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ABSTRACT

The Des Moines (Iowa) Independent Community School District Department of Information Management provides leadership and management services for the district in the areas of strategic planning for district improvement, technology, telecommunications, accountability, program evaluation, research, testing/assessment, and student information. This is a report of the department evaluation. The context evaluation contains an overview of departmental functions; recent developments including implementation of a transformation plan, changes to the district's assessment program, technology improvements, and a new student records database; and policies, standards, and regulations that govern departmental operations. The input evaluation component contains information on budget and expenditures; human resources; technology cost summary; costs of inservice/staff development; materials and equipment by the department; community resources; and space allocations. The process evaluation section is comprised of information about work flow; district goals and objectives for 1993-94 and 1994-95; inservice and staff development activities; and the influence of technology. The product evaluation component describes specific outcomes of department objectives; program evaluation; assessment; student information; and technology. Finally, the department identifies plans for the future. (JLB)

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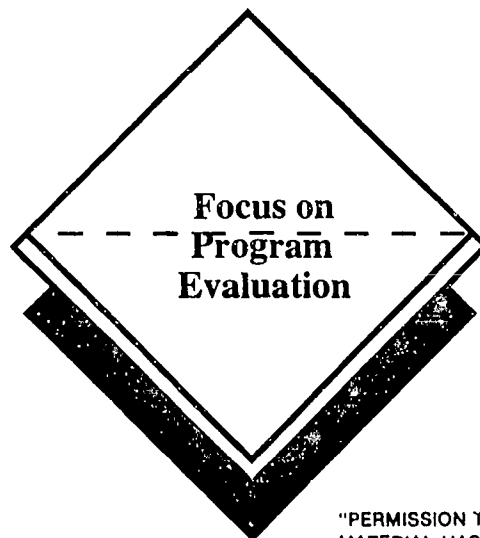
PLANNING/EVALUATION REPORT

Department of Information Management

PROGRAM EVALUATION	ASSESSMENT
STRATEGIC PLANNING	RESEARCH
STUDENT INFORMATION	
TELECOMMUNICATIONS	TECHNOLOGY

Des Moines Independent Community School District
 1800 Grand Avenue
 Des Moines, Iowa 50309-3399

August 2, 1994



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Morris Wilson

IR 016826

Department of Information Management Evaluation Abstract

CONTEXT EVALUATION

The Department of Information Management provides leadership and management services for the district in the areas of strategic planning for district improvement, technology, telecommunications, accountability, program evaluation, research, testing/assessment, and student information.

The department, formerly known as the Department of Evaluation, Research, and Testing, received its present title in July, 1990. With the change in title came a corresponding change in function and a movement away from a concentration on evaluation, research, and testing to a more integrated role that stressed strategic planning as the centerpiece for all other departmental functions.

INPUT EVALUATION

The operational budget for the department is approximately 1.1 percent of the district's operating budget. Excluding personnel costs, the Fiscal Year 1994 budget for the department was \$808,881.00. There are 25.1 full-time equivalent (FTE) staff who perform administrative, technical or clerical duties in the areas of strategic planning, technology and telecommunications, program evaluation, testing, research, and student information. The budget for staff in FY 1994 was \$988,331.40.

PROCESS EVALUATION

The department is heavily involved in the evaluation component of the strategic planning process. This includes collecting and compiling outcome information from the evaluation of goals and objectives contained within school and district improvement plans and from the central office staff's responsibility statements. The current program evaluation system centers around the district's needs for evaluation information in all programs and service areas. Administration of student assessments respond to the district's needs for student outcome information. Student information fills requests for records to assist students in obtaining further education and employment and also generates numerous district and state reports annually. Implementation began on a five-phase plan that will provide technology to prepare students for working in an information based society, improve administrative record keeping, and enhance student and staff productivity.

PRODUCT EVALUATION

Specific outcomes related to Department of Information Management responsibilities included:

- Preparation and distribution of 63 school information bases that provide extensive information for planning.
- Development and administration of an instrument to measure fiscal efficiencies.
- Assistance provided to authors as twelve program evaluation reports were prepared and presented.
- Development of eight new criterion-referenced tests.
- Preparation and presentation of a comprehensive assessment report with information related to the newly established 70 percent standard.
- Continued implementation of the longitudinal student database.
- Preparation of a strategic long-range technology plan adopted by the Board on September 7, 1993.

- Continued progress toward goal of installing a telephone in every classroom by December, 1995, indicated by installation of over 900 telephones since 1992.

FUTURE PLANS

Identified needs result in plans for the future that include the following:

- Stronger emphasis will be placed on addressing the district mission, needs prioritization and fiscal efficiencies in program evaluations.
- Development of a more comprehensive assessment system to support teaching and learning is planned.
- Long-term storage of student records will be addressed.
- Continued progress toward electronic transfer of student records is planned.
- Revisions of the technology plan that reflect activities actually scheduled for 1994-95 and results of the RFP for administrative systems are planned.
- Replacement of the district telephone switch will be undertaken.

A copy of the complete evaluation report is available upon request from the Department of Information Management, Des Moines Public Schools, 1800 Grand Avenue, Des Moines, Iowa 50309-3399, telephone: (515) 242-7839. Copies of all program evaluations are also available through the Educational Resource Information Center (ERIC) and Educational Research Services (ERS).

TABLE OF CONTENTS

DISTRICT MISSION AND DEPARTMENTAL RESPONSIBILITY STATEMENTS	1
CONTEXT EVALUATION	
Overview of Department Functions.....	2
Recent Developments.....	5
Policies, Standards, Regulations.....	14
INPUT EVALUATION	
Budget and Expenditures	16
Human Resources	17
Technology Cost Summary.....	18
Technology Purchases	18
Cost of Inservice/Staff Development	19
Materials in Use	19
Equipment in Use	20
Community Resources	21
Space Allocations	21
PROCESS EVALUATION	
Work Flow Information.....	22
District Goals/Objectives, 1993-94 and 1994-95	31
Inservice/Staff Development.....	32
Influence of Technology	34
PRODUCT EVALUATION	
Strategic Planning.....	35
Program Evaluation.....	36
Assessment	37
Student Information	40
Technology	42
FUTURE PLANNING	45

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**Des Moines Independent Community School District
Des Moines, Iowa**

August 2, 1994

DISTRICT MISSION STATEMENT

The Des Moines Independent Community School District will provide a quality educational program to a diverse community of students where all are expected to learn.

DEPARTMENTAL RESPONSIBILITY STATEMENT

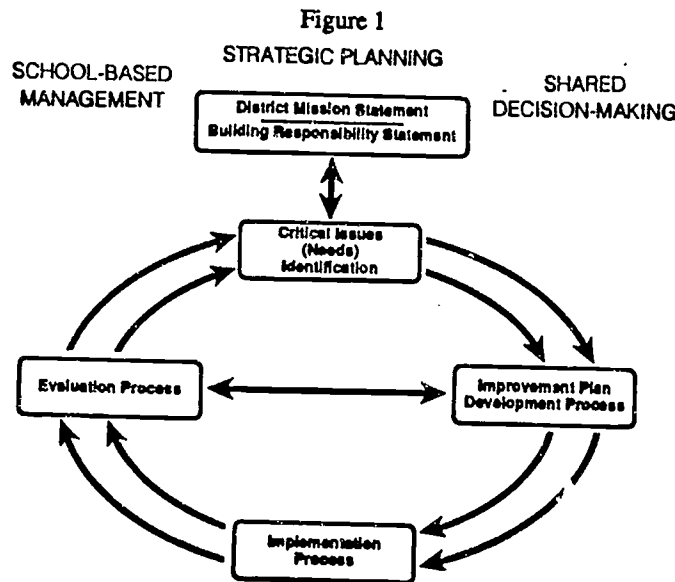
The Department of Information Management provides leadership and direction for the district's planning, technology, accountability, program evaluation, research, testing/assessment and student information.

CONTEXT EVALUATION

Overview of Departmental Functions

The Department of Information Management integrates several specialized functions, (evaluation, assessment, research, student information, technology, and telecommunications) into a role that stresses strategic planning as the centerpiece for all other department functions. Figure 1 portrays the major functions in the district's method of school-based management through shared decision-making (SBM/SDM). The Department of Information Management maintains a schedule and monitors both school and district strategic planning activities. In the figure, the outside circle represents district activities while the inside circle represents building activities.

How do things get done in a top-down bottom-up environment?



The department continues to be heavily involved in the evaluation process, which generates and uses quantitative and qualitative information upon which to base decisions. The schedule for program evaluation reports presented to the Board of Directors is developed and maintained by the department and assistance is provided to program evaluation authors as reports are prepared. The department is also responsible for collecting and compiling outcome information from the evaluation of goals and objectives in school and district improvement plans. It is devoted to the management of information to identify areas in need of improvement. In effect, the department's role in program evaluation has changed from "doing" to "teaching and coaching."

