

**POLICY ISSUES TEAM
ON CURRICULUM AND COURSE OFFERINGS**

**FINAL REPORT
AUGUST 1984**

I. Executive Summary

Issue Title: Curriculum and Course Offerings

Team Leader: Curman L. Gaines, Deputy Commissioner, Department of Education

Subcabinet: Education/Cultural Affairs

Summary of Issue: Current State Board of Education rules at the middle school, junior high, and senior high levels are quite specific regarding subjects and minimum clock hours required, but course content and student achievement standards are determined locally. State Board rules at the elementary level prescribe only the subjects that must be included in the elementary curriculum except in the case of physical education, for which the required number of minutes per day are also set out.

Essentially local districts in Minnesota have implemented the State Board rules, and this has resulted in the development of a structure and a K-12 curriculum that are: "time-bound" to clock hours and seat-time; "lock-stepped" to the student's age; "place-bound" in that it is assumed that learning for the most part happens in school; and finally, largely "media-bound" in that delivery of courses relies heavily on teachers and textbooks.

Today's society presents a new set of characteristics and a new set of educational needs. The learner must be prepared to deal with life long learning, multiple careers, rapid availability of information, global citizenship; the learner needs higher order skills, many literacies (e.g., the basics, computer, world languages), skills to deal with rapid change, multicultural education, flexibility, creativity, and an understanding of the arts and the humanities.

The central issue that the team has identified regarding K-12 curriculum is that society is changing from an industrial model to an information model. The K-12 education system is designed for the old, industrial society; therefore, the K-12 public education system needs to be restructured so that the system can "produce" the different learning experiences needed to live, work, and grow in the information society of the 1980's, 1990's and beyond.

Major Findings/Conclusions:

Curriculum improvement efforts have to date been done largely in a fragmented fashion. The K-12 curriculum needs to be viewed as one integrated system, and changes should be approached from a wholistic perspective. The emphasis for the total K-12 curriculum needs to shift to higher order thinking skills.

Teaching and learning are widely perceived as experiences which take place only in the classroom. The system needs to consider teachers as facilitators of the learning process, as managers of developing and delivering curriculum, as instructional leaders in the schools; and needs to consider learning as a continuous informal and formal process, as an activity that can take place in settings other than the school, and as a process that is learner centered.

Under the present structure, **district size is a factor** in delivering course offerings. There is concern regarding accessibility of offerings to all students in cases where the critical numbers to offer courses do not exist. On the other hand, within the current structure, instructional **group size is often too large** to facilitate the teaching of higher order skills. All K-12 students in Minnesota should have equal opportunity to select from the same K-12 core curriculum offerings regardless of district size. Class size should vary and be appropriate to the learning experience for which the learners are convened.

The **mission of the K-12 education system needs to be clarified**; this will, in turn, shape decisions about K-12 curriculum. The involvement of students, parents, teachers, and the community in K-12 education needs to be increased. In addition, there is a need for stronger communication between the K-12 and post-secondary education systems. This broad involvement is critical in the process of clarifying the mission.

Recommended Policy Direction: Education for the good life in Minnesota in 1984 and beyond should be a blend and balance of learning experiences that result in expanded personal understanding and creative expression (high culture); the ability to function in creative, contemporary careers (economic viability); and the ability to live, work, and self-actualize in a "high culture/high-tech" society which requires understanding and using the products of the electronic revolution to enhance the storage, retrieval and delivery of information (high-tech) for use in all facets of an individual's life.

Therefore, the team's general recommendation is as follows: immediate action should be taken to design, develop, and implement curricula models that provide increased learning opportunities and application experiences in the basics, the arts, the sciences and the humanities; to address higher level skills in all subject areas for all students; and to examine all of the components of the K-12 system that have bearing on restructuring for the purpose of achieving one, integrated, developmental K-12 system.

