school of one hundred in the area of English. Siletz High School of one hundred students and two English teachers have developed a non-graded program of 21 nine-week courses.[1] Goodlad sees a vertical progression with a criterion-referenced standard, meaning that progressive levels of learning must be mastered before moving on to higher levels. He believes non-gradedness has virtue because of this essential concept.[2]

Summary

Of the various delivery systems whereby one or a group of teachers produces an atmospshere in which students learn, lecturing is the oldest and perhaps still the prevailing mode. It is somewhat limiting in that acquisition of knowledge, especially the facts of information that are a part of knowledge, is the general result. Discussion is

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[1]Donald F. Miller, "The Oregon Small Schools Program," The Bulletin of the National Association of Secondary School Principals 54 (October 1970):81.

[2]Goodlad, "Thought, Invention and Research in Advancement of Education," p. 16.

believed to be a more effective producer of learning of a more complex nature.

Programmed learning and other mechanical modes, as well as assigned reading, are contemporary approaches to learning. These add the dimension of speed of learning that provides for individual learning. Correspondence courses and teacher-made systems are variations of this.

The modes of teaching can be organized in a variety of ways to further enhance the production and delivery of learning. Team teaching, of which planning is the heart and perhaps the essence of the resulting learning, is a contemporary organizational pattern. The multiple class plan can utilize one or more teaching schematics. Modular flexible scheduling and individualized study designs al. utilize other teaching-learning schematics. Technological advancements may enhance any of the plans.

CHAPTER V

ADVANTAGES AND DISADVANTAGES OF SMALL SCHOOLS

Schools with less than two hundred students are still in existence in the United States, especially in remote areas in the central to western states. In literature one can find postures advancing the cause of the small school and arguments against the small school. Little seems to have been done with statistical research over a significantly long period of time substantiating the claims of either viewpoint.

A public credibility gap perhaps is a most serious handicap to the proponents of a small school since our society seems to equate efficiency with largeness.[1] Yet, Carleton states, "There's no reason why a small high school--even one with an enrollment under one hundred--should necessarily be a poor school."[2]

Resources such as software for audio-visual equipment and the audio-visual equipment itself are costly in

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[1]Leggett and others, "The Case for a Small High School," p. 52.

[2]Linus J. Carleton, "The Problem of the Small High School in the Northwest Association of Secondary and Higher Schools," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):104.

proportion to the number of students.[1] The cost per pupil is perhaps the clearest evidence for a case against small secondary schools. In the New England region a comparison of cost clearly revealed the cost of education per student increased as the population of the school decreased.[2] Cronin states that in the 1970's laymen will refuse to pay the bill for small schools and that federal programs with incentives will produce considerations toward consolidation.[3] Also, teachers and administrators who desire a more manageable organizational pattern and who desire more humane working conditions will influence decisions on school size.

The argument heard often is concerning transportation costs. The Ohio School Board Association investigated this concern and discovered that when school districts reorganize, transportation costs do not rise any faster than other costs.[4]

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[1]Leggett and others, "The Case for a Small High School," p. 52.

[2]Gregory R. Anrig, "The New England Association of Colleges and Secondary Schools and Accreditation of the Small Secondary School," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):95.

[3]Joseph M. Cronin, School District Reorganization for the 1970's (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 017 039, n.d.), p. 6.

[4]K. C. DeGood, The Myths of Reorganization (Columbus: Ohio School Boards Association; Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 020 036, 1968), p. 5.

"Schools are designed to do many things for many students." If this theory can be accepted, the small school's limited curricular and extra-curricular offerings violate this. Lack of curricular depth and administrator's with little experience as full-time administrators present reasons for doubting the quality of a small school.[1] Barker, however, states that one cannot assume that rich curriculum, varied extra-curricular activities and good facilities necessarily mean rich experiences for students. He discovered that students in small school settings participated more, assumed leadership roles more and utilized a variety of courses more often; furthermore, the students in small school settings were involved in community life more.[2]

Small schools are notorious for placing many demands upon teachers by assigning them several classes and many different preparations. There are probably more extra-curricular expectations of a teacher in a small high school.[3] Schools in the 100-199 student population range

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[1] A. W. Sturges, "The Upper Midwest Small Schools Project," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):73.

[2] Barker, Big School-Small School, pp. 72-73.

[3] Thomas F. Gallant and Larry J. Zimmer, "Teaching in the Smaller Secondary School: Its Demands and Opportunities," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):12-13.

are restricted in the number of course offerings because of limited staff and facilities. The staff is utilized to its maximum in order to provide as many offerings as possible. The typical school of the above size range would offer forty-one units of instruction.[1]

It has been said that a high school should offer 3.2 times as many courses as are required for graduation if the youth entering the labor field are to have as adequate an opportunity as the one provided for youth entering college. Thus, if seventeen courses are required for graduation, about fifty-four should be offered.[2]

Restricted course offerings is a serious deficiency of many small schools. Many lack two years of foreign language, fine arts, and little or no guidance services. One section of English and few electives are common.[3] The mini-course concept modifies this criticism to a degree. "A huge program based on and tailored to the needs of students is feasible."[4] This is achieved through mini-courses,

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[1]Gordon Cawelti, "Small Secondary Schools of the North Central Association," The Bulletin of the National Association of Secondary School Principals 50 (February 1966):86.

[2]W. D. McClurkin, Rural Education in the United States (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 043 408, 1970), pp. 7-10.

[3]Oliver, "The Smaller Secondary School and Accreditation in the Middle States Association of Colleges and Secondary Schools," p. 110.

[4]Leggett and others, "The Case for a Small High School," p. 52.

independent learning and utilization of community resources. One would think that teachers in small schools, being scheduled to the maximum potential and being required to make several different preparations, would be concerned about the matter. Ford discovered these teachers were not so concerned about this as they were about the lack of material.[1]

A teacher's being a generalist with a broad background of subject matter has its advantages in that he would tend to be less restricted in his outlook and be more apt to be cooperative with other teachers. This situation would place the teacher in close contact with the students, allowing him to see them from a new perspective. The teacher in a small secondary school experiences independence and freedom. Fewer curriculum guides may evolve but the teacher may develop a program unique to his teaching style.[2]

A longitudinal study comparing student achievement in reorganized and non-reorganized schools indicates that those students in the reorganized schools scored higher

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[1]Paul Ford and others, Remote High Schools (Portland, Ore.: Northwest Regional Education Laboratory; Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 012 208, 1968), pp. 8-9.

