APPROVED
55-1993

Rockville, Maryland
December 8, 1993

The Board of Education of Montgomery County met in special session at the Carver Educational Services Center, Rockville, Maryland, on Wednesday, December 8, 1993, at 7:30 p.m.

ROLL CALL Present: Dr. Alan Cheung, President in the Chair
Mr. Stephen Abrams*
Ms. Carrie Baker
Mrs. Frances Brenneman
Mr. Blair G. Ewing
Mrs. Carol Fanconi
Mrs. Beatrice Gordon
Ms. Ana Sol Gutierrez*

Absent: None

Others Present: Dr. Paul L. Vance, Superintendent
Mrs. Katheryn W. Gemberling, Deputy
Dr. H. Philip Rohr, Deputy
Mr. Thomas S. Fess, Parliamentarian

RESOLUTION NO. 857-93 Re: BOARD AGENDA - DECEMBER 8, 1993

On recommendation of the superintendent and on motion of Mrs. Fanconi seconded by Mrs. Brenneman, the following resolution was adopted unanimously by members present:

Resolved, That the Board of Education approve its agenda for December 8, 1993.

*Mr. Abrams and Ms. Gutierrez joined the meeting at this point.

Re: POLICY ON EDUCATIONAL TECHNOLOGY

Mrs. Fanconi moved and Mr. Ewing seconded the following:

WHEREAS, On December 13, 1983, the Board of Education adopted Policy IGS: Instructional Use of Computers; and

WHEREAS, On October 8, 1991, the Board of Education discussed the report "Educational Technology: Planning for the 21st Century" and indicated support for moving in the direction of a new policy on educational technology; and

WHEREAS, On June 17, 1993, the Board of Education discussed a policy analysis of an educational technology policy and requested that the superintendent provide a draft policy incorporating the issues raised during the discussion; and

WHEREAS, On October 12, 1993, the Board of Education tentatively adopted the draft policy "Educational Technology" that was sent

to the public for comment; now therefore be it

Resolved, That the Board of Education rescind Policy IGS: Instructional Use of Computers; and be it further

Resolved, That the Board of Education adopt the following Policy IGS: Educational Technology.

Related Entries:

Office: Deputy Superintendent for Instruction
Deputy Superintendent for Planning, Technology and Supportive Services

EDUCATIONAL TECHNOLOGY

A. PURPOSE

1. To affirm the Board of Education's strong commitment to prepare today's students for life in the 21st century and ensuring a technologically literate citizenry and an internationally competitive work force

2. To articulate a vision and goals ensuring that educational technology is appropriately and equitably integrated into instruction and management to increase student learning, enhance the teaching process, and improve the operations of the school system

B. ISSUES

1. Technology in Society

Computers, television, consumer electronics, electronic publishing, and telecommunication technologies are rapidly merging to create a new medium, the information superhighway. As these technologies merge into a single interactive information industry, changes in access to and use of information services and tools will profoundly influence educational goals, content, and structure.

2. Technology in Education

Technology is essential to the success of students and the effective management of education for three reasons:

a) Development of Technology Skills

There is a societal expectation that students should learn to use technology. Two of the

essential workplace competencies identified by the U.S. Department of Labor are the ability to use information and the ability to use technology.

b) Integration of Technology in Instruction.

Technology must become an integral part of the curriculum, the physical environment, and the delivery of instruction.

c) Effective Management of Education

Efficient administration of the school system requires up-to-date technological tools for both the direct and indirect support of instruction. Effective management of education requires that student performance and background data be available to administrators and teachers on demand, that clerical work be performed with minimal time and effort, and that tools such as electronic gradebooks, multi-year and multimedia student portfolios, optically-stored instructional materials and lesson plans, and classroom-based access to administrative systems be widely available.