It is anticipated that the restructuring of our K-12 system will result in added cost in terms of increased real expenditures (not increased cost due to inflation). It is not possible to project these added costs. They must be identified as the component parts of the restructuring process evolve and are specifically defined in terms of action and resources needed.

Recommendations:

1. In order to promote a wholistic approach to the development of K-12 curriculum, all local school districts should submit to Minnesota Department of Education a written plan for a balanced K-12 core curriculum that demonstrates developmental sequence, comprehensive scope, and integration among subject areas.
2. A special study of the "junior high" curriculum and delivery system should be carried out and recommendations developed for curricular offerings and organizational structures that will meet the needs of students 11-14 years of age and that will demonstrate integration into the total K-12 scope and developmental sequence.
3. K-12 educators, post-secondary educators, students, parents and community and business representatives should convene to define the purpose of and priority for foreign language in the elementary curriculum and throughout the entire K-12 curriculum.
4. K-12 educators, post-secondary educators, representatives of teacher training programs, business and community representatives, and parent and student representatives should convene to develop recommendations for changes in teacher training programs that are responsive to the K-12 core curriculum models.
5. The Minnesota Department of Education should encourage and assist districts in developing flexibility in class size so that class size is variable and appropriate to the learning experience/learner outcomes.

II. Background

A. Issue Background

Graduation from high school for all students is a relatively new educational and social expectation in our country. The trend toward high school completion for all began to strengthen after 1945; and by 1950, nearly 65 percent of students in the United States were graduating from high school.

Although Minnesota leads the nation with a graduation rate of 89 percent, a high school education is not a requirement for any Minnesota student. Compulsory education ends at age 16, which is typically about the end of 10th grade. This was always considered to be the point at which the concept of "common school" ended. It was believed that if students completed the requirements for grades one through nine that they would have sufficient knowledge and skills to be productive members of the society.

Historically, high school curriculum and standards have been left to local school boards. The State Board of Education established only a minimum set of program and graduation requirements. Local school boards have been given great latitude in the establishment of additional courses, graduation requirements and academic standards.

Current State Board of Education rules at the middle school, junior high, and senior high levels are quite specific regarding subjects and minimum clock hours required, but course content and student achievement standards are determined locally. State Board rules at the elementary level prescribe only the subjects that must be included in the elementary curriculum except in the case of physical education, for which the required number of minutes per day are also set out.

Essentially local districts in Minnesota have implemented the State Board rules, and this has resulted in the development of a structure and a K-12 curriculum that are: "time-bound" to clock hours and seat-time; "lock-stepped" to the student's age; "place-bound" in that it is assumed that learning for the most part happens in school; and finally, largely "media-bound" in that delivery of courses relies heavily on teachers and textbooks.

The delivery of this curriculum for regular K-12 education is funded by the foundation aid formula. For grades 1-6 the formula amount multiplied by the number of students in average daily membership in the schools determines the amount of foundation aid funds available. Kindergarten students earn .5 of the formula allowance, while secondary students (grade 7-12) earn 1.4 times the foundation aid amount to support the delivery of their curriculum and course offerings. This funding system tends to reinforce the "place-bound" and "time-bound" structure described above.

Minnesota's average cost per pupil was \$2,966 in 1982-83, placing Minnesota 16th among all states in expenditure per pupil for public education. In 1981-82, Minnesota expended \$3,112 per pupil and ranked 7th nationally. ("Rankings of the States, 1984", National Education Association.)

This "production line" approach to educating K-12 students viewed learning as a product, rewarded conformity and was based on lock-step progress of age grouped students measured by clock hours. This system gave students the skills, knowledge, and characteristics necessary for successful living in the industrial age.

Today's society presents a new set of characteristics and a new set of educational needs. The learner must be prepared to deal with life long learning, multiple careers, rapid availability of information, and global citizenship; the learner needs higher order skills, many literacies (e.g., the basics, computer, world languages), skills to deal with rapid change, multicultural education, flexibility, creativity, and an understanding of the arts and the humanities. The K-12 system and the curriculum it delivers must change to meet the new educational needs for the 1980's and beyond.