[2]Gallant and Zimmer, "Teaching in the Smaller Secondary School," pp. 12-14.

when given school achievement tests.[1] Programmed material is found to be recommended and used by many small schools to individualize and increase course offerings. Loss of effort towards completing course work through programmed material in an individualized way was found to be steady and substantial in one study. The students in this study were identified as high achievers.[2]

Teachers know each student by name in the small school and every student is needed to operate the various activities of the school, thus student self-esteem seems to be higher in small schools. Also, ineffective teachers can be more easily identified and provided with help.[3]

Summary

Literature on small schools abounds; however, little research has been reported. It is common that "what is" seems to be reported as opposed to "what should

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[1] B. W. Kreitlow, Long-Term Study of Educational Effectiveness of Newly Formed Centralized Schools in Rural Areas, Part II. (Madison, Wisc.: University of Wisconsin; Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 002 857, 1969), p. 10.

[2] Programmed Instruction for Superior Students in Small High Schools: Interim Report for Project Year No. 1 (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 010 269, n.d.).

[3] Jack B. Schoenholtz, "Small High Schools--Panacea or Malignancy?" Phi Delta Kappan (May 1972):578.

be."[1] Models have been developed for small schools in large numbers if one would consider a report on a small segment of the school enterprise such as scheduling as being a model. Comprehensive models are not reported extensively nor are the process type models. Models in general can many times be applied to either small or large schools with slight modification.

Most educators who comment on the merits of a small high school with less than two hundred students agree that there are advantages and disadvantages to a small high school. Cost is a glaring disadvantage as is the teachers' not teaching in their fields of expertise. Student participation and close teacher-pupil interaction are often mentioned as strengths of the small school. In one study the students in Wisconsin who attended reorganized schools attained higher test scores on their achievement tests than their counterparts in non-reorganized schools. Little research of this kind is found to support or reject the small-school concept.

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[1]G. L. Oliver, A Technological Rationale for Curriculum and Instruction (Las Cruces, New Mex.: ERIC Document Reproduction Service, ED 031 774, 1969), p. 27.

CHAPTER VI

THE MODEL

Objectives

The basic purpose of this conceptual model which follows is to engineer a design--in which curriculum, staff, and organization are elements—for which a small high school with an enrollment ranging from less than one hundred students to not more than two hundred students can provide a satisfactory program of education for secondary-school pupils as measured by the A160 document and local student goals. This is to say, also, that at least minimal requirements are to be met. The structure of the model will:

1. Be a design reflective of a small school which is unique, rather than the large city school.[1]
2. Be practical and operational.
3. Provide the basic educational opportunities identified in the A160, Chapter VI.[2]

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[1]Broady and Broady, Administration of Small Twelve-Grade Schools, p. 10.

[2]Illinois, The Illinois Program for Evaluation, Supervision and Recognition of Schools, pp. 15-25.

4. Provide for the student who is in the normal or regular program.

5. Accommodate stated student goals.

The model will be developed by synthesizing the various elements known to exist in educational practice that will produce a model with elements meeting the following criteria:

1. Can flexibility be considered a feature?

2. Can a staff of twelve or thirteen teachers readily adapt to this concept?

3. Is the cost reasonable for such a budget as a small school could create?

4. Is there an authority in the field who considers the identified concept valid and worthwhile?

5. Would this concept facilitate the goals established by the community for the instructional program?

This model will fulfill the design aspect of the Guba and Clark Schema, described in Chapter III. The exact positioning of the model can be said to be located at the design element stage of the relation to change level. That is, the model reflects the engineering and packaging role of an educational invention as opposed to designing a criteria model or developing a dissemination model that proposes a method of informing the educational community of the invention. This type of model design

calls for fashioning the solution into an acceptable and adaptable form. It engineers and packages the invention.[1]

Model Design

The model design will be developed from the student goals as established in the Rankin Program Plan[2] which was approved by the local school board and the Office of the Superintendent of Public Instruction. The following format for each of the student goals is the heart of the model:

1. Inventory of need
2. Statement of need
3. Performance objective
4. Implementation

Student Goal (Number One) - Develop a desire for learning now and in the future.

Inventory of need. Five to six percent of the students drop out before high school graduation. Fifty percent of the juniors and seniors surveyed indicated that the courses taken were not of interest to them. Only very few could recall from memory ninety percent of the courses they had taken the past three or four years. Fifty percent of the courses recalled were taken because they were required or to acquire enough credit for graduation.

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[1] Kreitlow, Long-Term Study of Educational Effectiveness of Newly Formed Centralized Schools in Rural Areas, pp. 1-2.

[2] Appendix I

Therefore, it is concluded that a significant number of courses are taken without forethought as to productive purpose.

Statement of need. The drop-out rate needs to decrease. Students need to select courses with a more direct purpose and the school climate needs to be one which encourages an enthusiasm for the school tasks.

Performance objective. The drop-out rate will decline to less than five percent; students will develop patterns of curricular choices that indicate a career or occupational goal; and a survey of student attitudes will produce replies indicating an improvement in personal satisfaction in the course areas chosen for study.

Implementation. Scheduled into a student's week will be periods of time whereby the student can choose independent study, teacher consultation, library work or just relaxation in a lounge area. Teachers will be scheduled to allow this. A phased modular schedule will be developed to accommodate this. A typical teacher will have five courses meeting three hours per week to lessen teacher preparation and daily load.

A counseling system will incorporate a career and occupation design leading students to first explore through orientation courses and first-year courses. Attempts will be made to produce commitments by the sophomore year, whereby the student selects an array of courses

that would vault him toward a career or occupational goal. A survey taken prior to implementation will be the basis of comparison and then a survey on attitudes is to be taken each year.

An inservice program designed to identify teaching styles will be ongoing. Teachers will be allowed to identify the style or styles they are using and they will monitor their actual teaching through the Verbal Pattern Analysis system and evaluate themselves. Awareness of whether a teacher is controlling student-teacher talk in such a manner as to allow a student-centeredness is the major goal of the Verbal Pattern Analysis system. Combining the awareness of teaching styles with a skill for measuring such, it is believed that teacher behavior will change and students will experience a more varied and motivating climate.

Student Goal (Number Two) - Develop skills in math, reading, writing, speaking and listening.

Inventory of need. Over fifty percent of the juniors and seniors are underachieving as measured by intelligence tests, achievement tests and course grades.

Statement of need. A criterion-based instructional method needs to be available in these skill areas with provision being made for alternative learning styles.

Performance objective. A criterion-based instructional method will be established for these curricular areas, as well as alternative modes of instruction.

Implementation. Programmed material will be purchased for these skill areas as an optional learning mode through independent study or through a designed Individually Guided Instruction Program.[1] An audio-visual program will be implemented where possible.

