ABSTRACT
        The Audiovisual Tutorial Program adopted by the
Milwaukee Area Technical College utilized a systems approach for
learning the basics of a variety of subjects. The program scheduled
three categories of student experience: 1) independent study sessions
in the audiovisual tutorial learning center; 2) general assembly
session; and 3) small assembly session. The learning system used
films and audio tape recorded programs as the basis of the program.
Courses in biology, botany, business, nursing, machine shop, and
speech were taught by the program. The report evaluates subjectively
the success of the program. (MC)
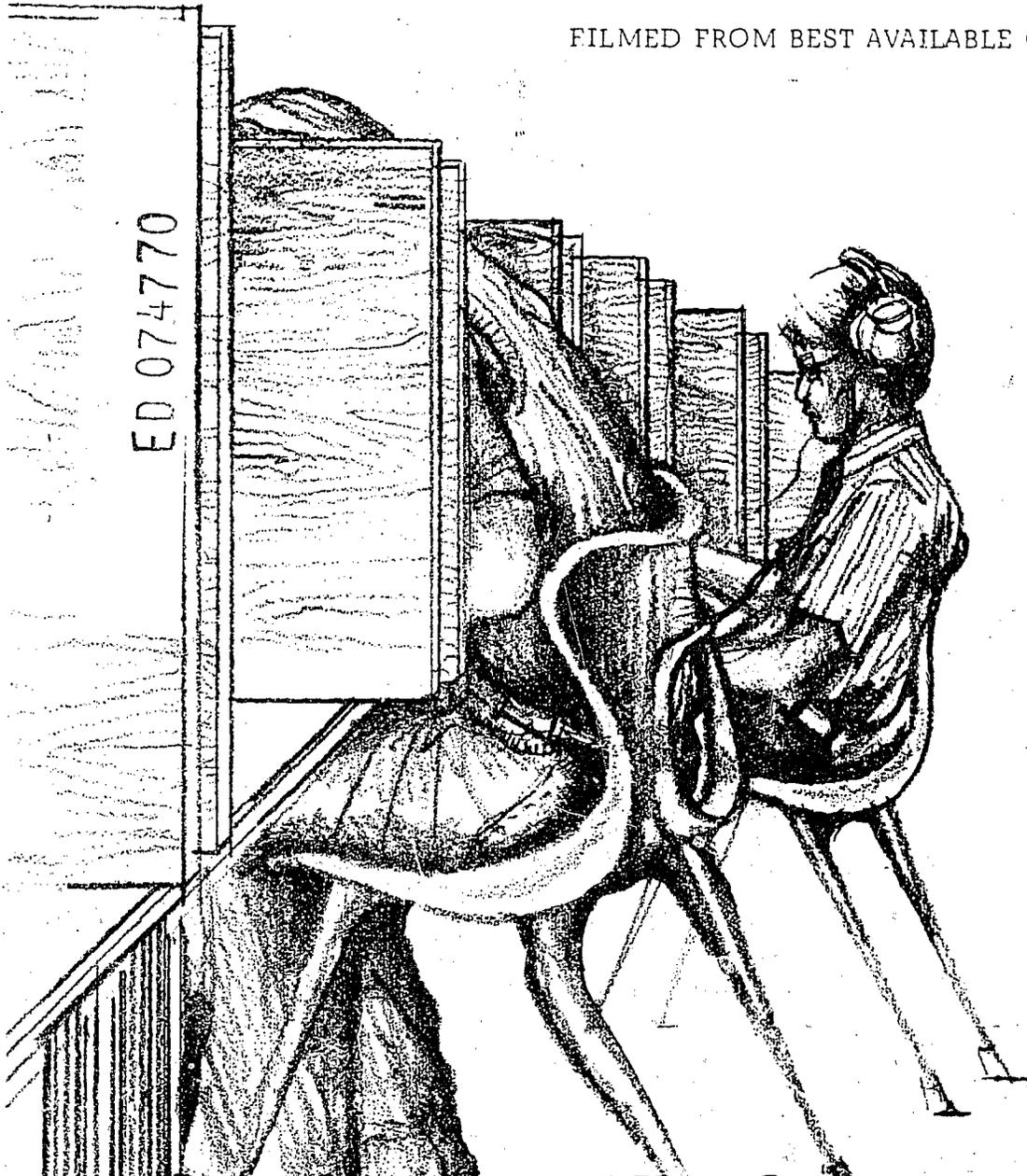
AUDIO VISUAL
TUTORIAL DEVELOPMENT
at the milwaukee area technical college