3. Equity

Without equitable access to information, disparities in educational opportunities will grow larger. Students in all schools should have equitable access to information technologies and be provided the educational opportunities to learn to use these techniques. This will require that all schools receive support to be equipped with technological tools similar to those that have been available previously only to new and modernized schools.

4. Staff Skills and Training

The effective integration of technology assumes that teachers are facilitators of learning, designers of individualized programs, and learners themselves. Efficient operation and management requires staff skilled in the use of technological tools. Ongoing training and access to information technologies are essential.

5. Special Needs Students

Students with special physical, language, or other educational needs benefit greatly from use of technology. For some students, adaptive devices such as alternative computer input devices make the difference between writing and not writing. For many students with disabilities, technology can remove significant barriers and facilitate their inclusion into regular programs in the least restrictive environment.

C. POSITION

1. Vision

The Board of Education is responsible for preparing students to access, analyze, apply, and communicate information effectively so that they will become successful, contributing members of a changing, information-based global society. A key to preparing students for the 21st century is equitable access to information. All MCPS classrooms, media centers, and offices should be electronically connected and equipped, providing all members of the learning community -- students, staff, and parents -- with equitable and easy access to information technologies for teaching, learning, management, and support of schools.

2. Educational Technology Tripod

Implementing the information superhighway concept in MCPS requires that information (text, data, audio, and video) be transmitted easily to and from every classroom, media center, and office. The base for ensuring equitable access to information technologies is a tripod that consists of staff support, hardware and software, and connectivity.

a) Staff Support

Training and support strategies will be provided to ensure that staff has the appropriate competencies and continuous support needed to use educational technology to deliver and support instruction.

b) Hardware and Software

To accelerate the pace at which schools/offices are provided full access to information technologies and to address the present disparities, a baseline configuration that allows access to sufficient equipment and software will be provided to every school/office.

c) Connectivity

The potential of educational technology will remain unrealized without a communications network, or highway, to link users and information. A multi-tiered network and communications strategy will be designed and developed to provide for electronic communication within and among schools, homes, offices, and databases located anywhere in the world.

3. Administrative and Instructional Merger

MCPS must integrate administrative and instructional uses of technology. Staff support, hardware and software, and connectivity strategies will be applicable to all MCPS uses of technology.

4. Emerging Technologies

Advances in technology require frequent reassessment of implementation strategies and the development of strategies that provide for assessment of the cost-effective replacement and/or adaptation of both obsolete and soon-to-be obsolete hardware and software.

D. DESIRED OUTCOMES

1. Educational technology will be appropriately and equitably integrated into instruction and management and used by all students and staff as an essential element of school improvement and student success.

2. All classrooms, media centers, and offices will be electronically connected and equipped, providing all members of the learning community, including students, staff, and parents, with equitable and easy access to information technologies for teaching, learning, management, and day-to-day operations.

3. Skill expectations will be established and required for both students and staff in using and integrating

information technologies.

4. MCPS units responsible for technology planning will work collaboratively with each other, as well as with county, state, and government groups, to develop efficient, cost-effective applications.

5. The broadest possible access to the system is to be promoted, acknowledging and respecting the security of records that are accessible through such a system; and safeguards are to be in place to ensure that security is maintained.

E. IMPLEMENTATION STRATEGIES

1. The superintendent will develop and maintain a comprehensive MCPS education technology implementation plan to plan, guide, and assess the effective implementation of all aspects of this policy and present this plan to the Board for its review and consideration.

2. The superintendent will direct staff to develop implementation strategies which include but are not limited to:

a) Consult and collaborate on a continuing basis with education, business, community, and government groups both locally and nationally.

b) Identify student competencies in using educational technologies to access, analyze, apply, and communicate information.

c) Identify staff competencies required for integrating and applying information technologies in instruction and support (e.g. E-Mail).

d) Establish and continually update an ongoing staff development program to implement this policy.

e) Identify educational management tools to be acquired and implemented.

f) Establish baseline standards to ensure that all schools and offices have adequate and appropriate hardware, software, multimedia materials, and communications capabilities.