Teacher-centered courses will remain, but a set of measurable objectives or developmental learning objectives will be designed and students will be taught from these and will be evaluated by the same criteria. The guidance counselor will be responsible for identifying students with differing learning styles and will establish a program unique to the students' needs. Pupil personnel staff will be involved in the process. This includes the school psychologist, social worker, diagnostic teacher, nurse and others as needed.

Student Goals (Number Three and Number Four) - Develop pride in work and feeling of self-worth; develop character and self-respect.

Inventory of need. Through unobtrusive measures such as observations by guidance personnel, faculty members and administrators, it is deduced that a large minority

[1]Appendix III

of nearly fifty percent of the Rankin students exhibit feelings of low self-esteem and feelings of inadequacy, thus resulting in weak character which leads to little or no pride in themselves or in the work which they do. It is observed that these same feelings are rarely verbalized to the staff, even those who are considered to be in closer communication with the students than other members of the staff.

Some of the observations made are as follows:

1. Nearly fifty percent of the students working below grade level.
2. Students' comments such as:
   a. "I am going to get out of this area when I graduate. There is nothing here."
   b. "The teachers are to blame for my negative attitude." (or "poor grades")
   c. "The administrators don't care about us."
3. Lack of follow-through when making commitments as a class on class projects. (The same two or three students work with advisors and show up for work and if many show up, a large number do not participate in the activity.)
4. Destruction or multilation of school property.

5. Lack of team-work in team athletic events; persecution of those who try to excel above the norm.

6. Isolation of peers who excel academically.

Statement of need. A program needs to be developed that will provide planned opportunities for students to experience successes, share feelings and develop better self-images. A design needs to be structured whereby students will be scheduled according to individual needs and will be encouraged to communicate concerns about themselves.

Performance objective. More extensive guidance involvement will be provided for course selection and more alternatives with a wider range of courses will be made available. Sessions will be scheduled with the counselor whereby students are invited at times and scheduled at other times to become involved with the concerns of one's self. Opportunities to communicate this will be provided during these sessions.

Implementation. The counselor will meet on a daily basis with students to discuss areas concerned with self-image and to involve students in communicating their feelings. Volunteer involvement and scheduled involvement on behalf of the students will be arranged. The school social worker will periodically chair these therapy sessions. Mini-courses in English and individualized programmed courses will be designed.

Expositions, displays, contests and other varied activities will be organized to recognize student achievements. Students will be given recognition for participating in extra-curricular activities such as chess club, camera club, science club, etc. as well as for participating in the traditional athletic and music activities.

Student Goals (Number Five and Number Seven) - Learn to respect and get along with people with whom you work and live; learn how to respect and get along with people who think, dress and act differently.

Inventory of need. Rankin students are isolated from other cultural and ethnic groups. Those who have been on student exchange visits have questioned life styles of those they visited and have commented in such a way as to show evidence of lack of understanding of other life styles.

Statement of need. Students need to understand the sociological undergirdings of our culture.

Performance objective. The social sciences and humanities will purposely integrate the study of man and relate these learnings to contemporary situations. This will be done to a lesser degree in other courses.

Community and university resources will be utilized to guarantee other perspectives being brought into the classroom. An exchange student program will be implemented.

Student Goal (Number Six) - Learn how to examine and use information.

Inventory of need. Teaching modes generally practiced do not encourage active student involvement in learning. Observation indicated that a high percent of teaching is teacher-centered and results in the recall level of learning. Students rarely implement what is learned in school in a meaningful way.

Statement of need. More instruction needs to occur whereby students learn by discovery and are given a utilitarian purpose for learning.

Performance objective. Teachers will be given inservice as to the varied modes of learning. Attempts will be made to gain commitments by teachers toward student-centered learning and through inservice, teachers will learn to identify whether they are student-centered in their teaching style or styles.

Implementation. Inservice as indicated for the first student goal will help implement this. A commitment toward student-centered learning will be solicited for those areas of learning for which teachers feel this is best suited. Further inservice through the universities will be solicited for those teachers who indicate need or who cannot show how they implement this concept once they agree to it. The librarian will teach a mini-unit on library usage for freshmen and sophomores. A senior-level

English course will be developed, centered around the idea of writing research papers.

Elements of the Model

Classroom Learning Conditions

A prime element of the model is to enhance the teachers' tendency to be concerned about the student as an individual--his interests, his capacity, and himself as a unique person. Secondly, increased awareness through inservice will further help orient teachers to the concept of the micro-cosmic learner--one who seeks knowledge bit by bit, yet operates with whole universes of knowledge. He must do so by selecting appropriate bits of knowledge that help him piece together the jigsaw puzzle of learning. Not all of the pieces need to be a part of the learner's repertoire for him to see the complete picture, for the human mind can synthesize without completeness of the set.

Through inservice education, each teacher will be urged to play the role of facilitator--one who becomes a resource person, director of learning and who relates to the student to support the learning process. However, the uniqueness of each teacher will be recognized. These elements will be the heart of the attitudinal changes.

Teaching-Learning Schematics

The full range of teaching-learning schematics of which one could think might be in one way or another a

part of this model. In terms of the individual teacher and his professional world--the classroom--this is believed to be especially true. In the wider environment of the school--its designs and patterns--certain schemes will be purposely designed and emphasized or de-emphasized.

Lecturing will not be encouraged. Discussion will be encouraged to a small degree. The organizational pattern of the courses and teacher independence in most areas will leave limited control over the preceding two. The teacher as a facilitator will be strongly emphasized and especially in the areas of independent study, correspondence offerings, programmed learning, laboratory learning and multiple classes. Through the purchase of technical apparatus and games, individual learning and group learning will be encouraged and thus teacher-centeredness will be avoided.

Organizational Patterns

Departmentalized class schedule. A traditional schedule of classes will be offered for most areas. A slightly modified traditional schedule will be created to accommodate the joint vocational educational venture and will provide one extremely long period for certain other vocational offerings.

Independent study. A policy to encourage students to learn independently through commercial and teacher-made courses will be developed.[1]

Correspondence courses. Course credit may be earned towards graduation by correspondence. The courses and the number of courses approved are to be recommended by the guidance counselor and approved by the administrator.

Multiple classes. When low enrollment occurs in two or more areas in a discipline of study, the teacher will be encouraged to teach two courses simultaneously. This can occur in the traditional manner of the discipline or through a combination of traditional type classes, correspondence courses and/or independent study. (Example: A regular drafting course could be combined with a vocational supervised-correspondence study, such as bricklaying.) A written design to operate as a non-graded entity will be required for each multiple class situation using this format.