matc

DISTRICT OFFICE OF INSTRUCTION

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Instructional Resource Coordinator—Media
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OBJECTIVES

An essential element in the application of audio visual tutorial technology to learning is the specification of learning outcomes. The student engaging in any learning activity should know precisely what he is expected to do at the end of the activity and the criteria for success. Therefore, since this paper is a learning activity, you should expect to achieve the following objectives:

1. To trace the background of technological improvements with the electronic media and systems approach.

2. To identify implications of technology on the future operation of MATC.

3. To describe student activities associated with the audio visual tutorial approach.

4. To describe the goals for developing the audio visual tutorial approach at MATC.

5. To contrast the role of the instructor and paraprofessional in a developed audio visual tutorial system with that of a traditional lecture-laboratory system.

6. To identify the six developing course areas at MATC and briefly describe the current operation of each.

7. To outline a plan for the instructor to initiate the audio visual tutorial approach in his own courses.

I. Background of Instructional Improvement with Technology

Instruction since the time of Socrates has consisted of one teacher - one student in a tutorial situation or one teacher and several students in a lecture and/or discussion approach. Little has changed in the teaching style even though information known to man has accumulated in vast proportions (information currently doubles every four years). When Gutenberg invented the printing press in the 15th century, scholarly works became available to masses of people outside of the scholarly circles. A major change in teaching resulted when teachers relied upon the printed material as the primary information source to support the lecture/discussion approach.

The advent of electronic and film media in recent years has enabled many teachers to expand the learning experiences beyond the traditional classroom environment. These added media "tools" have greatly improved the communication of information within the framework of the Socratic approach.

During this same "electronic" or technological era, man has learned how to "systemize" his operations to keep improving the quality and quantity of his product. The "Systems Approach" is being applied to education where student learning is the product of the system and efforts are expended to ensure that learning is occurring in accordance with specified objectives. The system is continually refined to improve learning.

In recent years, considerable growth has been experienced on a nation-wide basis in the use of audiovisual individualized instruction. The lead in the "audiotutorial" movement has been credited to Dr. S. N. Postlethwait, who began the system in 1961 at Purdue University. The Postlethwait approach has emphasized that "learning is an activity done by an individual, not something done to an individual."[1] To accommodate this learning involvement, a simulated one-to-one teacher (tape-recorded) tutoring of students in a laboratory setting has been used. The growth of the audiotutorial approach is attributed to the availability of low-cost, reliable recording and film devices with improvements in learning systems. The audiovisual devices serve as an essential part of the learning system, freeing the teacher of communicating repetitive information. The teacher is utilized more effectively by assisting individual students; preparing and revising materials; evaluating the learning system; and revising or improving the efficiency of the system. Educators have employed various terms to identify this system. These include: multimedia, audiotutorial, autoinstructional, autotutorial, and audio visual tutorial.

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[1]S. N. Postlethwait, J. Novak, and H. T. Murray Jr., The Audio-Tutorial Approach to Learning, 3rd ed., (Minneapolis, Minneʑ a: ⸱⸱gess Publishing Co., 1972). This book, which provides the complete descr⸱ʠdion of the audio tutorial approach, a sample unit, and facility design as conceived by S. N. Postlethwait, is available in the MATC library for consultation.