In addition to the identification of this policy issue in the policy development process, a report on curriculum changes and graduation requirements was submitted by the Commissioner of Education in October 1983 to the Legislature as required by Chapter 314, Article 8, Section 22, Session Laws 1983. Also during the spring of 1984, rule changes were proposed for the State Board of Education rules governing both three-year and four-year Secondary School Curriculum Offerings and for the State Board rules governing Elementary School Curriculum Requirements. The proposed changes for secondary course offerings require that more subjects be made available to all secondary students in Minnesota including foreign language, math, science, music, visual arts, and industrial arts. Proposed changes in elementary curriculum requirements would prescribe balance and coordinated scope and sequence among required subjects.

B. Issue Charge

The charge upon which the policy issues team on curriculum and course offerings focused its work effort was:

The development of a summary, analysis and synthesis of the major issues and recommendations regarding K-12 curriculum and course offerings that are addressed in recent state reports on education and that emerge from current laws, rules, policies, and state priorities; and

The development of a broad policy position on the priority issues identified by the team, including recommendations for improving and restructuring curriculum and course offerings for K-12 public education.

C. Analysis Method

The team on curriculum and course offerings was composed of the following members:

Leader: Curman Gaines, Deputy Commissioner
Department of Education

Members: Nancy Bunnett, Higher Education Coordinating Board
Martha Frommelt, State Arts Board
Wayne Erickson, Department of Education
Floyd Keller, Department of Education
Tom Ryerson, Department of Education
Gilbert Valdez, Department of Education
George Bates, State University System
Staff: Mary Lynne McAlonie, Department of Education

Nine recent reports on education in Minnesota were selected to be reviewed and analyzed by individual members of the team. A common analysis format was developed and used for all reports in order to facilitate the analysis of common issues and recommendations among reports. In addition, the State Board of Education proposed rules for Elementary Education Curriculum and for Secondary Education course offerings, current legislation on technology and educational improvement (1983 and 1984 Educational Finance Bills), and the Minnesota Department of Education priority areas for F.Y. 1985-87 were reviewed for implications for K-12 curriculum and course offerings.

Based on the analysis of these reports and documents, the team met to identify, discuss and synthesize major issues and to develop priority issues for consideration in the team's recommendation.

III. Findings/Conclusions

A. Results of Analysis

Based on the analysis of the selected reports and documents and the team's expertise and experience, the following findings have been identified. These findings are presented here as they relate to major aspects of the K-12 education system.

Curriculum Restructuring:

Curriculum improvement efforts have to date been done largely in a fragmented fashion. For example, a content area such as science or art has been isolated for review and improvement. Frequently, this leads to increasing the amount of time dedicated to that particular content area in the curriculum. This approach causes concern regarding the amount of time needed to adequately deliver all of the components of new and improved curriculum as "add-ons" continue to be attached to the existing structure.

The K-12 curriculum needs to be viewed as one integrated system, and changes should be approached from a wholistic perspective. The emphasis for the total K-12 curriculum needs to shift to higher order thinking skills.

Attention has been recently given to elementary and secondary curriculum and changes proposed. The current curriculum for the junior high level needs serious review in the context of a total, integrated, developmental K-12 curriculum and the needs of students of junior high age. Many different models exist in Minnesota for serving students between 11-14 years of age. Many variables are raised for a systematic review including teacher training and licensure, rules, mastery of basic skills, and student needs.

Teaching and Learning:

Teaching and learning are widely perceived as experiences which take place only in the classroom. Teacher training is consistent with this perception, and the role of the teacher is conceived narrowly. The system needs to consider teachers as facilitators of the learning process, as managers of developing and delivering curriculum, as instructional leaders in the schools; and needs to consider learning as a continuous informal and formal process, as an activity that can take place in settings other than the school, and as a process that is learner centered.