The academic testing program provides student achievement information to improve teaching and to increase learning. Purposes of the program are to: 1) assess student learning, 2) diagnose instructional need, and 3) provide information for program evaluation. Specific objectives of the academic testing program are to: 1) allow the teacher to monitor student learning and make subsequent instructional decisions, 2) provide information to students, parents, and school personnel for making instructional decisions, 3) provide achievement data for conducting program evaluations, 4) provide achievement data as one component of student progress reporting, 5) provide necessary information to meet state and federal guidelines, and 6) ensure that the academic programs of the Des Moines Public Schools compare favorably with those of other districts.

The district research committee reviews requests from individuals or groups to conduct research with district students or staff. When the committee (building staff and administration; central office staff) approves a request, researchers may contact buildings to request participation. Building staff can be confident that a project will likely enhance the educational process in the district and are generally willing to participate if the research committee has approved the study.

The student information section of the department manages the student records in the information database and works very closely with Mid-Iowa Computer Center (MICC), building and central office staff to efficiently collect data, interpret information, and make it accessible to those who need it. This section also facilitates the transfer of individual student records inside and outside the district and generates several major reports for individual buildings, the district, and the state.

The department coordinates planning, implementation, and support of technology in the district. A district technology plan was developed in 1984 that set the pattern for technology use in the district until the current plan, *Technology: An Educational Investment in the Future*, was adopted on December 14, 1993. During this period, planning and purchasing was coordinated by the District Technology Committee. The District Technology Advisory Committee membership included the District Technology Committee

The department manages information in the areas of program evaluation, strategic planning, assessment, research, student information, technology, and telecommunications.

and individuals from the community and other stakeholders to review district activities and give advice. The current technology plan is available in the Department of Information Management.

Following the adoption of the comprehensive technology plan, the Technology Plan Implementation Team was formed by reorganizing the previous District Technology Committee and the Technology Advisory Committee into task forces charged with implementing the district's technology plan. The following is a summary of the responsibilities of each of the task forces.

<u>Task Force</u>	<u>Responsibility</u>
RFP Development	Plans and develops all RFPs related to the technology implementation plan
Marketing and Priorities	Develops strategies to market the plan internally and externally; recommends what will be reduced or delayed if funds are not available
Policies and Procedures	Drafts necessary policies and procedures to provide legal and administrative foundation for use of technology
Budgeting and Accounting	Identifies funding to support implementation of the technology plan and reviews accounting procedures to ensure accountability
Curriculum Readiness	Prepares district curriculum and staff for integration and use of technology as an instructional tool
Evaluation and Reporting	Monitors implementation activities and reports to Technology Plan Implementation Team, Administrative Council and Board of Directors

The Technology Consultation Committee is composed of district staff with expertise and positions where they can provide technical advice on the most appropriate hardware and software. The committee meets monthly to review a list of recommendations, share information on current technology, and to discuss trends. The overall concern of the committee is to support the district technology plan and mission.

The department's computer repair technicians install and repair all computers and computer related equipment. Office repair technicians install and repair office equipment, typewriters, and digital duplicators. Audio-visual technicians repair all overheads, tape recorders, VCRs, and camcorders. They also maintain the equipment used in the two-way interactive television classrooms.

Department staff work with curriculum supervisors, student services coordinators, other districts, and other educational agencies to coordinate the use of the two-way interactive television system. The system is controlled by computer, schedules are entered, and at the prescribed time the connections are made so that teacher and students can see and hear each other. The department works with the Department of Community, Adult and Continuing Education to coordinate the logistics of making rooms available after school hours.

The department's telecommunications personnel install, maintain, and service data and video transmission equipment for the district. They also serve as a resource to other departments, supporting their efforts in a variety of areas such as radio communication, radio broadcasting, cable TV, security and energy management.

Recent Developments

During 1992-93, revised calendars for the process of strategic planning, at both the school and district levels, were developed and implemented. The new schedule made it possible for schools to develop improvement plans in a more logical sequence. The School-Based Management/Shared Decision-Making (SBM/SDM) Demonstration Project was expanded to five additional schools. A model Comprehensive School Transformation Plan (implemented during 1993-94) was designed to carry demonstration project activities to all schools. A historical timeline detailing the implementation of strategic planning in the Des Moines schools is available from the Department of Information Management.

During 1993-94, a Comprehensive School Transformation Plan was implemented in all schools.

Membership of the Strategic Planning Committee was expanded in 1992-93 to balance minority representation with the district's enrollment. A revised schedule for both district and school improvement planning that encourages long-range planning and visioning was developed and implemented in 1992-93. A working subgroup of the Strategic Planning Committee has devoted nearly two years toward developing district belief and vision statements as well as redefining key words and phrases in the district mission. Schools have been encouraged to develop improvement plans with objectives that focus on student learning, long-range planning and visioning. School information bases (databases) have been continually improved by expanded analyses, disaggregation of data and graphic presentations. All schools in the district including Cowles, Central Campus, Smouse, Van Meter, and Orchard Place receive a database.

The first cycle of CIPP program evaluations was completed in March, 1993. During this cycle, 41 program evaluations were presented to the Board of Directors. Prior to the beginning of the second cycle, the program evaluation calendar was revised to reflect a more logical ordering of presentations. This reduced both the number of presentations and the length of time to complete the cycle. Beginning in January, 1994, separate work sessions following program evaluations were no longer scheduled. Instead, board members discuss the program with staff following the oral presentation. There is now a single evaluation model with guidelines for both academic and service areas.

Changes to the district assessment program approved in 1991 included moving the district's standardized testing program to February (from fall) beginning with the 1992-93 school year. The Iowa Tests of Basic Skills (ITBS) for grades 3, 4, 6, and 7, and the Iowa Tests of Educational Development (ITED) are given in matrix sample to grade 10. When the Des Moines Plan program reverted to Chapter 1 during the 1992-1993 school year, the amount of required student testing was reduced. Now, only students in grade 5, whom teachers feel need additional services, take the reading and mathematics checkpoint tests. Similar students in Grade 8 take the reading and mathematics checkpoint tests if those middle schools need the assessment information to conduct preliminary scheduling of students into high school courses.

In the past, objectives-based assessment results were reported as district average scores, to reflect how well an average student performed on a specific test (i.e., how well the average student mastered critical objectives or concepts in a subject). The Superintendent, in the 1992 *State of the Schools Report*, indicated the district would be establishing a standard of 70 percent as a baseline criterion to judge mastery of subject matter. This *mastery metric* (70 percent standard) is intended to provide evidence of the number of students achieving a success rate of 70 percent or better in the subject matter of a given curriculum area. The 1991-92 objectives-based assessment data were the baselines against which future growth will be compared. Combined with the disaggregation of data, this allows the district to address three issues: 1) student achievement growth, 2) student achievement growth within disaggregated groups, and 3) the extent to which those disaggregated groups are achieving at the same rate across subjects. As of the 1992-93 school year, "objectives-based tests" were renamed "criterion-referenced tests" i.e. scores are compared to the 70 percent standard.

The mastery metric provides evidence of student achievement in various subjects.

Assessment Program Results, presented to the Board of Directors in October 1993, provided information regarding student achievement on standardized, criterion-referenced, and performance-based assessments. This report caused a review of the district's curriculum in the areas assessed, and generated re-examination of the district's assessments to reflect student achievement on critical objectives in the curriculum, measured by an appropriate assessment method. The following table shows the number of tests developed over the past three years.

Table 1
Test Development
1991-92, 1992-93, 1993-94

	1991-92	1992-93	1993-94
Number of Tests Piloted	4	8	7
Number of Tests Finalized	12	4	8

Microcomputers have dramatically increased productivity in the assessment area. Before, it took at least two months to analyze the end-of-year criterion-referenced test data. Currently, with MICC providing test data in a more usable format, the analysis time has been reduced to about two weeks. Cost savings of \$600 per Central Processing Unit (CPU) hour of MICC time have occurred. Personnel time for test data analyses and preparing data for building databases was cut in half, since the same analysis program can now generate the data for input into building databases.

Staff members have been cross-trained to provide more efficient service to schools in helping to solve minor technology problems.

Each elementary school now has a 386SX IBM microcomputer, which facilitates and reduces time spent on processing end-of-year criterion-referenced tests. In an attempt to enable the central office to better provide seamless support of minor technology problems that arise at the buildings, 10 members of the Department of Information Management and Department of Staff Development conducted a cross-training session to familiarize those in attendance with two test processing software programs (MicroScore and IMSplus) and basic hardware maintenance. This increased the number of departmental staff available to respond to problems from the buildings and central office.

Some assessment issues discussed in the first program evaluation report are currently unresolved:

- The Director of the Iowa Department of Education decided to cancel the work of the State Outcomes Task Force, although some school districts are involved in developing their own outcomes.
- A national test of student achievement has not been initiated. However, the National Assessment of Educational Progress (NAEP) assessments continue to monitor student achievement on a sampling basis. Some of our district's staff are involved in the New Standards Project, a national movement to develop more authentic forms of assessment and to develop standards of excellence for these assessments.
- The use of computer adaptive testing and item-banking of test items has been delayed. These processes continue to be cost-restrictive to acquire and maintain at the district level.