The improvement of instruction with audiovisual films at MATC began
in the late twenties and early thirties with a very active film production and
utilization program. In the late fifties, the college began broadcasting
educational television over two channels. In recent years, the emphasis
on technology has been in the development of learning centers utilizing
the audio visual tutorial approach, development of a TV college, and devel-
opment of computer applications to instruction. The effect of technology
on instruction will have far-reaching implications on the future operation of
the college in regard to curriculum development, facility utilization, the
roles of those associated with instruction, the types of services required,
and budget impact.[2] The following sections describe the audio visual
tutorial development at MATC. These sections include: 1) description of
the audio visual tutorial approach; 2) role of the instructor and parapro-
fessional in audio visual tutorial systems; 3) progress in the development
of courses applying the audio visual tutorial approach at MATC; and
4) guidelines for initiation of AVT systems at MATC.

II. Description of the Audio Visual Tutorial Approach

The Audio Visual Tutorial approach adopted by MATC is an attempt to
apply the "systems approach" to courses utilizing all communication media
as an integral part of the learning system. A course utilizing this approach
has three major categories of student experiences scheduled. These are
(1) Independent Study Sessions in the Audio Visual Tutorial Learning
Center, (2) General Assembly Session, and (3) Small Assembly Session. The
structure of a course to schedule students in the Audio Visual Tutorial
Learning Center, General Assembly Session and Small Assembly Session
varies according to each course's special requirements.

Audio Visual Tutorial Learning Center (Independent Study Sessions)

The Audio Visual Tutorial Learning Center is the heart of the system
where the student is free to come in when he is ready to learn for as long
as is required. The free access to learning is referred to as an Independent
Study Session (ISS). The Learning Center provides individualized units to
study and perform activities until the concept or skill has been mastered.
Each student study area, referred to as a carrel, is equipped with a tape
recorder/player. The taped lesson is the directive teacher that allows
the student to start, stop, and repeat segments of the lesson at his own rate.

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[2]The future of technology at MATC and in the nation is best illustrated
in a report and recommendations by the Carnegie Commission on Higher Educa-
tion published in June 1972, entitled "The Fourth Revolution: Instructional
Technology in Higher Education." This report emphasizes the potential that
technology may have for higher education and the steps that should be taken
"to assure that the benefits of instructional technology will be realized
in an orderly and reasonably prompt manner." The report is available at the
MATC library and should be consulted to gain the proper perspective of the
impact of technology on the future of education.

This simulated teacher directs the student through a series of structured activities in the carrel. These may include directions, such as: turn to page 23 of . . ., look at slide no. 6, examine specimen 3 with the microscope, stop the tape and tie the knot as shown, complete worksheet item . . . etc. The tape may also include basic information and direct the student to activities at separate learning stations too large or expensive to be located in a carrel. Emphasis is not on listening to tape-recorded lectures but involvement in activity-oriented learning experiences. If problems arise, a paraprofessional or instructor is available to assist the student individually. As the materials and learning system become developed, the frequency of problems requiring the attention of the instructor becomes less, the instructor can devote more of his time to professional matters, and the paraprofessional can take care of routine operations of the Learning Center.

General Assembly Session

The general assembly session (GAS) is usually scheduled for one hour at the beginning of a unit for student motivation. Typical activities include giving announcements, showing long films, providing guest or special lectures, and administering long examinations.

Small Assembly Session

The small assembly session (SAS) is scheduled for one hour following the completion of the individual study unit in the Learning Center. This is a small group session where approximately fifteen students are required to apply the skill and concepts gained in the Learning Center. This session places the instructor in a more direct role of dealing with individual student learning problems. The student must perform written, oral, and/or manipulative task to demonstrate successful applications of the knowledge. Learning deficiencies are detected and dealt with in this session. Serious problems require additional Learning Center remedial work, individual conferences, and successful re-test before continuation with the course. The student is responsible for maintaining at least the minimum standards of the course on a unit-by-unit basis.