A learner outcome based curriculum needs to be considered as a model that is learner centered; that offers a structure within which a variety of learning styles, delivery systems, and methods of instruction will exist; and that will offer accountability through measurement of the attainment of defined learner outcomes.

The Structure of the System:

Under the present structure, **district size is a factor** in delivering course offerings. There is concern regarding accessibility of offerings to all students in cases where the critical numbers to offer courses do not exist. On the other hand, within the current structure, instructional **group size is often too large** to facilitate the teaching of higher order skills.

Mission, Involvement, Credibility:

The **mission of the K-12 education system needs to be clarified**; this will, in turn, shape decisions about K-12 curriculum. This clarification needs to take into consideration society's transition into the information age and what the graduates of our K-12 system need in order to live and work in that society.

The involvement of students, parents, teachers, and the community in K-12 education needs to be increased. In addition, there is a need for stronger communication between the K-12 and post-secondary education systems. This broad involvement is critical in the process of clarifying the mission.

With a clear mission, accountability for achieving that mission can be increased; and the credibility of public schools will improve.

B. References/Reports

The following recent reports on education in Minnesota were selected, reviewed, and analyzed by the team:

An Interim Report from the Minnesota Alliance for Science,
September 1983

The Legislative Commission on Public Education Report,
1984

An Assessment of Minnesota K-12 Education, Minnesota
Business Partnership, 1984

The Minnesota Dialogue on Education, April 1984

Task Forces on Restructuring Education in Minnesota
Report, May 1984

Review and Comment on Proposals for Admissions Requirements for Incoming Freshman - Minnesota Higher Education Coordinating Board, February 16, 1984

Remedial and Skills Development Instruction in Minnesota Post-Secondary Education with Coordinating Board Recommendations-Minnesota Higher Education Coordinating Board, May 1984

Arts in Minnesota Schools; A 1982 Status Report

Minnesota Statewide Assessment in Art 1981-82

In addition, the following documents were reviewed and discussed for implications for K-12 curriculum and course offerings.

Proposed State Board of Education Rules for Required Curriculum Offerings for Elementary Schools

Proposed State Board of Education Rules Governing Required Three-Year and Four-Year Secondary School Curriculum Offerings

1983 and 1984 Minnesota Legislation on Technology and Education Improvement

The Minnesota Department of Education Priority Areas for F.Y. 1985-87

IV. Alternative Options

The central issue that the team has identified regarding K-12 curriculum is that society is changing from an industrial model to an information model; the K-12 education system is designed for the old, industrial society. Therefore, the K-12 public education system needs to be restructured so that the system can "produce" the different learning experiences needed to live, work, and grow in the information society of the 1980's, 1990's and beyond.

The team rejects the idea that the changes currently needed can be achieved by looking at isolated components in the K-12 system. A wholistic approach must be taken.

The most appropriate course of action is to redesign and restructure the system. Within that approach the following must be considered: the K-12 curriculum content, delivery models, the teacher role, the learning environment, parent and citizen involvement, class size, teacher training, learner responsibility, learner outcomes, and mission.

To implement this course of action, policy makers, education leaders, students, parents, teachers, the private sector, and citizens at large need to be involved in the exchange of ideas and information, in recognizing the need for change, in the decision to support restructuring our K-12 system, and in the designing of the new system.

It is anticipated that the restructuring of our K-12 system will result in added cost in terms of increased real expenditures (not increased cost due to inflation).

It is not possible to project these added costs. They must be identified as the component parts of the restructuring process evolve and are specifically defined in terms of action and resources needed.

V. Recommendations

A. Overview

Education for the good life in Minnesota in 1984 and beyond should be a blend and balance of learning experiences that result in expanded personal understanding and creative expression (high culture); the ability to function in creative, contemporary careers (economic viability); and the ability to live, work, and self-actualize in a "high culture/high-tech" society which requires understanding and using the products of the electronic revolution to enhance the storage, retrieval and delivery of information (high-tech) for use in all facets of an individual's life.