There have been many improvements in the updating, maintaining, and storing of student records. The district has made important steps toward the electronic storage and transfer of student records since May, 1992. The student database which MICC developed was smoothly implemented in fall 1992. An immediate benefit of the new student database was the ability of building staff to check if a student was currently or previously enrolled in a school served by MICC. The birth information record, which was kept separately on paper, is now part of this electronic system. The old birth record cards have been microfilmed for long-term storage. On-line information is accessed daily to assist in the rapid, accurate transfer of student information. Two years of history of students who were enrolled in the Des Moines Public Schools in 1992-93 and 1993-94 are now available on-line.

Two years of history of students who were enrolled in the Des Moines Public Schools in 1992-93 and 1993-94 are now available on-line.

The new student database includes immunization records of all Des Moines Public School students. These are now updated and maintained by schools. The district led the state by being the first to complete the state immunization audit electronically. Having this information on-line is valuable to former students entering another school or college which requires this information; however, the real benefit will be if a disease outbreak necessitates the location of all students without the proper immunization. MICC will quickly print a report designed for ease in locating such students rapidly.

To assist in record keeping, MICC added a field to the student accounting system which shows each student's resident building. As with the immunization records, the initial data entry was done in the central offices, but each building is responsible for the maintenance of their students' records. This information was available in time for program placement planning for 1994-95.

In addition to preparing an annual report on student withdrawals, student information sends each school a list of students who have dropped four times during the year. This improves the accuracy of reporting and encourages follow-up.

District staff members are working to agree upon uniform district course numbers and course titles. This is essential for implementation of computer graduation auditing and meaningful electronic records. Having a computer file of course information also facilitates the preparation of the state Basic Education Data Survey (BEDS) each fall.

The Des Moines Public Schools did not create permanent paper records for kindergarten students in the fall of 1993; their permanent record is kept electronically. This is a very important step toward dependence on electronic rather than paper data. The information resides on the mainframe at MICC which is backed up regularly. The information is readily available but only to authorized personnel on designated terminals. The resulting reduction in paper records will not only save time, but will also alleviate storage problems.

The district's technology plan is a five-phase plan that will provide technology to prepare students for working in an information based society, improve administrative record keeping and reporting, and enhance student and staff productivity. The district's strategic planning effort focused on identifying technology that would support the district's mission as well as the buildings' initiatives. During the development of the plan, a study team identified and listed many of the significant benefits believed to be derived from the implementation of the plan.

A wide variety of tools will be available to help students with individual needs and allow them to work in an enriched learning environment which will increase individual student achievement. Instruction can focus on increased problem-solving and critical thinking skills; there will be the ability to match student learning style with appropriate technology; there will be increased student information, communication, and creativity; and there will be increased accountability for personal progress.

Reduction in paper student records will save time and alleviate storage problems.

Technology planning focuses resources on the district mission.

Technology will significantly reduce the amount of time staff use for communicating with parents and staff, accessing student information, keeping records, assessment development, and taking attendance. As a result, teachers should have more time to redirect their energies toward other activities, such as individualizing instruction. If each teacher in the district were able to redirect 15 minutes per day, the overall redirected hours for teachers throughout the district would be 500 hours per day, or 90,000 hours per year, the equivalent of 13,333 additional instructional days per year. This equates to approximately 3.1 million dollars of instructional time. On an individual basis, a teacher could redirect 45 hours per year or the equivalent of seven instructional days. Redirected time can be expected for other district work groups including building principals, central office personnel, and a variety of support personnel.

Technology will assist teachers in redirecting efforts toward providing instruction.

District-wide, technology will improve the equalization of student opportunities, increase ability of students to be competitive in the world, and enhance skills for life-long learning. Graduates will leave the district with higher quality skills. Staff will be able to plan and make decisions by having access to information at all levels, make more efficient use of materials, provide better services through better use of resources, improve accountability, reduce duplication of effort and paperwork, and improve district-wide material sharing and problem solving.

The community will benefit from the implementation of the technology plan. Graduates will be better prepared for the work force and/or higher education, schools will be more competitive in the educational market, there will be improved resources for community education activities and programs, and there will be more efficient and effective use of district resources.

The study team also identified cost savings that will be realized over the five phases. For example, in the area of energy management, technology will help to reduce the district's operating costs by at least 25 percent of current energy operating expenses in the final year of implementation. Automating the media centers will also result in significant savings. Duplication of hard copy

Implementation of the technology plan will save the district more than \$5,000,000.

reference materials will be greatly reduced as these references are made available on computer through a district-wide network. Security systems for each library media center will reduce the number of books that must be replaced annually because of theft. When the system is totally implemented, it will result in a savings of approximately \$100,000 each year for the replacement of books. Other areas from which cost savings could be derived include food service, transportation, substitute calling, warehousing, and inventory control.

The benefits and cost savings are results of implementing recommendations in the technology plan that address district needs. The recommendations are listed in the plan with clarifying comments, a description of the major phases of implementation, discussion of specific training needs associated with the implementation of each recommendation, and the costs to implement the recommendations.

The Budgeting and Accounting Task Force of the Technology Plan Implementation Team identified over \$2,156,102 in the 1994-1995 budget to implement the technology plan. The Evaluation and Reporting Task Force presented a status report to the Board of Directors in April, 1994. These reports will be presented three times yearly.

Since 1992, the district has implemented a high capacity fiber optic backbone to all high schools. Classes are taught daily on the district system. Students in Des Moines and Urbandale have taken classes that would not be available to them without the system. The two-way interactive television system has been connected to the Iowa Communications Network (ICN). This ICN connects high schools and other educational agencies in all counties of the state, the three state universities, and a number of private colleges. Des Moines has participated with Drake University and Iowa State University by hosting remote classrooms for graduate level courses. Inservice activities for teachers have involved other school districts across the state.

Information Management staff chaired a committee of teachers and administrators that developed recommendations on how to integrate technology into the classroom. Key issues addressed in the report were: (1) when and how to teach keyboarding skills; (2) how to select appropriate software for instruction; and (3) changes in teaching styles to gain maximum effect of using technology as

a teaching and learning tool. The recommendations from that committee were given to the Curriculum Readiness Task Force of the Technology Plan Implementation Team for use in their activities.

Since 1992, 900 classroom phones have been placed in 4 middle schools and 14 elementary schools. The entire system which calls for a telephone in every classroom will be completed in December, 1995. The PhoneMail system has been expanded to provide additional capacity for central office use and to provide the Homework Information System. The Homework Information System allows parents to call a number and listen to building announcements and then to individual teacher messages. This has been implemented in 16 buildings.

By December, 1995, there will be a telephone in every classroom.

The district has also participated in a pilot project with AT&T to provide a multiple language translation service. Staff, after training, can call an interpreter to assist communication with parents or students who do not speak English. The service provides interpreters in over 100 languages and dialects.

Since May 1, 1992, the number of computers used in the district has increased from 2,686 to 4,320. About 76 percent are used for instruction and the balance for administrative purposes. The ratio of computers to students for elementary is 1:17. The ratio is 1:10 for middle schools and 1:09 for high schools. A Technology Service Manager was added to the computer repair staff. This position is responsible for managing the computer and office repair staff.

With a few exceptions, all buildings now have high speed digital duplicators. These have replaced the spirit or "purple" duplicators. Staff now have the ability to provide quality copies at a relatively low cost per copy. Only three schools do not use the duplicators as their needs do not require high volume duplication and are served by photocopy machines. X•Press has been installed in all high schools, eight middle schools, and nine elementary schools. Through the television "wire service," news articles can be captured on computer. Students and staff can often read news articles on current events before they see them on television news or in the morning paper.

Building staff continue to add technology as a resource. Instructional materials adoptions for Educational Technology, Language Arts, Mathematics, Science, and Social Studies have substituted software and hardware for textbooks. The district has replaced all but four typewriter labs at the high schools with computers. As funds become available, the remaining four labs will be replaced.

Policies, Standards, and Regulations

The policies cited below help govern operations in the areas of strategic planning, program evaluation, assessment, research, student information, and technology.

Various policies govern departmental operations.

The major legislation governing the strategic planning processes for the State of Iowa are 280.12 and 280.18 of the Iowa Code and subrule 12.3(3), Iowa Administrative Code, enacted in 1989. These dictate establishment of a School Board Advisory Council and require the district to conduct needs assessments and establish goals.

Des Moines Independent Community School District Policy 600, Code 608 states "the administration shall submit evaluation reports to the Board of Directors concerning programs and curricular services." Administrative procedures related to this policy were revised January 19, 1993.

Policy Series 600, Code 640 states "In order to provide unbiased assessments of student academic growth, the Des Moines Independent Community School District will provide a district-wide testing program. Specialized testing will also be undertaken as part of unique, individual student instructional requirements and educational services." Administrative procedures related to this policy were revised January 19, 1993 (Codes 640 and 640.1).

Policy Series 600, Code 665 states "Requests for research by staff members or outside organizations shall be reviewed and approved by the Associate Superintendent for Teaching and Learning." Administrative procedures related to this policy were revised January 19, 1993 (Code 665).