F. REVIEW AND REPORTING

1. An annual report will be made to the Board of Education on the progress of implementing this educational technology policy during its first three years.

2. This policy will be reviewed every three years in accordance with the Board of Education's policy review process.

RESOLUTION NO. 858-93 Re: AMENDMENTS TO THE PROPOSED POLICY ON EDUCATIONAL TECHNOLOGY

On recommendation of the superintendent and on motion of Mrs. Brenneman seconded by Mr. Ewing, the following resolution was adopted unanimously:

Resolved, That the following amendments be made to the proposed policy on Educational Technology:

Lines 152-158:

C. 4. Advanced and Emerging Technologies

Changes in technology require frequent reassessment of implementation strategies and the development of strategies based on systemwide standards for communications, hardware, and software that provide for assessment of the cost-effective replacement and/or adaptation of both obsolete and soon-to-be obsolete hardware and software.

Lines 178-181:

D. 4. MCPS units responsible for technology planning will work collaboratively with each other, as well as with county, state, and government groups, to investigate current, advanced, and emerging commercial technologies and to identify or develop if necessary efficient, cost-effective applications.

Line 109:

An instructional profile of each student will be available from databases for use in diagnosing student needs, analyzing student performance, and reporting student achievement to enhance the delivery of instructional services and to ensure student success.

Line 165:

Improving student performance and achievement, increasing staff productivity, and assuring efficiency of the day-to-day operations of the school system are the essential reasons for the use of technology in MCPS.

Line 220:

...as rapidly as available resources permit.

RESOLUTION NO. 859-93 Re: AN AMENDMENT TO THE PROPOSED POLICY ON EDUCATIONAL TECHNOLOGY

On recommendation of the superintendent and on motion of Mrs. Fanconi seconded by Ms. Gutierrez, the following resolution was adopted unanimously:

Resolved, That the proposed policy on Educational Technology be amended as follows:

Lines 85-93:

B. 5. Students with Special Needs

Students with special needs, including those with identified disabilities, benefit greatly from use of technology. For many students with disabilities, technology removes barriers to learning and facilitates their active participation in the least restrictive environment.

RESOLUTION NO. 860-93 Re: AN AMENDMENT TO THE PROPOSED POLICY ON EDUCATIONAL TECHNOLOGY

On motion of Mr. Abrams seconded by Mrs. Gordon, the following resolution was adopted unanimously:

Resolved, That the proposed policy on Educational Technology be amended as follows:

Line 187:

6. MCPS will utilize to the maximum extent possible hardware consistent with MCPS standards made available by other government agencies and/or the private sector.

RESOLUTION NO. 861-93 Re: AN AMENDMENT TO THE PROPOSED POLICY ON EDUCATIONAL TECHNOLOGY

On motion of Mr. Ewing seconded by Mrs. Fanconi, the following resolution was adopted unanimously:

Resolved, That the proposed policy on Educational Technology be amended as follows:

Line 190:

1. The superintendent will develop and maintain a comprehensive and continuous long-range MCPS educational technology implementation planning process. This process should be designed to plan, guide, and assess the effective implementation of all aspects of this policy. The superintendent shall present this plan to the Board for its review and approval and shall from time to time develop and present to the Board for its approval revised plans.

RESOLUTION NO. 862-93 Re: AN AMENDMENT TO THE PROPOSED POLICY ON EDUCATIONAL TECHNOLOGY

On motion of Mr. Ewing seconded by Ms. Gutierrez, the following resolution was adopted unanimously:

Resolved, That the proposed policy on Educational Technology be amended as follows:

Line 221:

g) Identify, document, and evaluate core processes that need improvement or re-engineering to maximize the productivity and educational benefits from technology investments.