Therefore, the team's general recommendation is as follows: immediate action should be taken to design, develop, and implement curricula models that provide increased learning opportunities and application experiences in the basics, the arts, the sciences and the humanities; to address higher level skills in all subject areas for all students; and to examine all of the components of the K-12 system that have bearing on restructuring for the purpose of achieving one, integrated, developmental K-12 system. These represent the broad policy direction recommended by the team.

Curriculum Restructuring:

K-12 curriculum and course offerings should be developed to achieve the goal of providing a "high culture/high-tech" education; the curriculum should be comprehensive in scope, balanced in content, and integrated in sequence. The focus for planning, the guide for restructuring and the measure for assessment should be learner outcomes. Learner outcomes should be developed at the basic skills level, and higher order thinking skills should be emphasized in all content areas across the whole K-12 system.

Teaching and Learning:

The system needs: to provide incentives to students to strive for excellence; to demonstrate through the development of learner outcomes the applicability of learning to life and life-long learning; to implement a commitment to develop the role of and the perception of K-12 teachers as instructional leaders; and to restructure the pre-service and in-service training and the work setting of teachers to support this broader role of facilitators/managers of the learning process.

The Structure of the System:

All K-12 students in Minnesota should have equal opportunity to select from the same K-12 core curriculum offerings regardless of district size. Class size should vary and be appropriate to the learning experience for which the learners are convened.

Mission, Involvement and Credibility:

There should be increased accountability for the K-12 curriculum delivery system on the part of teachers, parents, students, school administrators and the community as a whole. Parents and citizens of the community need information and opportunities for involvement; students need to become more responsible for their own learning.

B. Recommendations

1. In order to promote a wholistic approach to the development of K-12 curriculum, all local school districts should submit to Minnesota Department of Education a written plan for a balanced K-12 core curriculum that demonstrates developmental sequence, comprehensive scope, and integration among subject areas. Each curriculum area should be developed around measurable learner outcomes. As learner outcomes are developed, higher level thinking skills should be incorporated in all course offerings for all students, K-12. Training, consultation, and alternative models to assist districts in the planning and development of such K-12 curriculum should be provided by the Department of Education. This should be done in a consistent and coordinated manner with the Department's priority area of outcome based education and with the implementation of the Planning, Evaluation, and Reporting (PER) legislation.

2. A special study of the "junior high" curriculum and delivery system should be carried out and recommendations developed for curricular offerings and organizational structures that will meet the needs of students 11-14 years of age and that will demonstrate integration into the total K-12 scope and developmental sequence.

As changes in organizational structures for the "junior high" level are considered, the foundation aid formula weighting factor, which currently provides more money for students in grades 7-12 than for students in grades 1-6, should be taken into consideration so that fiscal neutrality as regards program design is ensured. This would provide the option to implement various program models without fiscal incentive or disincentive.

3. K-12 educators, post-secondary educators, students, parents and community and business representatives should convene to define the purpose of and priority for foreign language in the elementary curriculum and throughout the entire K-12 curriculum.
4. K-12 educators, post-secondary educators, representatives of teacher training programs, business and community representatives, and parent and student representatives should convene to develop recommendations for changes in teacher training programs that are responsive to the K-12 core curriculum models that result from recommendations #1 above.

The team recommends that particular attention be given to the need to review and expand the roles and responsibilities of K-12 teachers to include such role components as facilitators of the learning process, managers of the development and delivery of curriculum and instructional leaders in the schools.

5. The Minnesota Department of Education should encourage and assist districts in developing flexibility in class size so that class size is variable and appropriate to the learning experience/learner outcome. It is recommended that lowered class sizes be considered in the provision of learning experiences designated to develop higher level skills.