Team teaching. Although this pattern is possible as an option, it will not be built into the model immediately. When the appropriate personnel are available, it will be encouraged in the areas of the fine arts and physical education.

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[1] Appendix III

Credit by examination. A student may earn credit by means of an examination with the administrator's approval. A satisfactory test to measure competencies will be developed for each situation.

Course Offerings and Modes of Delivery

Course Offerings to be Scheduled on Regular Schedule

Language Arts

English I, II, III, IV - one unit each
(Four mini-units per year, with some required units for English I and II)

English I - Basic Grammar, Grammar I,* Basic Writing Skills,* Advanced Grammar II,* Types of Literature*

English II - Introduction to Poetry,* Communication Skills,* Advanced Composition, The Novel, Dramatics, Writing in Action

English III and IV - Introduction to Shakespeare, Mark Twain, Edgar Allen Poe, Russian Literature, Black Literature, Early American Literature, American Literature, The American Novel, Shakespeare II, Modern Poetry, Writing in Action II, Creative Writing, The Research Paper, The Romantics, 18th Century English Literature, World Literature, Modern American Literature, Independent Study, Horror Literature or Science Fiction

Science

General Science - one unit
(meets conservation requirement)
Biology I and II - one unit each
Chemistry - one unit
Physics - one unit

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*Required Unit

Mathematics

Pre-Algebra - one unit
Algebra I - one unit
Geometry - one unit
Algebra II - one unit
Advanced Mathematics - one unit

Social Studies and United States History

Civics - one unit
United States History - one unit
Geography - one unit
Sociology - one unit
Psychology - one unit

Foreign Language

Spanish I and II - one unit each
(Other languages via correspondence)

Music

Mixed Choir - one-half unit
Band - one-half unit
Individual Lessons

Art

Non-graded Art I, II, III, IV -
one-fourth unit each

Health Education

Health - one-half unit

Consumer Education

Family Living - one unit

Safety and Driver Education

Driver Education - one-half unit

Agriculture

Basic Agriculture - one unit
Agriculture Science - one unit
Agricultural Occupations - one-half unit
Farm Operations - one unit
Small Engines - one-half unit
Horticulture - one unit

Business

General Business - one unit
Typing I and II - one unit each
Bookkeeping I and II - one unit each
Shorthand - one unit
Secretarial Science - one unit
Business Law - one-half unit

Industrial Arts

Industrial Arts Orientation - one unit
Woods - one-half unit
Drafting - one-half unit
Electricity - one-half unit
Advanced Woods - one-half unit
Architectural Drafting - one-half unit
Electronics - one-half unit

Home Economics

Home Economics Orientation - one unit
Foods - one-half unit
Sewing - one-half unit
Child Development - one-half unit
Interior Decorating - one-half unit
Advanced Foods - one-half unit
Bachelor Living - one unit

Physical Education

Boys' Physical Education - one-fourth unit per year
Girls' Physical Education - one-fourth unit per year

Interrelated Cooperative

On-the-Job-Training - two units

Cooperative (Transport to local area center)

Health Care Cooperative - two units
Data Processing Cooperative - two units
Advanced Engines Cooperative - two units

Career Awareness

Career Awareness Course - one-half unit

Independent Study Courses

Any of the above courses, where considered feasible, may be arranged as independent study courses by teacher and student cooperatively, with guidance recommendation and administrative approval.

Individually Guided Instruction

The following program of courses are offered by using Rankin High School's developed guidelines and programmed texts:[1]

	Maximum Units
Composition	1
English Grammar I	1
English Grammar II	1
Basic Math	1
Power/Speed Reading	1
Speed/Power Reading	1
Spelling	1/2
Bookkeeping	1/2
Algebra I	1
Algebra II	1

Alternate Year Courses (Phasing)

These courses will be offered every other year unless enrollment dictates otherwise:

Chemistry	Biology II
Physics	Spanish I
Mechanical Drafting	Spanish II
Electronics	
Bookkeeping II	
Business Law	
World History	
Geography	

[1] Appendix III

If any students desire any of these courses when they are not available by means of the regular classroom instruction, they may take them by independent study or supervised correspondence.

Multiple Class Courses

Some courses lend themselves to two or more being taught at the same time. A non-graded, individualized approach can be used with cassettes or other programmed material. This is done where there are a minimal number of students involved in two or more courses and the teacher agrees that they can be taught in such a manner. The following courses could be taught as multiple classes:

1. Foreign languages
2. Foods and Advanced Foods
3. Sewing and Advanced Sewing
4. Drafting and Architectural Drafting
5. Bookkeeping and Typing
6. Algebra II and Advanced Math
7. Any low enrollment course and an IGI or correspondence course student

Faculty and Courses Taught

Only the courses to be taught in any one year will be listed for the students to select from. Alternate years would probably realign the teachers' teaching loads, assuming that students registered to some extent for the alternate courses. The following teaching areas and courses make up the academic curriculum:

English-Foreign Language Teacher

1. Eight English II and III mini-units
2. English IV
3. Spanish I and II (Multiple class)

Business-English Teacher

1. Four English II and III mini-units
2. General Business
3. Typing II
4. Bookkeeping I and II (Multiple class)
5. Secretarial Science
6. Business Law

Business-Girls' Physical Education Teacher

1. Typing I
2. Shorthand
3. Girls' Physical Education

Library-English Teacher

1. English I
2. Library and independent study coordinator assignments

Mathematics-Physical Science Teacher

1. Pre-Algebra
2. Algebra I
3. Geometry
4. Algebra II
5. Advanced Mathematics
6. Physics

Social Studies Teacher

1. Civics
2. United States History
3. Geography
4. World History

Driver Education-Health-Physical Education Teacher

1. Driver Education
2. Health
3. Boys' Physical Education

Agriculture Teacher

1. Basic Agriculture
2. Agricultural Science
3. Horticulture
4. Agricultural Occupations
5. Farm Operations
6. Interrelated Cooperative
7. Small Engines

Industrial Arts Teacher

1. Industrial Arts Orientation
2. Woods
3. Drafting
4. Electricity
5. Advanced Woods
6. Architectural Drafting
7. Electronics

Home Economics Teacher

1. Home Economics Orientation
2. Foods
3. Sewing
4. Bachelor Living
5. Family Living
6. Child Development
7. Interior Decorating
8. Advanced Foods

One-half Time Music Teacher

1. Band
2. Mixed Chorus
3. Individual Lessons

Science-English Teacher

1. General Science
2. Biology
3. Chemistry
4. English I

Guidance Counselor

1. Guidance
2. Career Awareness
3. Sociology
4. Psychology

One-fourth Time Fine Arts Teacher

Non-graded Art I, II, III, IV

Two Half-Time Administrators

1. Superintendent
2. Principal

Schedule

A typical schedule with varied period lengths to allow for vocational offerings will be used. A floater schedule can add to the number of classes that can be fitted on the schedule. This is done by teaching courses four days a week where fifty-minute time segments are provided on the regular schedule. The non-teaching days can be "floated" across the schedule, replacing the fifth non-teaching day.