Goals of the Audio Visual Tutorial Approach

The main thrust at MATC is to improve efficiency and quality of instruction by striving toward the following goals:

1. To free the instructor of lectures and repetitive instruction by shifting this task to technological devices in an environment capable of the student controlling his own rate of learning. The ideal approach is one where the student has open entry, open exit, and self-paced learning.

2. To free the instructor of clerical tasks in operating a Learning Center. This is accomplished by assigning a paraprofessional or a technician responsible for the operational tasks in the Learning Center with the instructor remaining responsible as the manager of learning.

3. To apply the gains made in instructor contact time to improving instruction. The intent is to maintain at least the same instructional cost efficiency with gains in productivity applied to increasing instructor time for student diagnostic and prescription opportunities; individual student conferences; material development; and system management.

III. Role of the Instructor and Paraprofessional In Audio Visual Tutorial Systems

Role of the Instructor

The management of student learning is the instructor's responsibility, regardless of the teaching method. Therefore, it is essential that one instructor is responsible for the students assigned to a given course. Each student has one instructor who is responsible for his learning and grades even when other instructors are involved in the learning activities. Each student can expect his instructor to diagnose learning problems, provide motivation to learn, provide adequate opportunities to learn, prescribe learning activities, evaluate learning achievement, and provide remediation of learning problems.

The student in courses utilizing an Audio Visual Tutorial Learning Center must depend on the center as the primary source of learning activities. The student comes in on an open-ended basis to spend as much time as needed working with "learning packages" (tapes, slides, worksheets, etc.) to achieve objectives prescribed for course content and skill development. Since the audio visual tutorial approach shifts more responsibility of learning to the student, there is a greater need for careful management of student learning.

When a course has been developed, following the systems approach, and utilizes an Audio Visual Tutorial Learning Center with paraprofessionals, the instructor assumes a new role in the management of learning and its associated activities. The instructor's role in the rigid schedule of traditional instruction has been modified and replaced with a professional management of student learning; the Learning Center; and other learning activities on an "as needed" basis. Generally, the paraprofessional frees the instructor of routine matters in operating the Learning Center, and the instructor's time is devoted to professional matters in or out of the center. These professional matters may include preparation and revision of materials; student observation and conferences; improvement of system operations; supervision of paraprofessionals; and other management tasks.

In audio visual tutorial learning systems which require a large group assembly as an associated activity, the primary role of the instructor is to motivate students. The limit on the number of students is not important since all assignments, discussions, etc., required in traditional instruction are structured by other means within the audio visual tutorial system.

In audio visual tutorial learning systems which require small groups as an associated activity, the role of the instructor is to assess student performance in meeting unit objectives; and to prescribe remedial treatment of learning deficiencies.

The instructor's load in courses developing the Audio Visual Tutorial Learning Center Approach has followed traditional lecture-laboratory load formulas. During the course development period, the instructor is in the Learning Center to monitor student progress and to take care of routine operations. As the materials for the course and the system become refined, the frequency of learning problems will decline to some minimum level. When the course has been developed to the point of operating efficiently, then the new management role of the instructor and the use of paraprofessionals will be implemented. Obviously, implementing the managerial role of the instructor and use of paraprofessionals will require techniques of differentiated staffing to distribute work loads that will maintain economy of operation.[3]

Role of the Paraprofessional in Audio Visual Tutorial Learning Centers

The paraprofessional assumes responsibility for operating the Audio Visual Tutorial Learning Center under the direction of the instructor. The paraprofessional is an agent of the instructor, supervising the Learning Center in the presence or absence of the instructor. Typical duties include:

1. Opening the Learning Center
2. Checking and maintaining orderliness and cleanliness of the room
3. Maintaining adequate supplies and inventory
4. Checking equipment for proper function, performing preventive maintenance, filing malfunction reports, and arranging repairs of equipment
5. Checking students into carrels with appropriate material
6. Checking and maintaining demonstration and practice areas
7. Circulating in study area and maintaining library atmosphere
8. Assisting students with mechanics of carrels, exercises (tutoring), and work in demonstration areas
9. Arranging instructor conferences with students on questions and problems pertaining to course content
10. Administering and correcting self-tests and performance tests as directed by the instructor
11. Entering student data such as unit progress, time, etc., into student records
12. Entering other pertinent data into records including the maintenance of a daily log of activities specified by the instructor
13. Checking students out of the Learning Center
14. Supervising student assistants
15. Closing the Learning Center
16. Other duties as assigned

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[3]S. R. Wilson and D. T. Tosti, Learning is Getting Easier, (San Rafael, California: Individual Learning Systems). This book provides descriptions of personnel roles and "the changes teachers are making that permit them to adapt the instructional system ever more frequently and accurately to satisfy personal needs of each individual student." (Available in MATC Library)

IV. Progress in the Development of Courses Applying
the Audio Visual Tutorial Approach at MATC

There are numerous instructors developing and testing AVT learning
materials for their courses. The development ranges from a single unit of
instruction being tried in the library or laboratory, to entire courses
operating in course area Learning Centers. There are six course areas im-
plementing the AVT approach in various stages of development. The following
is the progress as reported by the instructors involved in the course.

BIOLOGY

The first audio visual tutorial program was initiated during the second
semester of 1969-1970 with four instructors assigned 25% of their load to work
as a team in planning and developing a system of instruction. At the end of
the summer session, approximately 75% of the materials were prepared in a
"first draft" status. In the fall semester, facility plans and remaining
materials were completed. Installation of equipment was completed in January
1971 for second-semester operation. A pilot group of 36 students were assigned
to try out the system and materials. The course has continued to be offered
each semester to all interested students, averaging about 90 per semester.
Each time the course was offered new refinements were made, improving the
operation.

The course, Biological Concepts, is offered for five credits and had been
taught in a traditional manner consisting of three hours of lecture and four
hours of laboratory per week. In the course, the student starts a new unit
(mini-course) each week by meeting the teacher in General Assembly Session
for one hour on Monday. The student enters the Biology Learning Center
during open hours for independent study, spending whatever time is necessary
(average time is four hours) to achieve the unit objectives. Then on Friday
the student meets his instructor for one hour in the Small Assembly Session
to determine whether he has successfully achieved the unit (mini-course)
objectives.

The AVT approach helps to overcome individual differences normally
experienced in the classroom. The student is not locked into the presentation,
allowing him to repeat the unit or a section of the unit as needed. Audio
tapes are used to give instructions and short informational segments, avoid-
ing lengthly lectures. Students are involved in some activity rather than
just listening to a lecture.

The student having difficulty in the Biology Learning Center may receive
assistance from either a faculty member or a paraprofessional. The faculty
member is available to tutor those students who need and seek additional
help. The paraprofessional is on duty to help the student with operational
problems such as burnt out microscope lights, locating energy demonstration
model, etc. The paraprofessional tutors within the spectrum of professional
competency, proctors tests, and keeps records. These duties and normal lab
routines are left to the paraprofessional to free the professional teacher
to practice his special skill, namely, teaching.

This year changes were made in the Small Assembly Session shifting the written quiz to one large group and retaining oral and performance quizzes in the small group. The future plans include preparation of additional units which will allow the students to pick and select within certain limits.

Larry Janquart
Biology Learning Center
Room C433

BOTANY

Some of the experience acquired in development of the audio visual tutorial biology course has been applied in converting a traditional botany course to an AVT course during the 1971-1972 school year.

The traditional botany course ran 16 weeks, each consisting of three hours of lecture and four hours of lab. Quizzes were scheduled during lectures and labs. By comparison, the AVT course also runs 16 weeks, each consisting of one hour of General Assembly Session, four hours of scheduled Independent Study Sessions, one hour of Small Assembly Session and optional open lab periods. The course utilizes a manual, unit quizzes, supplements, and audio tapes which were completed for preliminary testing in April 1972. Ten volunteer students in April switched from the traditional course to the AVT approach and one section of summer students completed the course via the AVT method. The empirical evidence from this trial period indicated a significant improvement in student achievement over the traditional approach. Further gathering and analyzing of data over the coming year should substantiate the learning gains.