Policy series 500, Code 513 states that "the district adheres to federal and state laws as they relate to student records and distribution of student rosters." Administrative procedures related to this policy were revised February 4, 1992. Code 513.1 of the same series discusses rights of custodial parents. This policy states that "subject to any contrary direction from any court of competent jurisdiction, non-custodial parents shall, upon written request, have the right to receive notices, newsletters, student records and other pertinent information relating to their child. All written requests will be honored until withdrawn." This policy was adopted July 31, 1990 and last reviewed during 1990-91.

Chapter 281-15.1(256) of Iowa Code states "... give guidance and direction for the use of telecommunications as an instructional tool for students enrolled in kindergarten through grade 12 who are served by school districts, ..."

Education standards subsection 12.5(10) states "The board shall adopt a plan for the efficient and effective use of technology in the instructional program. The plan shall provide for the understanding and use of current technology by staff and students and shall include a procedure to review the district's utilization of technology as a teaching and learning tool."

The 1976 Copyright Act lists restrictions and guidelines for protecting the rights of authors. The law applies to computer software, video, film, and published text. Federal Communications Commission rules control the use of two-way radios used in the district.

INPUT EVALUATION

Budget and Expenditures

The operational budget for the Department of Information Management includes line items pertaining to program evaluation, strategic planning, assessment and research, student information, technology and telecommunications.

For each area, Table 2 shows amounts allocated and expenditures for FY1994 and amounts budgeted for FY1995. These figures exclude personnel costs which are shown in Table 3. The total budget for the Department of Information Management (including personnel costs) is approximately 1.1 percent of the district's operating budget.

The operational budget for the Department of Information Management was approximately 1.1 percent of the district operating budget in Fiscal Year 1994.

TABLE 2
Budget Expenditures
Department of Information Management
(as of May 31, 1994)

	FY1994 Budget	FY1994 Expended	FY 1995 Budget
Consulting Services ¹	\$61,082.00	\$30,983.92	\$61,082.00
Evaluation Services ²	68,566.00	47,017.58	42,016.00
Assessment	58,330.00	42,095.17	58,330.00
Technology ³	208,457.00	233,418.55	334,875.00
Telecommunications	<u>412,446.00</u>	<u>371,789.91</u>	<u>484,446.00</u>
TOTAL	\$808,881.00	\$725,305.93	\$980,749.00

¹Includes criterion-referenced test administration and development, Mid-Iowa Computer Center charges, surveys, microcomputer upgrades, software and equipment.

²Includes strategic planning, program evaluations, and student information.

³Includes Department of Information Management accounts only.

Human Resources

The following positions in the Department of Information Management are filled by persons who perform duties in the areas of program evaluation, strategic planning, assessment and research, student information, technology and telecommunications. The full-time equivalency (FTE) and FY1994 dollar cost for each of these positions is indicated. In FY1994, the total budgeted salary cost for these positions (including benefits) was \$988,331.40.

TABLE 3
Full-Time Equivalency (FTE) Positions
Department of Information Management

<u>TITLE</u>	<u>FTE</u>	<u>FY94 Salary</u>
Director of Information Management	1.0	\$60,347.00
Program Evaluator: Eval, Surveys, Planning	1.0	45,160.00
Program Evaluator: Assessment, Research	1.0	49,581.00
Evaluation/Technology Specialist	1.0	35,206.00
Testing Support Specialist	1.0	22,435.00
Student Accounting Specialist	1.0	32,550.00
Supervisor of Technology	1.0	54,478.00
Telecommunications Consultant	1.0	41,592.00
Telecommunications Specialists	2.0	74,899.50
Telephone Technicians/Repair	2.0	41,925.00
Technology Service Manager	1.0	31,550.00
Computer Technicians/Repair	2.0	52,832.00
Office Technicians/Repair	2.0	46,155.20
Audio Visual Technicians/Repair	3.5	93,173.00
Clerical	4.0	69,606.00
Interns	0.6	11,700.00
Fringe Benefits (29.5%)		<u>225,141.10</u>
TOTAL	25.1	\$988,331.40

In addition, two high school co-op students are employed on a part-time basis. These students are paid with funds from the high school they attend.

Technology Cost Summary

The district's investment in technology to support learning and administration includes purchasing equipment as well as services. There are several sources of funds for technology purchases. Table 4 provides a summary of expenditures for 1993-94 by source of funds. It should be noted that these expenditures are in addition to the technology expenditures shown in Table 2 that are included in the Department of Information Management budget.

TABLE 4
Technology Purchases
1993-94

<u>Source of Funds</u>	<u>FY1994 Expenditures</u>
Department ¹	\$878,020.38
Textbook	37,140.00
Activity Funds	131,885.85
Building Funds	170,541.10
PTA Funds	53,219.02
Building Allocated Technology Funds ²	128,076.43
City Block Grant	43,200.00
Total³	1,442,082.68

¹Of this expenditure \$638,991.01 was indicated for equipment assigned to a Central office department, the remaining to buildings.

²Building portion of technology budget for 1993-94. These funds were placed in individual building accounts.

³This compares to a total expenditure of \$406,932 in FY1992.

Cost of Inservice/Staff Development

Department of Information Management professional and clerical staff attend the Des Moines Public Schools Professional Educators' Convention annually. In addition, staff members attend various district staff development courses to gain new skills and applications. The Department of Information Management provides inservice for principals and central staff administrators and program evaluation authors on various components of the strategic planning process such as program evaluation preparation and school information base interpretation. Cost of these workshops is primarily limited to printing materials for distribution.

Staff members attend a variety of activities to gain new skills, and are members of many professional organizations.

Staff members maintain professional memberships in national organizations and their state affiliates. Attendance at national or state meetings of these organizations is not only beneficial for the purpose of receiving training and information on state of the art methods, but also has afforded staff members an opportunity to deliver presentations and provide information to others on activities occurring within the district. The department currently has a budget for out of district travel of \$4,250. This covers the cost of travel, training and staff development for all of our employees. In the case of technical employees, this can be quite expensive and entail travel cost and several days of expenses out of the city for a number of people.

Materials in Use by the Department

- Sixteen millimeter microfilm cartridges for permanent storage of student records
- Forty-five megabyte removable cartridges for auxiliary electronic storage of student records
- Software:
 - FileMaker, FileMaker Pro - for basic databases
 - 4th Dimension - for relational databases with graphic capabilities
 - Wingz - for spreadsheets with graphics
 - Microsoft Works, Word - for word processing

- CRICKET Graph - for graphing data
 Persuasion, Powerpoint - for developing presentations
 MacProject Pro, MORE - for development of flow charts and timelines to monitor projects
 Aldus Pagemaker - for page layout
 SPSSX microcomputer version - for analysis of surveys and other quantitative data;
 Microscore - for scoring answer sheets and printing reports
 SuperPaint, MacDraw, MacDrawII, ClickArt, Hypercard, Illustrator, Freehand--for constructing graphics for tests
- Criterion-referenced and standardized testing materials
 - Instructional Management System (IMSplus) - system for monitoring student progress in reading and mathematics used by the Teaching and Learning Division
 - CNN Express - a cable television newswire used to enhance social science instruction

Equipment in Use by the Department

- Macintosh computers/workstations (19)
- DOS/Unix computers (6)
- CD-Rom drives (6)
- Laser printers (2)
- Laser disc players (2)
- Scanner and printer for test scoring (2)
- Microfilm camera and reader/printer for student record storage (1 each)
- Copy machine (2)
- Modems (10)
- Lektriever for storage of special education records (1)
- Vault for storage of microfilmed records (1)
- VCR (3)
- Newton Personal Digital Assistant (1)
- SFNCOR Audio-Video Analyzers (2)
- Cellular phones (2)
- Pagers (7)

Community Resources

Community resources are used during composition test scoring. Included are teachers on released time, parents and retired teachers. Approximately 40 readers are paid at a rate ranging from \$7.25 to \$10.25 per hour depending on their level of responsibility.

Space Allocations

The Department of Information Management maintains a test storage and packing facility at the district Transportation and Food Service building consisting of one large and two smaller upstairs rooms. This is also where composition scoring is conducted. Within the department office is a workroom containing bins for sorting test documents. Copies of all program evaluations are also stored in this workroom. Student records on microfilm must be stored in a vault; paper records are kept in a locked room inside another locked room. The department maintains a small research library stocked with a variety of books and periodicals which are available to department members or anyone doing research and seeking information. There is a computer and office equipment repair facility at the 1800 Grand facility as well as a repair center for audio visual equipment at the Transportation and Food Service building.

Physical space arrangements limit the level of services that are available to be provided.

Space arrangements and size are major problems. The separation of different equipment, repair and installation functions across two sites precludes vital cross-training of repair staff. This, in turn, reduces the level of services which can be provided during peak repair or installation times. New equipment installation, delivery, and repair work may be delayed as a result. The amount of space for repair and installation work is also very limited. The physical space for student information is separated from the rest of the department at 1800 Grand. This is a considerable inconvenience and, again, reduces the level of services the department provides. We currently occupy six different areas located in two buildings.

PROCESS EVALUATION

Work Flow Information

The process of strategic planning for school-based management through shared decision-making is illustrated by the circular model (see Figure 1, page 2). In a top-down bottom-up management system, the district improvement plan is based, in part, upon consideration of needs identified at the school level. Central office staff responsibility statements are also developed with attention to needs expressed in school improvement plans.