How Model Meets Criteria

Criteria Number One - "Can flexibility be considered a feature?"

Flexibility in numbers served is met with this model inasmuch as from slightly less than one hundred up to two hundred students could be served without placing an excessive load on teachers and on the other hand, it would not make the venture more expensive. The schedule would support this criteria in that although only one section of each class would be offered, the courses would be accessible to a high majority of students. Vocational, laboratory and

physical education classes would benefit from longer class periods. The rotation of classes would provide for this by rotating classes by periods from Monday through Friday with shorter and longer periods built into the schedule.

Students would be provided vocational courses in the basic five areas; i.e., home economics, industrial arts, business, agriculture and allied health, in the traditional manner. Correspondence courses would expand on this further. Teacher-supervised correspondence courses would strengthen this. An example would be the industrial arts teacher's supervising a correspondence course on bricklaying for one student while teaching six to twelve students a woods course. This is an example of a multiple class concept. College-bound students would be provided four years of math, science and English and two years of a foreign language.

Criteria Number Two - "Can a staff of twelve or thirteen teachers readily adapt to this concept?"

The curriculum as designed requires no uniqueness of teacher preparation other than teachers' being willing to build strengths in their minor fields. The teaching modes, such as individualization required in multiple classes and programmed learning, would be better handled by the teachers if they received some inservice; however, these are not radical ideas beyond the teachers' awareness levels. Philosophic attitudes such as the teacher-facilitator concept and student-centered learning should be explored through

inservice. Role changes are necessary to fully implement the model. Only if teachers are willing to train themselves to play different roles in teaching will the model succeed.

The "teacher-teller" concept that is so prevalent today will be utilized but twelve or thirteen teachers cannot provide for the total scope of the model with this mode of instruction if other modes of instruction are not employed. Multiple classes--where two courses are taught simultaneously--will be required if certain low-incident courses are offered. This necessitates individualizing and using programmed learning materials.

The answer thus, is: "Yes, twelve or thirteen teachers can make the model operable, but inservice and retraining are necessary. A willingness to participate in the program is also necessary."

Criteria Number Three - "Is the cost reasonable for such a budget as a small school could create?"

The model is purposely designed to utilize no more personnel than typically are operating in a school of from less than one hundred students to a maximum of two hundred students. Personnel costs are a high percent of any school budget and are presently eighty percent of the total budget for Rankin High School. The model as designed would not increase this percent of cost for personnel.

Material and equipment costs would increase somewhat due to alternative approaches and added courses in the

programmed learning and multiple class concepts. This increase could not be considered significant when looking at the total budget. Added facilities are not necessary with this model.

Criteria Number Four - "Is there an authority in the field who considers the identified concept valid and worthwhile?"

The scheduling aspect of the model has been incorporated from several sources and is thus eclectic in nature. A rotating schedule is incorporated in this model; elements of this concept were taken from Fiebiger's report on a rotating schedule.[1] Phasing and modular-type time blocks used in the model were developed by Leggett and others in their model.[2]

The external high school diploma program of New York and its tendency to utilize the teacher-facilitator concept of Carl Rogers had a decisive influence on the model.[3] The Philadelphia Parkway Program[4] and the New York and Berkeley

[1]Fiebiger, Charlo Class Scheduling Plan.

[2]Leggett and others, "The Case for a Small High School."

[3]Bailey and others, Alternative Paths to the High School Diploma.

[4]Watson, Alternative Schools: Pioneering Districts Create Options for Students.

mini-schools[1] encouraged development of the model for a small student body.

Broady and Broady's writing contributed much to the model because they encouraged multiple classes, independent study, and programmed learning.[2] The Guba and Clark Schema aided in giving the model an identity; the model was established at the design element stage of the relation to change level.[3]

The lecture method will continue as a learning vehicle of the wide range of teaching-learning schematics available as will the discussion method. The teacher-facilitator concept as advocated by Carl Rogers[4] will be a rational element and a thrust of the model. Student-centered learning as advocated by Neill[5] and others will be stressed. Programmed learning has been established and is incorporated in many commercial instructional approaches that will be utilized more extensively in this model than in most school schemes.

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[1]Berkeley Board of Education, Experimental Schools Program.

[2]Broady and Broady, Administration of Small Twelve-Grade Schools.

[3]Kreitlow, Long-Term Study of Educational Effectiveness of Newly Formed Centralized Schools in Rural Areas, pp. 1-2.

[4]Rogers, On Becoming a Person, pp. 257-58.

[5]Neill, Summerhill: A Radical Approach to Child Rearing.

Criteria Number Five - "Would this concept facilitate the goals established by the community for the instructional program?"

The model is designed around goals established at a meeting in which the community developed stated student goals which they wished to see met. These are as follows:

1. Develop a desire for learning now and in the future
2. Develop skills in math, reading, writing, speaking and listening
3. Develop pride in work and feeling of self-worth
4. Develop character and self-respect
5. Learn to respect and get along with people with whom you work and live
6. Learn how to examine and use information
7. Learn how to respect and get along with people who think, dress and act differently

The model proceeds to final development in Chapter Five with the following format in regard to these student goals:

1. Inventory of need
2. Statement of need
3. Performance objective
4. Implementation

Through this analysis of each goal listed above and the implementation stage of development, it is shown how this model and its implementation would facilitate the goals established by the community.

Implications

Without inventing anything entirely new, one can rearrange and modify concepts that are in operation and discover a new model for an education program. Multiple classes are mentioned in literature but are not usually connected with regular classroom teaching and correspondence courses to constitute a multiple class. Several factors must be matched to reproduce the uniqueness of the proposed multiple-class concept of this model. Among these factors are such items as the Individually Guided Instruction Program, small class enrollments, and a correspondence school such as the American School that is willing to work out special arrangements with a local school.

The model as designed is unique to the school for which it was designed. The faculty also must be unique, yet the model could be reproduced in another setting.

A model of an inservice program of teacher improvement must be developed to bring other concerns fully to fruition. The mechanical changes alone, it is believed, may be expedited to cause some change of behavior on the part of teachers. The Individually Guided Instruction Program and the multiple-class concept, for example, are expected to encourage the teacher to view the student as an individual learner.