The facility consists of a traditional laboratory with tape recorders available at each laboratory station; a classroom divided into a small assembly area, teacher station, paraprofessional station, and spaces for laboratory demonstrations; and a greenhouse. With some slight renovation, this facility can adequately serve up to 200 students per semester. The cost of developing this course required only the cost of the tape recorders, tapes, and publication of materials. There was no additional investment in facility renovation or faculty time required for implementation.

The plans for the immediate future include the conversion of a second botany course to operate out of the same facility. Beyond this, additional units are to be prepared to provide students with special tracks meeting individual needs. Examples of the special track units include application units in the baking, brewing, leather, yeast, and other botanical-related industries. In addition, students wishing to go beyond course requirements, could pick up units which are normally taken in advanced courses.

Robert Reich
Botany Learning Center
Room 760-762

BUSINESS

Faculty members of the Business Division provided a special program of tutorial assistance to individual students having difficulty in business courses. The need for technological assistance in reaching diverse learning problems became apparent, and early in 1972 a proposal was approved to establish an Open Lab for Disadvantaged Students. The purpose of the Lab was to have a specific room where students could go to receive individualized remedial instruction in typewriting, business machines, business mathematics, and accounting principles through audio, visual, and tutorial methods, in addition to the regular classroom instruction.

In the 1972-1973 school year, the Lab opened to the students in the Business Division for instructional help. The slow learner and/or disadvantaged student will have the following advantages in using the Lab: 1) he will not have to be concerned about the fear of asking questions before his peers; 2) he can take as much time as he needs to satisfactorily complete the work; 3) he can pace himself in the learning situation; 4) he has the help of audio and visual instruction that could be more meaningful to him than the printed word, which he does not understand too well because of a difficulty in reading and/or comprehension. The Open Lab concept, as developed for the Business Division, will provide the disadvantaged and/or slow learner with a learning situation that will fit his own needs. The combined methods of instruction through small units using audio, visual, and tutorial aids will give these students an effective learning package embodying instructional objectives, sequential instruction of small steps, practice, reinforcement, evaluation, and the interaction of student and instructor on a one-to-one basis.

Other students who do not fall in the categories of slow learners or disadvantaged can use the Lab for: 1) remedial work; 2) reinforcement; 3) classroom instruction missed because of an excused absence. The typewriters and business machines can be used by Business Division students and others on an availability basis.

In the second semester of 1971-1972 special assignment time was scheduled for two instructors to set up the Lab; purchase all necessary equipment, materials, and supplies; and prepare materials for those areas in accounting principles and business mathematics where commercially prepared materials were not available. Most of the materials available to students were obtained from outside sources.

Because of the nature of the Lab, complete records will be maintained regarding the use of all instructional materials and the time spent in the Lab by the students. This information will be invaluable in evaluating the Lab and instructional materials offered therein. If the system is successful, the future may evolve a Learning Center offering complete courses in addition to supportive remedial treatment.

Mildred Polisky
Earl Reistad
Business Open Lab
Room 300

MACHINE SHOP AND TOOL AND DIE

The numerical control lab in 19   television to improve
the student's view of intricate mac   ions. In 1970 video
tapes were prepared on an experimen   tutor students through
basic machine shop operations. The success of this audio visual tutorial
approach led to a proposed and approved plan to further develop the system.