The Department of Information Management is heavily involved in the evaluation component of the strategic planning process. The department is responsible for collecting and compiling outcome information from the evaluation of objectives and goals contained within school and district improvement plans and from central office staff responsibility statements. This information is printed in the annual *Strategic Planning Report*. The department also coordinates the development of drafts of both the District Improvement Plan and Administrative Work Plan. A review of all school improvement plan drafts is provided annually to the Executive Directors of Elementary/Early Childhood and Middle and High School Programs and then forwarded to the schools in time for revisions to be made. Staff also serve on school improvement teams to assist in the development of school improvement plans.

The department maintains two calendars related to strategic planning, a historical timeline outlining key events from the institution of the strategic planning effort to the present and a yearly calendar which lists in more detail events for the current year. The most recent copy of each calendar may be obtained from the Department of Information Management.

The district Strategic Planning Committee is a group of 30 administrators, teachers, board members, parents, business persons and other employees. This group meets to consider and coordinate a variety of matters pertaining to strategic planning. During 1993-94, a subcommittee of this group was involved in drafting belief statements and redefining mission statement terms.

The current program evaluation system centers around the district's needs for evaluative information. Evaluation of all district programs and service areas was instituted in April of 1990. The process adopted by the district is the CIPP model (CIPP is an acronym for: context, input, process and product) which was developed by Dr. Daniel Stufflebeam and others in the late 1960s. There are currently 29 programs and service areas in the district for which evaluations are being prepared. Written reports are submitted to several groups for review to improve the quality before submission to the Board of Directors. The Department of Information Management facilitates all stages of the process. A master calendar outlining each of the steps is maintained, revised as necessary, and distributed regularly by the Department of Information Management.

Program evaluation reports provide information used in planning for 29 programs and service areas.

The steps outlined below are followed sequentially for all reports.

<u>Activity</u>	<u>Prior to Board Presentation</u>
Arrange for media/graphics arts services	3 months
Critique of written draft by Department of Information Management	5 weeks
Presentation of written report to Division Cabinet (Teaching and Learning or Management Services)	4 weeks
Presentation of written report to Administrative Council	3 weeks
Written report to Board for information	2 weeks
Board presentation/discussion	

The process of developing a criterion-referenced test from conception to first administration contains 24 steps and covers about a two-year period. The process includes activities by subject area supervisors, teachers, and testing personnel. Normally, the entire first year is spent identifying critical objectives, deciding which objectives are measurable using a multiple-choice, paper-and-pencil format, and writing items to pilot test. Data analyses and production of a final form of the test are completed in the second year. Criterion-referenced tests are used as part of student evaluation and grading at the middle and high school levels and as curriculum evaluation instruments for grades two through twelve. The district's criterion-referenced tests primarily provide summative information (at the end of a course or school year).

Development of criterion-referenced tests is a 24 -step process that spans 10 years.

The computerized Instructional Management System (IMSplus) is currently being used for continuous progress monitoring in elementary buildings for reading and mathematics. Some buildings are using the system for music, and an interest has been expressed for using the system with the science curriculum. This system allows teachers to score tests and produce printed reports of student progress immediately and on-site.

The assessment process has become increasingly automated.

For district standardized tests, criterion-referenced tests and the district composition assessment, procedures are generally the same: test order forms are sent to buildings, requests are returned, tests are provided to and administered in the buildings, tests are collected, data are processed, and reports are generated. The timing of the process differs for each type of test.

For standardized tests (ITBS), the Department of Information Management works closely with MICC and the Iowa Testing Programs at The University of Iowa to automate as much of the document preparation for testing as possible. For the ITBS, student answer documents contain a bar code label, with which student demographic information on a data tape is identifiable. This eliminates the need for students or teachers to spend time entering data on the documents before the testing begins, and facilitates disaggregation of data and other analyses once the data tape is returned to the district for analysis by department staff.

End-of-course criterion-referenced tests are designed to assess student achievement on the critical objectives of a given subject area, as identified by the subject-area teachers and supervisor. After tests are administered, they are processed at each building, and results are immediately available to teachers. Data from all buildings are electronically transferred to MICC and combined with data from the same test for all other buildings to create district-level reports. Individual student test data are then transferred to the district test data base at MICC, making scores accessible on-line from each building. Building staff may only access scores of students assigned to their building.

Since the district composition assessment is performance-based, it requires a more non-traditional method of processing. Each paper that is written by a student is scored by two readers who have been trained in the rating system used by each grade level. Discrepancies are resolved by a third reading. The scoring process takes approximately four weeks of half days.

Table 5 shows the amount of time devoted to student assessment using the district's standardized, criterion-referenced, and composition assessments. While it is acknowledged that some groups are not tested and others are assessed more than the average, the total time spent by any single student on these three assessments is less than one percent of the time students spend in school.

The composition assessment is the district's major performance assessment.

TABLE 5
Time devoted to district assessment of student achievement.

	<u>1990-91</u>	<u>1991-92</u>	<u>1992-93</u>	
Criterion referenced Tests				<i>Students spend less than one percent of their time in school taking district tests.</i>
Number of tests administered	68	66	61	
Time required	1 Hour/test	1 Hour/test	1 Hour/test	
Calculation based on: 180 day school year, 6 hour school day, and an enrollment of:	30,314 students	30,886 students	31,524 students	
Number of Student hours required	85,043	74,032	70,373	
Percent of School year	.0026	.0022	.0021	
Standardized Tests				
ITBS				
Grades	2, 4, 6, 7	3, 4, 6, 7	3, 4, 6, 7	
Time required	5 hours/ student	5 hours/ student	5 hours/ student	
Number of Students	8,440	8,426	8,414	
Number of Student hours required	42,200	42,130	42,070	
Percent of School year (for those students assessed)	.0046	.0046	.0046	
ITED				
Grade	10 (all students)	10 (matrix sample)	10 (matrix sample)	
Time required	5 hours/student	1 hour/student	1 hour/ student	
Number of Students	1,385	1,306	1,205	
Number of Student hours required	6,925	1,306	1,205	
Percent of School year (for those students assessed)	.0046	.0009	.0009	
Composition Assessment				
Grades	3, 5, 8, 11	3, 5, 8, 11	3, 5, 8, 11	
Time Required	2 hours/student	2 hours/student	2 hours/ student	
Number of Students	9,277	8,998	8,884	
Number of Student hours required	18,554	17,996	17,768	
Percent of School year (for those students assessed)	.0019	.0019	.0019	

The District Research Committee serves as a guardian against inappropriate use of time for district staff and students for research projects. The district, as an educational institution, is supportive of educational research efforts by both district staff and external parties. However, the primary obligation is to ensure that those parties conducting research with district staff or students have projects that will answer the questions that are being asked, enhance the educational process in the Des Moines Public Schools, and will not excessively intrude on staff and/or students.

*The District
Research
Committee
reviews
research
proposals from
external
agencies.*

The committee is scheduled to meet five times during the school year. The committee convenes to discuss and act upon each request submitted by interested researchers. Ethical principles for the use of human subjects in research, established by the American Psychological Association (APA), are used in part, as the foundation for the review process. Following the committee's decision, a letter to the researcher is signed by the committee chair and the Associate Superintendent for Teaching and Learning, informing the researcher of the committee's decision, and if not fully accepted, the issues that must be addressed in order to be reconsidered.

Projects may be approved, conditionally approved, or rejected. Researchers of approved projects may contact buildings as stated in the proposals. Researchers of conditionally approved projects must submit requested changes to the committee chair for a second review (which may include additional review by a subset of committee members) and recommendation to the Associate Superintendent for Teaching and Learning. Researchers of rejected projects may not contact school staff. If desired, they may address any issues indicated in the rejection letter and resubmit the proposal for the next research committee meeting.

Provisions are in place through which some projects are exempt from the review process. Projects exempt from review include:

- studies conducted by staff within the district as part of program evaluations,
- data collection used to evaluate building objectives,

- projects that are teacher-initiated and involve one's own classroom or are carried out within one's own building (with the principal's approval), and
- selected requests for participation in studies from federal or state agencies (or their contractees).

These studies are generally approved by the Superintendent or his designee, and buildings are asked to cooperate by providing the data needed.

Student records are important for employment and further education. Schools, businesses and former students request records by US Mail, bag mail, phone mail, facsimile transmission (FAX), or in person. Mail or phone requests are usually processed within three days, but during the busiest season in September, processing time is about ten days. When records are requested individually in person, they are usually helped within a few minutes. FAXed requests are filled via FAX the same day. Records of current students must be located, copied, mailed and filed. Records of former students must be printed from microfilm and mailed. Annually the records of students born within a given year are removed from the active file. Information that must be kept permanently is stored on microfilm. The film is checked and stored and the paper record is shredded. The camera in the area is also used by both Payroll and Human Resources departments.

Student records are important documents for employment and further education.

Information compiled about special education students is filed in paper (cumulative) folders at the central office. Professional special education staff check out the cumulative folders as they work with students. Copies of a student's permanent and cumulative records are requested when a student leaves the district or is served by another agency.