The cost of such a program as outlined in the model would not be significantly more than is presently expended. It is within the reach of the present and projected teaching staff as far as their energy output and qualifications are concerned. The facility in which this model would be operational is adequate.

Summary

A model has been designed reflective of a small school's needs based upon stated student goals. Inservice education will be the key to meeting the specific goals as will the full and planned utilization of personnel such as counselors. Course designs based upon criterion-referenced standards will be a further aspect in meeting student goals.

Implementation of group-therapy practices involving the social worker, guidance counselor and other personnel will be ongoing to enhance student self-image. Other life styles will be explored through redesigned course content and integration of real life experiences with course content.

A full range of teaching-learning schematics will be implemented and a number of organizational patterns for specific courses will be designed around specific teaching-learning modes. A faculty is described that can deliver the curriculum to meet the needs of the student body.

The uniqueness of the design is found in the rearrangement of known teaching-learning, schematics and organizational patterns. The model is designed around stated student goals. These are discussed in terms of inventory of need; statement of need; performance objectives; and finally and critically, an implementation statement. This model outline is the heart of the model and perhaps contributes an original approach to designing a curriculum and staffing pattern for a small high school setting.

APPENDIX I

THE SKELETAL PROGRAM PLAN

Introduction

Rankin is located in Central Illinois, thirty-eight miles north of the University of Illinois in Champaign-Urbana and sixty miles east of Illinois State University in Normal. Rankin has a dual district school system with approximately forty-seven square miles in the high school district and approximately thirty-four square miles in the elementary district. Recently the courts have awarded territory to the elementary district that now makes the two districts have nearly conterminous boundaries.

The Rankin populace has, since consolidation to its present size, considered their district as one district and thus hired one superintendent to serve both districts. Today there is a movement and trend toward board members sitting on both boards. Two members presently do so.

The Rankin elementary school has 160 students enrolled. The high school has 93 students.

The elementary school is the older of the two, being built in two stages in the early 1900's. It is well kept up, adequate in size for the present school population and has complied with the life safety code requirements.

The high school is approximately twenty years old, well built and adequate in size for the present school population. However, like many other facilities throughout the state, it does not easily lend itself to the many additional programs required since it has been built.

The high school has an assessed valuation of $7,000,000 and a budget of approximately $223,000. The elementary school's assessed valuation is $6,700,000 with a budget of $200,000.

Four years ago an educational referendum was passed three to one by the high school district for educational purposes. This attitude of support for a local school and community identity still exists, although high taxes are a concern.

Rankin is unique in many ways. It is a small town in a rural area without a total rural flavor. Its history indicates the railroad was a big part of its life. This aspect of culture still exists. The people are heterogeneous by culture, ethnic background, and status in life. There are extremes of position in life among the people in Rankin.

Although not a high percent of the Rankin populace are college educated, a proportionately high number have gone on to school and left the community. Others have become successful in business, farming and other self-made ventures. Although some students come from low income-

families, the percent who go on to college from Rankin's high school has ranged from approximately thirty-three percent to fifty-five percent. There has been only a five plus percent drop-out rate for the last three years. This is below the county rate.

The fact that there were fourteen board members serving on the two school boards over the past years has guaranteed community involvement. There has been a Citizen's Committee and a Vocational Advisement Committee involved in school matters. To further enhance this, the community was invited on January 23, 1973, to meet with the staff and Mr. Nap DeFault, from The Office of the Superintendent of Public Instruction, to help establish and to react to goals that would give direction to the Rankin schools in the future. Thirteen community members met with staff members on January 23rd. A letter was sent out following the meeting. A priority of goals was established by the community. A draft of these goals has been presented to the board for approval.

During August of 1973 and on October 9 and October 25, 1973, personnel from The Office of the Superintendent of Public Instruction met with the administration to correct form and suggest improvement in the "Program Plan." Teachers were given an opportunity to comment on their areas of concern during a meeting on

October 31, 1973. Personnel from The Office of the Superintendent of Public Instruction were present at this meeting to further clarify the "Program Plan" concept.

Student Goals and System Goals

A. Student Goals

1. Develop a desire for learning now and in the future

2. Develop skills in math, reading, writing, speaking and listening

3. Develop pride in work and feeling of self-worth

4. Develop good character and self-respect

5. Learn to respect and get along with people with whom you work and live

6. Learn how to examine and use information

7. Learn how to respect and get along with people who think, dress and act differently

B. System Goals

1. District Governance Policy and Practices

   The board of education shall delegate all executive functions to the district superintendent.

2. District Administrative Structure and Practice

   A superintendent will serve as superintendent of the elementary and high school districts.

3. District Policy Regarding Rights and Responsibilities of Individuals

   There will be written policy guidelines for administrators, teachers and students concerning rights and responsibilities of students.

4. The Instructional Program

   a. Students will be viewed as individual learners.

   b. Implementation of "Health Problems and Comprehensive Health Education Act" will be achieved.

5. Support Services

   Health Service - Vision and hearing screening will be provided for elementary students.

6. Staff Development and Inservice Training

   All teacher inservice days should be planned on a system-wide basis.

Needs and Objectives for System Goals

A. District Governance and Practices

Goal - The board of education shall delegate all executive functions to the district superintendent.

Inventory of need - New board members are not always aware of the differing roles of board and superintendent.

Statement of need - Each succeeding board needs to be oriented as to the role and responsibility of board members.

Performance objective - By May, 1974, the superintendent and returning board members will orient new board members toward differing roles of board and superintendent. This will then be done annually.

B. District Administrative Structure and Practice

Goal - A superintendent will serve as superintendent of the elementary and high school districts.

Inventory of need - Rankin has two districts with shared facilities and staff as well as other resources which they share.

Statement of need - One superintendent needs to serve both districts for articulation and cooperative purposes.

Performance objective - By February of each year both school boards will meet together to select and make decisions concerning the hiring of one superintendent to serve both districts. Yearly contracts will be established at this time.

C. District Policy Regarding Rights and Responsibilities of Individuals

Goal - There will be a written policy for administrators, teachers and students concerning rights and responsibilities of students.

Inventory of need - Student policy guidelines are fragmented and should be brought up to date.

Statement of need - Policy guidelines should be revised on a regular basis and a student handbook should be developed.

Performance objective - Policy guidelines concerning student rights will be reviewed by the board by May of the 1974-1975 school year.

D. Instructional Program

1. Individualization

Goal - Students will be viewed as individual learners.

Inventory of need - Viewing students as a group by grade level is encouraged by the type of material being used.

Statement of need - Teacher commitment toward material geared to individual instruction is needed.