In the typical shop prior to AVT, the machine shop instructors would
teach approximately 8-12 courses in machine shop (Engine Lathe 1, 2, 3, 4;
Turret Lathe 1, 2, 3, 4, etc.) simultaneously each semester to a wide range of
students. Although the majority of the courses are for a specific number
of hours (108 hours average), there are special conditions attached. If
for some reason the student completes a course in less time than is required,
he may go on to the next course, allowing him to work at his own pace. Also
if the student is a slow learner, or has some physical or language problem, he
may be given an additional fifty percent more time to complete the course.
Another condition the instructional process must absorb is that along with
full-time students who attend shop classes approximately 24 hours a week,
there are part-time students who attend school at times that best suit their
personal schedules. Both full- and part-time students frequently start
school at any time within the school year. With the conglomerate of full- and
part-time students, different student work paces and abilities, varying en-
rollment dates, and the offering of eight courses simultaneously, the instructor
is forced into a one student, one instructor teaching situation. Since there
is considerable demand on the instructor, students may have to wait their turn
for individualized instruction. This places a burden on the student who re-
quires immediate attention and constant encouragement.

The plan to improve the courses proposed to develop a systems approach
utilizing television recordings and shop process manuals to improve instruc-
tion on the various metal-cutting tools. This systems approach permits the
student to work independently, thus freeing the instructor from repetitive
instructional tasks. The instructor will utilize the time saved to work
with more students and will be able to closely manage the learning process.

The materials for the system were partially developed in the second
semester of 1971-1972 by two instructors on a full-time basis and three
instructors part time during the summer. In the first semester of 1972
the materials and system are operating on a partial-trial basis. The
future plans are to continue material development, refinement of operation,
and ultimately an open Machine Shop Learning Center.

W. Adomat
D. Marlow
J. Miller
W. Slezewski
Machine Shop and Tool and Die
Room T110

NURSING

The nursing program instituted the Audio Visual Tutorial approach when funds from the Vocational Education Act were released in May of 1970. A consultant from the nursing faculty of Delta College conducted a one-week workshop in the summer of 1970 to assist the MATC nursing faculty in the preparation of tapes, worksheets, and skill items to support films produced by Delta College. In January 1971 it was decided to implement a commercial program published by John Wiley and Sons, developed at Brownard Community College in Fort Lauderdale, Florida. The authors were sponsored by Mount Sinai Hospital to conduct a two-day workshop to orientate the faculty to the program in June 1971.

The first nursing course planned was Fundamentals of Nursing, which is offered for 5 credits and has been taught traditionally with 3 hours of lecture and 6 hours of clinical laboratory experiences. The new approach requires course content and skills to be developed in the Audio Visual Tutorial Learning Center only. Traditional lectures and methods of content communications have been abandoned. The General Assembly Sessions (GAS) are held once a week for motivation, explanation, and examinations. The Small Assembly Session (SAS), held once a week, is where the student demonstrates his knowledge of the week's objectives and the teacher deals with individual learning problems of her assigned students. The Clinical Lab Session (CLS) is the hospital environment where the student puts to practice concepts gained in school. The students are guided in each lesson by the John Wiley and Sons publications LEGS - Learning Experiences Guides for Nursing Students. These lessons have been modified and supplemented to develop nursing skills characteristic of Wisconsin and Milwaukee. Each lesson has 8 sets of materials for student checkout. This requires students to work on one of several lessons required for the given week--a system of material rotation permits having less than 24 complete sets of materials.

A teacher was assigned the second semester of 1970-1971 on a full-time basis to develop materials and to plan facilities, and the learning system, for implementation the fall semester of 1971-1972. The following is a tentative summary of improvements developed during the first year of operation, 1971-1972.

1. Provide individualized, simulated patient practice in each skill area prior to actual hospital clinical experience.

2. Provide an open Learning Center convenient to the student. The student works as needed until success is demonstrated in the skill area up to a set date for accomplishment. Thirty-three skills have been identified in which mastery is required for successful course completion. The Learning Center is to be manned with paraprofessionals where the teacher is manager and available to the students as needed.

3. Increase the number of students trained without increase in teacher staff.

The AVT Learning Center will provide an integral learning experience for all first-year students and have space to provide supplemental experiences to all second-year students.