Student information staff work closely with building secretaries, registrars and other records personnel and were represented on the oversight committee that defined the longitudinal student database implemented in 1992. District level codes and course numbering are also coordinated by staff in Student Information.

Many responsibilities are ongoing and predictable. For example, the volume of work in September is several times that of the remainder of the year. Temporary help must also be used during that period. Planning responsibilities for student records include budgeting, preparing for annual projects, and improving the services provided to customers. Numerous state and district reports must be prepared annually.

The first problem in the student information section is to answer the question "What do they really want to know?" The next problem involves locating the information (i.e., is it contained in a published annual report, in a building database, on a personal computer file or on a tape at MICC?) When necessary, the information is reformatted in order to answer the questions.

The technology plan is the guide for technology planning and implementation. The recommendations and activities in the report are a focus for technology activities in the district. A function of the technology section is to coordinate the implementation of the plan.

The process for purchasing computer and related technologies is designed to ensure that: (1) purchases match the need of the individual; and (2) the district can provide support and repair service. Building and district staff contact members of the Technology Consultation Committee (see page 4) for advice on the technology that meets local needs. Considerations that influence recommendations include: the software that is requested matches the use; availability of training or inservice support; cost of repair and maintenance; filling a need within district or school improvement plans and in keeping with the district's technology plan; and maintaining some degree of consistency.

It is important to plan how to use technology.

The Technology Consultation Committee reviews requests for purchasing computers and related equipment.

Requests for new or additional telephone service are made through the building principal or department head to the appropriate director. If a building does not have telephones in each room, the principal and staff have to decide how to reallocate existing telephone resources. If the expense of providing the new service or telephone is to do some wiring and place a phone set, it is usually done. Jobs that require several work hours and expense are reviewed by the Telecommunications Committee and a decision is made to fund or return the request. The Telecommunications Committee also coordinates the two-way radio and cellular telephone service.

The Telecommunications Committee coordinates requests for new or additional telephone service and two-way radio and cellular telephone service.

Repairs of telephone, computer, and office equipment are all handled in a similar way. When equipment does not work, trouble calls are reported to the main reception desk at 1800 Grand. Information is recorded on appropriate repair orders. The repair technicians collect the information and deal with repairs as quickly as possible using a "first call-first response" pattern when possible. Since most calls require going to the site, the technicians usually deal with one section of the district at a time.

Audio-visual repair is located at the district's Transportation and Food Service facility. Repair calls go directly to the repair shop and may be delivered through a regular delivery system. When items are too large to be delivered this way, one of the repair technicians will go to the building to repair the item or to transport it back to the shop.

The Director of Information Management is a member of the Board of Directors for MICC. The Director and the Supervisor of Technology are members of combined MICC and district user committees that meet periodically to discuss administrative and instructional computing issues. The department and MICC work collaboratively on issues relating to networking, administrative systems and support for various data processing activities.

The connection to MICC is the key to good information management.

Department staff coordinate the use of the two-way interactive television system. The system is controlled by computer, schedules are entered, and at the prescribed time the connections are made so that teacher and students can see and hear each other. The department works with the curriculum supervisors, student services coordinators, and Department of Community, Adult and Continuing Education to determine classes and coordinate the logistics of making rooms available after school hours.

The two-way interactive television system is an excellent example of the use of technology to enhance instruction.

Departments housed at Cowles, Samuelson, and the Transportation-Food Service facilities are connected to the district's Local Area Network (LAN). The Wide Area Network (WAN) allows staff in all facilities to communicate by electronic mail, to access MICC through the network instead of separate wiring, and to share files on the file servers at the central office.

District Goals/Objectives 1993-94

The following goals in the 1993-94 District Improvement Plan relate to the Department of Information Management:

Goal 1:

Integrate technology into the teaching and learning plan for the 21st century

Goal 7

Improve the quality of district student assessment information

Goal 8

Develop and implement use of an instrument to measure district improvement

Goal 15

Implement the long range technology plan

District Goals/Objectives
1994-95

The following goals in the 1994-95 District Improvement Plan relate to the Department of Information Management:

Goal 8:

By the beginning of school year 1999-2000, 80% of elementary, middle and high school students will achieve at least 70% mastery on district criterion-referenced assessments

Goal 9:

The district will provide a safe and orderly environment for students and staff as documented by an increase in positive responses by students, staff, and parents to the Safe and Orderly Environment Section of the School Climate Survey.

Inservice/Staff Development

The department conducts an annual meeting for building principals in order to distribute and review school information bases and provide information as necessary related to planning functions. New principals attend a session in the fall to receive information on services provided by the department. In addition, a half day workshop is conducted at the beginning of each program evaluation cycle to review changes in the evaluation model with authors of reports. Other sessions are held as needs in this area dictate.

Staff members attend professional meetings and make presentations.

Staff members of the Department of Information Management belong to several professional organizations. When possible, state and national meetings of these organizations are attended and presentations are made at these meetings.

Organizations to which various Department of Information Management staff belong include:

- Association for Educational Communications and Telecommunications (AECT)
- American Educational Research Association (AERA)
- Iowa Educational Research and Evaluation Association (IEREA)
- Directors of Research and Evaluation (DRE)
- Association for Supervision and Curriculum Development (ASCD)
- Iowa Association for Supervision and Curriculum Development (IASCD)
- Institute for School Executives (ISE)
- Iowa "No Name: Evaluators (an informal organization of individuals involved in program evaluation in Iowa)
- Iowa Computer Using Educators (ICUE)
- International Society of Technology Educators (ISTE)
- Phi Delta Kappa (PDK)
- American Association of School Administrators (AASA)
- American Evaluation Association
- Northwest Evaluation Association (NWEA)
- National Council on Measurement in Education (NCME)
- American Home Economics Association (AHEA)
- Iowa Home Economics Association (IHEA)
- American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD)
- North American Society for Psychology of Sport and Physical Activity (NASPSPA)
- National Guild of Piano Teachers

Examples of professional meetings and workshops attended recently include:

- Des Moines Public Schools Professional Educators' Convention summer and fall conferences
- Weld County (CO) School District #6 Staff Development Conference
- Central Iowa Chapter of Association of Records Managers and Administrators, Inc. Seminar
- ICUE annual conference
- AERA; IEREA annual conferences
- ASCD annual conference
- IASCD fall and spring conferences
- IHEA annual conference
- First in the Nation in Education (FINE) conference
- Council of Chief State School Officers
- Iowa Curriculum and Instruction Conference (IC²)

The Department of Information Management also holds monthly departmental meetings that are attended by staff for the purpose of discussing and reviewing current and future projects, activities, and calendars.

Influence of Technology

Over the past decade, technology has become indispensable in all phases of information management activities. The increasing pervasiveness of technology has had a major effect on the speed of information transfer and productivity.

Faster computers and application-specific software have increased the production of tests on the computer (both text and graphics parts of tests). In addition, they have enabled modifications of tests in the development process to be achieved relatively easily. Copies produced on laser printers are camera-ready for duplication at printing facilities.

Microcomputer based statistical software provides a less expensive means of processing data and producing reports. Reduced costs result from not using a mainframe which incurs charges for use by the computer hour. Staff use the Internet to locate information that covers a range of topics, e.g., block scheduling, integrating technology into the curriculum, and software.

In the fall of 1993 MICC added a field to the student accounting database to record the resident building information for each student. This information was entered by January, 1994, and was helpful in planning to return students to their home buildings.

The new student accounting module greatly facilitates accessing student information. One valuable feature is that staff with the proper security can easily determine the district and building any student whose district is served by MICC attends. This facilitates both in-district and out-of-district transfers.

The school information bases are developed using data from MICC and formatted for ease of interpretation. The desktop computers make it possible to create a unique document for each school in the district.

The increasing pervasiveness of technology has had a major effect on the speed of information transfer and productivity.

PRODUCT EVALUATION

Strategic Planning

The department adheres to policies, standards and regulations discussed on pages 14-15 by carrying out the functions discussed in this section.

Specific recent outcomes of the strategic planning process for which the Department of Information Management has had major responsibilities include:

- Improvement of school improvement plan objectives. Considerable emphasis has been placed upon encouraging the preparation of performance objectives for school improvement plans that are long term and measurable rather than process oriented. Training for principals was provided. Objectives are sorted topically and distributed to all buildings to encourage networking among schools that have similar objectives.
- Preparation and distribution of the Strategic Planning Report annually in September. This document is the reference manual for strategic planning in the district. It also supplies nearly all documentation for a report to the Department of Education concerning sections 280.12 and 280.18, The Code and subrule 12.7(3), Iowa Administrative Code. This report is submitted annually on December 1.
- The annual *State of the Schools Report* is coordinated by the department. The report relates data to context, inputs, processes, products and future plans. Whenever possible, the data were disaggregated and a historical perspective provided.
- School information bases are prepared, distributed, and reviewed annually. There were 63 databases distributed in February, 1994 including 41 for elementary schools, plus Smouse and Cowles, 10 middle schools plus Orchard Place, and five high schools, plus the two alternative high schools, Central Campus and Van Meter. Building specific information provided in information bases included:

Building databases distributed annually provide extensive information to assist in development of school improvement plans.

school improvement plan response (previous year)
school improvement plan (current year)
enrollment information
school climate surveys
staff information
budgeted funds available
technology inventory
facility information
student achievement information
attendance information
student suspensions
destination plans of high school graduates

- Department staff were active on several committees whose task was to develop various portions of the Comprehensive School Transformation Plans.
- During 1993-94, the Strategic Planning Committee has focused on development of vision and belief statements and on defining terms in the district mission statement.
- During 1993-94, an instrument to improve fiscal efficiencies was developed and administered to all management services staff. Results were compiled and targets for needed improvements were established for each department.