Performance objective - By June of 1974, teacher involvement toward developing a concept of individualized instruction and suggestion toward purchase of materials to encourage individual instruction will be directed by the administrator.

2. Critical Health Problems and Comprehensive Health Education Act

Goal - Implementation of "Health Problems and Comprehensive Health Education Act" will be achieved.

Inventory of need - No program is available on K-8 level. One is being initiated on the tenth grade level.

Statement of need - We need to develop a curriculum and delivery system for K-8 and a curriculum for grade 10 to cover 9-12 level to meet state mandates.

Performance objectives - Administration and staff will develop a program that meets mandated act by the second semester of 1973-1974 on the high school level and by September of 1974 on the elementary level.

E. Support Services -

Health Services

Goal - Vision and hearing screening will be provided for elementary students.

Inventory of need - Attempts are being made to provide personnel and equipment to screen students each year.

Statement of need - There is a definite need for the child to be able to advance in school work and communicate in everyday life through senses of sight and sound. The screening should be done as early as possible for the student.

Performance objective - By the end of 1973-1974 all elementary students will be tested for vision and hearing defects by the school nurse.

F. Staff Development and Inservice Training

Goal - All teacher inservice will be planned on a system-wide basis.

Inventory of need - Very little planning for inservice has been done in past years for either district.

Statement of need - Inservice planning had been done for 1972-1973. More sequential and comprehensive planning needs to be done.

Performance objective - By June of 1974, the superintendent will have scheduled articulation meetings and inservice days for the 1974-1975 school year.

Program Design for Accomplishing Objectives

A. District Governance Policy and Practices

At the reorganization meeting held in April of each year, Illinois School Board Association material will be provided for new board members along with local policies and procedures.

B. District Administrative Structure and Practice

A joint meeting of the two boards will be called by the presidents of the respective boards in January or February of each year for the purpose of selecting a superintendent.

C. District Policy Regarding Rights and Responsibilities of Students

A citizen's committee will be activated for purpose of advising in the area of policy. The students, through their student council, will recommend policy and procedure to place in a student handbook. The board will review their policy on student rights and responsibilities, taking into consideration the input from the above two groups.

D. Instructional Program

1. Individualization

Inservice will deal with the topic of individualizing instruction and encouragement will be given to purchase material that lends itself to individualizing.

2. Critical Health

Meetings will be scheduled to orient teachers and to develop a program. A class schedule for second semester of 1973-1974 has been developed which provides for instructional time for sophomore students. The health teacher will develop a curriculum by the second semester. Inservice meetings have been attended and material will be selected for the course.

E. Support Services (Health Services)

A school nurse will be retained for a sufficient period of time to screen students and equipment will be provided to accomplish the tasks.

F. Staff Development and Inservice Training

In planning inservice days, both districts will work in consortium in planning and holding inservice.

Evaluation Program

Teachers will be invited to evaluate with the administration the degree of success in meeting the above goals and will attempt to design a device for measuring accomplishments. A report will be presented annually to the board on the degree of accomplishment.

Reporting

The Citizen's Advisory Committee will review the report to the board. Excerpts of the report will be published in the local newspaper.

Addendums to Program Plan

Addendum I - Stipulation

The Program Plan, as presented to each board, was approved with the stipulation that the Program Plan was not intended to supersede present board policy.

Addendum II - Desired Professional Competencies

During released periods monthly, the faculty will be involved in helping describe desired professional competencies. A committee of teachers will be assigned to establish a recommended list of competencies for the superintendent to establish as a goal for the districts. This recommendation should be on-going but with a tentatively completed recommendation by November, 1974. The superintendent will act on and establish a list by February, 1975.

Addendum III - Plan for Designing Developmental Learner Objectives

We are in the process of developing the concept of Developmental Learner Objectives. We have had two workshops presented by personnel from The Office of the Superintendent of Public Instruction for the stated purpose of bringing an awareness of Developmental Learner Objectives to the staff. We will continue to expose our staff to knowledge in this area and will begin to design Developmental Learner Objectives during the 1974-1975 school year.

APPENDIX II

STANDARDS FOR SECONDARY TEACHERS

AS TAKEN FROM A160

a. AGRICULTURE

24 semester hours in the field, including work in some of the following areas, plus preparation in the specific courses taught.

1. Agriculture science
2. Agriculture engineering
3. Agriculture fundamentals
4. Agriculture electricity and construction
5. Horticulture
6. Agriculture power and machinery
7. Agriculture supply service
8. Agriculture occupations

b. ART

24 semester hours in the field, including an appropriate distribution in:

1. Painting, drawing, printmaking
2. Sketching, lettering, jewelry, design, silkscreen
3. Pottery and sculpture
4. Constructional design
5. Art education
6. History and appreciation of art

c. AVIATION/AEROSPACE EDUCATION

1. General Aviation and/or Aerospace Education

Completion of an approved aerospace education workshop course. Five hours of flight orientation or familiarization within the last five years. This flight experience does not necessarily need to be as a member of a flight crew.

If the material that is being taught is strictly sociological in nature, the flight orientation requirement may be minimal. If the material that is being taught emphasizes astroscience, the teacher should have at least one college course in astronomy.

2. Aviation Science Course
(Based upon a preflight course leading to completion of the FAA private pilot's written examination.

A valid FAA private pilot's license or higher, or a valid FAA ground school instructor's certificate and ten hours of flight orientation or familiarization in the general aviation category aircraft within the last five years. This flight experience does not necessarily need to be as a member of a flight crew.

d. BUSINESS EDUCATION

24 semester hours, which must include a specialized methods course with the following minimum qualifications for the subject matter areas of course taught:

1. Typing

6 semester hours, or a statement of equivalency from the institution granting the degree, or the completion of the terminal course in the typewriting sequence.

2. Shorthand and Transcription

6 semester hours, or a statement of equivalency from the institution granting the degree, or the completion of the terminal course in the shorthand-transcription sequence.

3. Bookkeeping, accounting, recordkeeping

6 semester hours in accounting and a course in data processing, or a statement of equivalency from the institution granting the degree.

4. Business law

5 semester hours of business law.

5. Distributive subjects: i.e., marketing, retailing, distributive education

   8 semester hours covering at least two of the following: sales, retailing, advertising, principles of marketing.

6. Business arithmetic

   2 semester hours in business mathematics or 6 semester hours in accounting.

7. Office practice, secretarial practice, clerical practice or office machines

   2 semester hours in course work which includes the operation of the office machines taught in the secondary school course and qualifications for teaching whichever of the following is part of the course: typewriting, shorthand, bookkeeping (see paragraphs 1, 2, and 3 as aforementioned).