Carol Miller
Nursing Learning Center
Room 412

_ECH

The MATC Speech Learning Center was originally to have been operational in the Fall Semester of 1971. However, space had yet to be acquired at that time, and it was also necessary for additional activity in the development and the acquisition of software materials. In addition, there was a need for refinement of operational plans.

The school year 1971-1972 was devoted to the preparing and previewing of software, and to planning for the integration of the resources into the MATC Speech Curriculum. Four instructors were involved part time in these activities during the regular 1971-1972 school year; two instructors were utilized full time during the summer of 1972. Also, the summer months saw the actual physical emergence of the Learning Center as former classrooms were converted into the new facility.

Plans for a pilot program utilizing the Learning Center have been completed. However, they cannot be realized at this point due to a delayed installation of certain hardware. Also, a temporary spending freeze has halted purchasing activity involving certain desired software and its reproduction for study-carrel use. Hopefully the Learning Center will become truly operational during the Fall, 1972, semester.

The pilot program envisioned (1972-1973) calls for the use of the Speech Learning Center by Crossover classes in beginning speech (Elements of Speech - 101). "Crossover" classes are composed of students with poor prior academic records. Meeting three times weekly, these classes will spend approximately one-third of each week in the Learning Center's carrels, or will work (each learner individually) on specific speech problems and assignments in Learning Centers equipped with closed-circuit TV cameras and VTR. Specific carrels will also be available for a student's use "on his own time." Class members will thus have the benefit of a substantial library of software resources, and will be able to practice and refine their speech-communication skills in the privacy of a recording studio - with the presence of an instructor on the Learning Center premises if needed. Prior to this, speech classes have largely consisted of lectures, oral assignments, and evaluative activity, with the occasional incorporation of a film. Also, there may have been periodic closed-circuit televising of students' performances with VTR playback - publicly in the classroom - with accompanying stress and insecurity often serving to impede the learning process.

As the Learning Center becomes functional during the Fall, 1972, semester, the immediate goal is to phase in its facilities and resources with current Crossover classes in speech - presently being conducted conventionally in Learning Center classrooms. The Spring, 1973, semester should see the pilot program, as envisioned above, in full function. It is hoped that the summer of 1973 can be devoted to a careful, detailed evaluation of the pilot program, followed by restructuring where necessary. Fall, 1973, should see : MATC Speech Learning Center incorporated into all beginning spe   t just Crossover classes. The following year, or possibly ea...ici, it is anticipated that this Learning Center will be a vital part of most speech and communication skills courses offered at MATC.

> E. Frankiewicz
> W. C. Rosenberg
> Speech Learning Center
> Room 310

V. Guidelines for Initiation of AVT Systems at MATC

The Audio Visual Tutorial approach is applicable to most courses and can be initiated by any individual instructor. The instructor works individually or cooperatively with the District Office of Instruction in developing an experimental unit. A collection of AVT reference and sample materials; Learning Resources Center for unit tryout; services for unit preparation and unit evaluation; professional seminars; and individual assistance are available to aid the instructor in a successful application of this approach. The instructor wishing to develop the AVT approach must work with the dean and secure approval on the scope of development, including financial support.

The materials required for the AVT approach are to be obtained from outside sources, if available, and/or prepared in cooperation with the District Office of Instruction and the production agents--Visual Communications Center, Typing, Bindery, Printshop, Computer Center, and Television Station.

When the instructor has demonstrated successful application of the systems concept on a unit of instruction and has all his associate department members and dean in support of the concept, a plan for total course implementation is developed. The District Office of Instruction will work as a team, providing its total expertise as needed to assist the instructional department in creating a workable plan. District priorities for budgeting are stated after an evaluation is made of each proposed course plan. The projects that are funded will receive total service support through complete course implementation. Projects that are deferred are provided with whatever assistance is available within the financial limitations of day-to-day operation.