Program Evaluation

In November, 1992, the Department of Information Management revised the prototype for preparation of program evaluations. This revision resulted in the development of a single document for both academic and service areas. It also identified "required and "optional" components for each section of the report.

Twelve program evaluations have been prepared and presented to the Board during the second cycle.

The Department of Information Management has monitored the preparation and presentation of 12 program evaluation reports since the beginning of the current cycle. There will be 17 additional reports to complete the cycle. The final report in the cycle is scheduled for presentation on December 5, 1995.

- A master schedule of program evaluations has been prepared including due dates for each step and procedures to be followed.
- Technical assistance to authors has included assistance in graphics and interpretation of data. All written report drafts have been critiqued by at least two individuals in the department before presentation to any other group.
- The Department of Information Management, in concert with the Associate Superintendent for Teaching and Learning, has developed a process to prioritize needs identified from program evaluation reports. Authors rank and provide cost estimates for implementation of needs. The intent is to provide useful input for budget development and to deal with competing needs and limited resources.

The Department of Information Management has provided assistance in evaluation design, data analysis, and survey development and interpretation for projects such as:

- Employee Health Benefits Survey
- Staff Development Professional Growth Survey
- School Climate Surveys
- Smoother Sailing Program Survey
- Senior Survey
- Destination Plans of High School Graduates
- Student Progress Report Survey
- Edco Student Credit Union Survey
- Southeast Area Census Study

Assessment

The district's testing staff worked with the subject area supervisors to develop quality assessment instruments. During the 1992-93 school year, two home economics, two science, and two social science tests were administered as new tests. During the 1993-1994 school year, one home economics,

one English, two foreign language, two mathematics, one social science and one language arts test were administered as new tests.

Various procedural and informational documents were produced by the district's testing program. Procedural documents included annual updates of the district's test processing (scanning) manual and the composition test scoring manual. Informational documents included various assessment reports that are produced and distributed throughout the school year.

Student assessment information was provided in various documents. In 1993, after midyear standardized test results were returned from the Iowa Testing Programs, summary tables were distributed to building principals, and an interim assessment report was provided to the Board of Directors for information (item 93-138). When information regarding criterion-referenced tests have been compiled, test graphs and computer reports of each test were provided to building principals and subject-area supervisors for their use in making instructional decisions. These reports list individual student achievement along with classroom and building-level achievement information. A comprehensive assessment report, containing assessment results from the previous year, was presented to the Board of Directors in the fall (93-230). Finally, assessment information specific to each school is provided in the school information bases, which are distributed annually to each school. Additional miscellaneous reports regarding student assessment information are provided to subject-area supervisors and to schools, based on specific needs and requests.

Assessment information is provided to stakeholders in various documents.

An earlier district goal focused on the examination and promotion of alternative forms of student assessment. However, the alternative assessment activities that teachers were already doing in the classroom had not been identified. During the spring of 1993, district teachers at all levels were surveyed in order to monitor alternative assessment activities already being conducted at the classroom level. Surveys were sent to 1,000 regular classroom teachers who were randomly selected from a directory listing of district teachers. After providing some initial information about alternative forms of assessment, teachers were asked to indicate the types of skills that they were integrating into their classroom activities, the types of activities that students were asked to perform, and the types of products they used to evaluate the identified skills and activities.

Surveys indicated that teachers who integrated many skills into instruction used a greater variety of assessment methods.

Responses were received from 234 teachers (134 elementary, 41 middle, 59 high). Based on the low return rate (23.4%), the interpretation of the results is limited to the responding sample. While no judgments can be made regarding the nonrespondents, information supplied by the respondents does indicate that many different activities and methods of classroom assessment are being used by this limited sample of teachers. In general, those teachers who integrated many skills into their instruction asked their students to do more varied activities, and assessed their students using a greater variety of assessment methods. A narrative analysis of responses to each question is given below. Complete results are available from the Department of Information Management.

Question: What types of skills are you integrating into your activities?

Analysis: Skills being integrated into activities seem to be related to basic skills or those activities that have received some emphasis in the educational research literature. Interestingly, skills related to lifelong learning and success in an information society, such as research, information gathering, self-assessment/reflection, technology, studying, and presenting are not being integrated as readily into instructional activities.

Question: What types of activities are students asked to do?

Analysis: While the types of activities that students are asked to do are less varied (or frequent) than specific skills, this is probably because a given activity may incorporate a number of individual skills. However, the lower percentages of activities used might indicate a need to broaden the repertoire of learning activities in order to provide more varied opportunities for students to demonstrate their mastery of instructional objectives.

Question: What types of products do you use to evaluate the identified skills and activities?

Analysis: It seems that the more traditional methods of assessment are being utilized in the classroom. Technology is receiving very limited use. Some teachers indicated that they use other forms of assessment as well (e.g., checklists). This might indicate a need to provide teachers with more information regarding the assessment of growth using classroom activities. Indeed, a staff development course on classroom assessment is currently offered.

Student Information

Various student information reports were completed and submitted or presented as required during 1993-94. Copies of all of the reports are available from the Department of Information Management.

The third Friday in September is the "as of" date for two annual state reports and two annual district reports as well as many other special reports throughout the year. The first report, the Basic Educational Data Survey (BEDS) is due the fourth Friday in September. This report contains the number of students in the district by building, grade, race, and sex and also includes teacher full time equivalencies by grade level. Another section reports course enrollments by building and by sex. This is complicated by the fact that Des Moines course numbers must be matched with Department of Education course numbers.

Several required student information reports were submitted during 1993-94.

Another report of enrollment, Certified Enrollment, is due to the Department of Education on October 1. Certified Enrollment determines our state funding. This report does not include pre-kindergarten students unless they are in special education. It includes a report on open enrollment, Des Moines students in non-public schools, and students for whom we are paying tuition to attend school elsewhere.

In-district reports include the Enrollment Report and the Minority Enrollment Report. These were most recently presented to the Board of Directors on October 5, 1993, and October 19, 1993, respectively. The Enrollment Report includes early childhood students served by the district and housed in the buildings, but not counted in the state's Certified Enrollment. Both reports include extensive graphics to illustrate trends and areas of concern. Elementary class size and class size frequency reports are also generated from this information. In addition, an Enrollment Projections Report was presented to the Board on November 16, 1993. Enrollment projections are based on a set of assumptions that dictate methods used to estimate future enrollment. The calculations are used to generate projected kindergarten enrollment and to project future enrollments in grades 1-12.

The Iowa Department of Education End-of-Year Non-Fiscal Survey is due August 1 and includes information about student withdrawals, 18 to 20 year-old students, diploma recipients, Post secondary Enrollment Options Act Supplement, and Follow Up Graduate Status.

The Certified Annual Financial Report (formerly SAR) includes information on average daily attendance and average daily membership which is provided by the department. This annual report is due June 15.

The Withdrawal Report is prepared each summer to present data on students who withdrew from school before graduation. The report, which includes data from the alternative high schools, utilizes extensive graphics and building-verified data.

Destination of Graduates and Senior Letters involve downloading student information from MICC, designing appropriate forms, importing the data, and printing on laser printers. Information on the destination plans of graduates is summarized by school and provided to the Supervisor of Guidance and Counseling and the student services coordinators at each high school.

An annual project is the Grades 5-6 transition. Each student promoted to Grade 6 receives a personalized letter (computer-generated) indicating what his/her home middle school will be and what options may be exercised in lieu of attending that school. The elementary schools enter new data into MICC about prospective middle school students. Appropriate information is then downloaded, formatted, and sent to each of the middle schools to aid in student scheduling.

Progress is being made toward electronic transfer of student records.

Registrars at the three regents universities have asked to receive student transcript information electronically. The new student accounting database was designed using the early standards for records transfer developed by the National Center for Education Statistics (SPEEDE/EXPRESS). Progress is being made toward this goal. Student information staff assisted the Department of Education and registrars of regents universities in planning a statewide conference on the electronic exchange of student records held in June, 1994.

In addition to kindergarten through twelfth grade students, student accounting is responsible for records of all children served in Des Moines preschools and Head Start. Immunization records of preschool children who receive their immunizations from health clinics sponsored by the Des Moines schools are also included. The goal is to make the database comprehensive for both public health reasons and planning purposes.

Technology

A district task force prepared a strategic long-range technology plan that was adopted by the Board of Directors on September 7, 1993. On December 14, 1993, the board: 1) granted authority to prepare a Request for Proposal(s), with appropriate consultation and input from MICC for implementing the total technology plan; and 2) limited expenditures to \$6,000,000 for implementation of Phase 1.