8. Basic business, general business, introduction to business, consumer education, or consumer economics

   3 semester hours of consumer education and at least 7 semester hours distributed in at least three of the following areas: business law, economics, introduction to business, marketing, management or a methods of teaching basic business.

9. Business English

   2 semester hours in Business English, business correspondence, business communications, or business writing.

10. Business economics

    8 semester hours in the area of economics, finance, financial management, or marketing, including at least one course in principles of economics.

11. Data processing

    5 semester hours in data processing or the equivalent.

e. ENGLISH

24 semester hours in the field including 6 semester hours in rhetoric and composition and not more than 8 semester hours in speech and journalism. To teach grammar, American literature, English literature, world literature, reading or dramatics, the English teacher must have one course in the subject.

f. JOURNALISM

8 semester hours in speech and 16 semester hours in English or 18 semester hours in speech and 6 semester hours in rhetoric and composition.

g. SPEECH

8 semester hours in speech and 16 semester hours in English or 18 semester hours in speech and 6 semester hours in rhetoric and composition.

h. FOREIGN LANGUAGE

20 semester hours in the language

i. HEALTH EDUCATION

20 semester hours including work in:

1. School health education
2. Basic health sciences
3. Applied health sciences

j. HOMEMAKING EDUCATION

24 semester hours in the field, including work in some of the following areas, plus preparation in the specific teaching areas.

1. General homemaking
2. Family living
3. Child development
4. Foods and nutrition
5. Textiles and clothing
6. Home furnishings
7. Home mechanics
8. Homemaking occupations

To teach a special course in any of the above areas, 8 semester hours are required in the area to be taught.

k. INDUSTRIAL ARTS

24 semester hours in the field, including work in each shop subject to be taught. To teach a unit shop, the teacher shall have 8 semester hours in the subject taught.

l. INSTRUCTIONAL MATERIALS (Media Services)

All staff members assigned media duties, including librarians, shall satisfy requirements in Chapter 9-3.

m. MATHEMATICS

20 semester hours in the field

n. MUSIC

24 semester hours in the field, including:

1. Applied music
2. Music theory
3. Conducting
4. History of music
5. Methods and materials for general school music

o. PHILOSOPHY

20 semester hours in the field

p. PHYSICAL EDUCATION

20 semester hours in the field, including:

1. Team sports
2. Individual activities
3. Rhythms
4. Body mechanics and basic exercises
5. Organization and administration of physical education classes
6. Health education

q. PSYCHOLOGY

20 semester hours in the field

r. SAFETY AND DRIVER EDUCATION

16 semester hours in the field, including preparation as follows:

1. 3 semester hours in general safety

2. 5 semester hours in driver education and advanced traffic safety

3. 8 semester hours chosen from two or more of the following areas:

   General safety, including traffic and industrial safety

   Advanced psychology and sociology

   First aid and health education

   Instructional materials

4. Teachers assigned to either simulation or multiple car programs must have preparation in the use of these methods which shall consist of a minimum of one semester hour or its equivalent in each area.

s. SCIENCE, biological

24 semester hours in the field, including the semester hours indicated in the subject to be taught

1. Biology

   8 semester hours in botany including 5 semester hours in laboratory work, 8 semester hours in zoology including 5 semester hours in laboratory work.

2. Botany

   8 semester hours in botany including 5 semester hours in laboratory work.

3. Physiology

   8 semester hours

4. Zoology

   8 semester hours in zoology including 5 semester hours in laboratory work.

t. SCIENCE, physical

24 semester hours in the field, including the semester hours indicated in the subject to be taught.

1.	Astronomy	5 semester hours
2.	Chemistry	10 semester hours
3.	Geology	8 semester hours
4.	Physics	10 semester hours
5.	Physiography	5 semester hours
6.	Aerospace	5 semester hours
7.	Earth science	8 semester hours

Note: It is recommended that a teacher of astronomy, chemistry, or physics has the minimum preparation required of a mathematics teacher.

u. SCIENCE, general

24 semester hours in the field including:

1.	Physical science	8 semester hours
2.	Biological science	8 semester hours

v. SOCIAL STUDIES

24 semester hours in the field, including the semester hours indicated in each subject to be taught:

1.	United States history	8 semester hours
2.	Civics-political science	8 semester hours
3.	Economics	8 semester hours
4.	Geography	8 semester hours
5.	Sociology	8 semester hours
6.	World history	8 semester hours in world history and 5 semester hours in United States history
7.	Anthropology	5 semester hours

Note: Every history teacher shall have 16 semester hours in history.

APPENDIX III

RANKIN HIGH SCHOOL

INDIVIDUALLY GUIDED INSTRUCTION

Students interested in taking courses based on the individually-paced principle—progress at a pace set by the pupil in learning at his own rate—may do so for credit as provided below:

1. This course is a fifth solid course and does not substitute for a required classroom course.

2. This course is a substitute for a required course failed previously.

Those who are interested in taking such a course must get the appropriate teacher's permission and then enroll with the librarian.

Credit

Credit of one-fourth to one full unit may be earned depending upon the program offered. Units of credit may be completed as follows:

1/4 unit - 29 hours of logged work
1/2 unit - 58 hours of logged work
3/4 unit - 87 hours of logged work
1 unit - 116 hours of logged work

Grades

A pass/fail grade will be given for units of credit unless a student petitions for a letter grade. Then the teacher will design tests to assess the appropriate grade to assign and a contract will be written up stating the specific goals to be accomplished before a grade and credit can be given for a course.

Non-Credit

Any course may be taken without credit by just making your request to the appropriate teacher.

Time and Place of Study

All logged study must be done under the supervision of the librarian. However, the text may be checked out as a regular library text if available and taken home for non-logged study.

Teacher Guidance

The librarian will be the supervising teacher and will be available during library hours to assist students. If further assistance is needed, she will coordinate scheduling other teachers from the appropriate field to work with students during study periods and eighth hour.

Course Offerings

As material becomes available and as the school board approves additional courses, the offerings will be increased. The following courses are available to students:

	Course	Max. Units	Teacher
1.	Composition	1 unit	English
2.	English Grammar I	1 unit	English
3.	English Grammar II	1 unit	English
4.	Basic Mathematics	1 unit	Mathematics
5.	Power/Speed Reading	1 unit	English or Title I
6.	Speed/Power Reading	1 unit	English or Title I
7.	Spelling	1/2 unit	English
8.	Bookkeeping	1/2 unit	Business
9.	Algebra I	1 unit	Mathematics
10.	Algebra II	1 unit	Mathematics

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