RESOLUTION NO. 863-93 Re: POLICY ON EDUCATIONAL TECHNOLOGY

On recommendation of the superintendent and on motion of Mrs. Fanconi seconded by Mr. Ewing, the following resolution was adopted unanimously:

WHEREAS, On December 13, 1983, the Board of Education adopted Policy IGS: Instructional Use of Computers; and

WHEREAS, On October 8, 1991, the Board of Education discussed the report "Educational Technology: Planning for the 21st Century" and indicated support for moving in the direction of a new policy on educational technology; and

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WHEREAS, On October 12, 1993, the Board of Education tentatively adopted the draft policy "Educational Technology" that was sent to the public for comment; now therefore be it

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a) Development of Technology Skills

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b) Integration of Technology in Instruction. Technology must become an integral part of the curriculum, the physical environment, and the delivery of instruction.

c) Effective Management of Education

Efficient administration of the school system requires up-to-date technological tools for both the direct and indirect support of instruction. Effective management of education requires that student performance and background data be available to administrators and teachers on demand, that clerical work be performed with minimal time and effort, and that tools such as electronic gradebooks, multi-year and multimedia student portfolios, optically-stored instructional materials and lesson plans, and classroom-based access to administrative systems be widely available.

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Changes in technology require frequent reassessment of implementation strategies and the development of strategies based on systemwide standards for communications, hardware, and software that provide for assessment of the cost-effective replacement and/or adaptation of both obsolete and soon-to-be obsolete hardware and software.

D. DESIRED OUTCOMES

1. Educational technology will be appropriately and equitably integrated into instruction and management and used by all students and staff as an essential element of school improvement and student success.

Improving student performance and achievement, increasing staff productivity, and assuring efficiency of the day-to-day operations of the school system are the essential reasons for the use of technology in

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2. All classrooms, media centers, and offices will be electronically connected and equipped, providing all members of the learning community, including students, staff, and parents, with equitable and easy access to information technologies for teaching, learning, management, and day-to-day operations.

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4. MCPS units responsible for technology planning will work collaboratively with each other, as well as with county, state, and government groups, to investigate current, advanced, and emerging commercial technologies and to identify or develop if necessary efficient, cost-effective applications.

5. The broadest possible access to the system is to be promoted, acknowledging and respecting the security of records that are accessible through such a system; and safeguards are to be in place to ensure that security is maintained.

6. MCPS will utilize to the maximum extent possible hardware consistent with MCPS standards made available by other government agencies and/or the private sector.

E. IMPLEMENTATION STRATEGIES

1. The superintendent will develop and maintain a comprehensive and continuous long-range MCPS educational technology implementation planning process. This process should be designed to plan, guide, and assess the effective implementation of all aspects of this policy. The superintendent shall present this plan to the Board for its review and approval and shall from time to time develop and present to the Board for its approval revised plans.

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b) Identify student competencies in using educational technologies to access, analyze, apply, and communicate information.

c) Identify staff competencies required for integrating and applying information technologies in instruction and support (e.g. E-Mail).

d) Establish and continually update an ongoing staff development program to implement this policy.

e) Identify educational management tools to be acquired and implemented.

f) Establish baseline standards to ensure that all schools and offices have adequate and appropriate hardware, software, multimedia materials, and communications capabilities as rapidly as available resources permit.

g) Identify, document, and evaluate core processes that need improvement or re-engineering to maximize the productivity and educational benefits from technology investments.

F. REVIEW AND REPORTING

1. An annual report will be made to the Board of Education on the progress of implementing this educational technology policy during its first three years.

2. This policy will be reviewed every three years in accordance with the Board of Education's policy review process.

RESOLUTION NO. 864-93 Re: ADJOURNMENT

On recommendation of the superintendent and on motion of Ms. Baker seconded by Mrs. Gordon, the following resolution was adopted unanimously:

Resolved, That the Board of Education adjourn its meeting at 8:20 p.m.

_____
PRESIDENT

_____
SECRETARY

PLV:mlw