The technology plan is a guide for implementing technology throughout the district. This report is the culmination of the efforts of several groups that have studied district technology needs. It is based on the review of technology literature, the work of numerous district teams studying technology since 1990, and an extensive analysis of interviews and survey questions asked of approximately 310 district stakeholders during the spring of 1993. The document identifies technology-related concerns, provides recommendations and implementation strategies relative to ameliorating these concerns, and identifies the hardware, software, training, and personnel costs of implementing the plan. It is intended that this document be used as a strategic planning tool. Through strategic planning, district resources can be targeted to ensure equitable, effective, and efficient implementation of the technology plan.

The Technology Plan Implementation Team was restructured in December, 1993 with new task forces and new responsibilities for the task forces. Specific tasks must be accomplished and the implementation must be institutionalized.

Monitoring of implementation activities is carried out using a specific process developed and coordinated by the Evaluation and Reporting Task Force. Each task force developed a timeline of activities that included planned start and completion dates, costs, actual completion dates and persons responsible. Progress on activities is recorded on a data collection form that is returned to the Evaluation and Reporting Task Force monthly. Information from the data collection form is imported into a MacProject Pro software package, that can create flowcharts and other documents to show dependencies and relationships among activity tasks. The information is also useful in flagging potential problems as implementation progresses so they may be attended to in their early stages. This information is used to generate a progress report to the Board, submitted every four months. The first report to the Board was made on April 19, 1994.

The technology plan was adopted by the Board on September 7, 1993. In December, the board granted authority to prepare Request for Proposals for implementing the plan.

A district inventory of computers, printers, external hard drives, and other equipment is maintained in the department. Results of the inventory as of August 1, 1994, are discussed in the Context Evaluation section of this report. Detailed information can be obtained from the Department of Information Management.

The department is responsible for installing and maintaining telephone service to the district. There is a goal to install a telephone in each classroom by the end of 1995. Also, telephone service is provided to buildings through fiber optic cable where it is economically feasible. By April 1994, 30 elementary schools, six middle schools, and two high schools have telephones in each room and existing intercom systems have been replaced. In addition, one elementary school, two middle schools, the transportation and food service facility, and six high schools are served by fiber optic cable. Existing telephones have been replaced and additional telephone lines have been added at the schools that are connected by fiber optic cable. A complete list of schools that have new telephones and those remaining on the list is available in the Department of Information Management.

Buying and installing telephone equipment using district staff has proven to be an efficient and effective process. One objective of replacing rented equipment with purchased systems was to provide increased service for the same or less expense. While the number of telephones has increased annual expenditures, telephone service has improved, and the annual cost per telephone has decreased. The district's telephone system is providing a cost effective service that holds actual expenditures nearly constant and dramatically increases services to district staff. It is feasible, effective and efficient to put telephones in every classroom without greatly increasing expenditures.

The district's telephone system provides a cost-effective service that increases services to district staff.

FUTURE PLANNING

Future plans are based on identification of needs, the satisfaction of which will improve services provided by the department. Plans for the future are discussed in the paragraphs below. A prioritized list of major needs and estimated costs are found in Table 6 at the end of the discussion.

Several areas in program evaluation should receive increased emphasis. These include: (1) addressing how each area contributed to accomplishment of the district mission; (2) prioritizing needs including estimating costs of meeting needs; (3) addressing fiscal efficiencies, and (4) referring to program evaluation standards in preparing reports.

The 1994-95 District Improvement Plan is the first to include standards for attainment of goals at the district level. The Strategic Planning Committee should continue to work over the summer and into 1994-95 to develop a district vision that will encompass initiatives such as Vision 2005 and the technology plan.

It is critical that schools have equipment that functions when needed. Computers used at high schools are connected to newer scanners, but the computer systems have limited storage capacity and run at a much slower speed, making them unable to take full advantage of the faster scanners. Elementary school test scanners need to be replaced. Middle schools need new scanners and computers. Estimated costs for new computers at middle and high schools are approximately \$60,000. The estimate cost for new scanners at elementary and middle schools is approximately \$210,000. These costs are included in the district technology plan.

Program evaluations need to address the district mission, needs prioritization, and fiscal efficiencies.

A revised district assessment program was approved by the Board of Directors in 1991. There is a need to review progress to date and consider alternatives based on current district initiatives. A more comprehensive district-wide assessment system to support teaching and learning needs to be planned to focus on student achievement standards on district criterion-referenced tests, expansion of performance-based assessment, and a possible reduction in standardized testing. The plan should include: (1) review of current test development and administration procedures, (2) develop guidelines, standards and criteria for classroom-based performance assessments, and (3) support the comprehensive assessment system with technology. For example, student assessment could be conducted using electronic keypads to enter answer choices, test item-banks for teacher-made tests could be available on-line or through a request system, and samples of student performances on certain tasks could be stored electronically (e.g., audio, video, scanned images). Examination of software and hardware systems, and planning for implementation of major initiatives will have a budget impact of approximately \$4,000, and will be budgeted for Fiscal Year 1996.

A more comprehensive assessment system to support teaching and learning should be planned.

Under the current structure, the District Research Committee meets five times each school year to review submitted requests for research within the district. In total, the district's time commitment to the activities of the research committee is about 80 half-days per year (for all members). A recommendation to change the administrative procedures for reviewing research requests is being developed to conserve time and resources.

The district should address the method of long-term storage of permanent records. Currently, records that are kept permanently are microfilmed. The district is examining technology developments for an appropriate storage medium for less-active electronic records. It will be several years before it is necessary to choose the technology which will be used for the permanent storage of the electronic records. In the meantime, many years of data will be available on disk.

The district has been preparing for the electronic transfer of student records for several years. A number of forces are now coming together which should help make this possible: (1) the district is accumulating longitudinal student data; (2) the regents universities are requesting student information in the SPEEDE/EXPRESS format; (3) the use of the Internet is rapidly expanding; and (4) the ICN is nearing completion.

Plans are being made for electronic transfer of high school records by 1996-97.

Paper records of our students are being phased out. During 1993-94 kindergarten students did not have a paper permanent record. During 1994-95, neither kindergartners nor first graders will have paper permanent records. In the fall of 1995, students in the district three years will have electronic records and a paper record of their elementary work. During 1996-97, we will be able to transfer all high school records electronically.

The staff in Student Information is studying outsourcing the microfilming of student records. It seems more cost-effective than to maintain a camera, hire someone to use it, and pay for film and developing. Outsourcing would make it possible to practice better records management techniques by filming the paper as soon as it is complete rather than waiting for several years as is the current practice. Filming records of recent graduates and removing the responsibility of furnishing copies of transcripts from the building registrars would free time and space for the registrars to address the problems that will need to be solved as procedures change. Having all the current paper graduate records microfilmed in Student Information would increase the workload in that area so that an additional person might be needed.

The technology plan should be revised to reflect: (1) activities actually scheduled for the 1994-95 school year; (2) additions, modifications, or deletions to the list of activities (e.g. remodeling and enhancement of television studio at Central Campus or upgrading the telephone switch); and (3) results of the Request for Proposal for administrative systems.

During the fall of 1994, a budget should be prepared to reflect phase II of the technology plan. First priority should be given to the administrative system, and second priority should be given to adding additional teacher workstations.

A recommendation will be presented to the board by May, 1995 for an administrative system. The system should be installed and operational in eight schools, MiCC, and the central administration by November, 1995. For Fiscal Year 1995, \$150,000 has been allocated for implementation of the administrative system. The technology plan outlines the dollars needed for the remaining portion of the administrative system and as funds become available, the activity will be completed. Telephones should be installed in the balance of classrooms by December 1995 at a cost of approximately \$400,000.

The number of telephones in the district has continued to grow, with over 900 telephones installed since 1992. This will result in the necessity of replacing the district telephone switch, located at 1800 Grand, with a larger unit during the next 12 to 18 months. The economies of using the fiber optic system continue, with more data being exchanged between the buildings. The use of fiber optics permits high speed data exchange at no additional monthly cost.

Use of fiber optics permits high speed data exchange at no additional monthly cost.

Table 6 provides a summary of major needs, sources of funding and projected costs. These are listed in priority order with "1" indicating highest priority.

Table 6
Summary of Needs and Associated Costs

<u>ITEM</u>	<u>SOURCE</u>	<u>PROJECTED COST</u>	<u>PRIORITY</u>
Scanner/computers replacement	Tech Plan	\$210,000	1
Telephone switch replacement	Plant & Equipment Levy	\$400,000	1
Assessment Systems Software	FY 96 Budget	\$4,000	2
Outsourcing microfilming of student records	FY 96 Budget	\$4,000 initial \$800 annual (3 years) <i>Savings</i> \$1,600/yr. on camera maintenance	2
Examine long term storage options of student records	FY 96 Budget	\$1,000	2
District Research Comm. (reduction in meeting time)	T & L Cabinet	<i>Savings</i> (30 1/2 days subs)	3
Service changes for electronic records transfer	FY 96 Budget	Not available	3