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Interamericana de Bibliotecarios y Documentalistas Agrícolas

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- SECRETARIA GENERAL
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**OFFERING SUCCESSFUL SELF-INSTRUCTIONAL
SERVICES IN THE LIBRARY**

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INFOBILA

5a. REUNION INTERAMERICANA DE BIBLIOTECARIOS Y DOCUMENTALISTAS
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This paper discusses the development of self-instructional facilities in the Agriculture Library at the University of Illinois. The present operation, 14 carrels equipped with cassette tape players, rear-screen film-loop projectors and small microfiche readers, is the result of an evolutionary process begun in 1965 with the construction of 2 model carrels. Construction details are included and improvements and equipment updating are cited. The Agriculture Library was selected as the site of the self-instructional facilities because of its extended schedule and general accessibility, plus the packaged programs were easily adapted to the Library's established Reserve circulation system. Currently, the College of Agriculture has produced 88 self-instructional programs in the fields of agricultural engineering, agronomy, animal science, forestry, horticulture, and international agriculture. Students are able to use these programs for individual study any time the Agriculture Library is open and faculty members benefit from the efficiency of a one-time preparation of the tape, fiche and film programs.

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OFFERING SUCCESSFUL SELF-INSTRUCTIONAL
SERVICES IN THE LIBRARY

Self-instructional facilities are one of the services offered to patrons of the Agriculture Library at the University of Illinois. Software programs, including locally produced cassette tapes, fiche and film loops, are used in Auto-Tutorial carrels equipped with tape players, small microfiche readers and rear-screen film-loop projectors. During the past 12 years these facilities have proven useful to both the students and the faculty of the College of Agriculture. The students are able to use the materials for self-paced individual study during any of the 82 hours per week that the Agriculture Library is open. Faculty members benefit from the efficiency of a one-time preparation of programs to be used by a large number of students for several semesters. Updating the programmed material is a relatively easy procedure.

The Instructional Resources Section of the College of Agriculture produces the programs and maintains both the hardware and the software in working order. The Agriculture Library was selected to house the Auto-Tutorial carrels because of the Library's general accessibility and long hours, and the packaged self-instructional programs (referred to as Auto-Tutorial Units, or simply A/T Units) were easily adapted to the Library's established Reserve circulation system.

The audio part of these A/T Units, on cassette tapes, is usually the voice of the course instructor; the colored fiche are produced from 35mm slides taken especially for the program during production; and the film loops--if motion is necessary--are packaged in Technicolor continuous-loop Super-8 silent cartridges. Instructions concerning the use of the programs are at the beginning of each tape. Generally, there is a "beep" on the tape

when the fiche is to be advanced to the next frame, and instructions to insert the film loops are given at the proper time in those A/T Units including motion.

During the Spring 1965 semester, when multi-media services were first formally proposed in the College of Agriculture, two model Auto-Tutorial carrels were constructed and put into operation in the Agriculture Library. These carrels, constructed side-by-side, were designed to fit on a 245cm X 90cm table. Each 3-sided wooden carrel was 120cm long and 45cm deep with walls 60cm high. Adjoining this space to the rear was an enclosed area, of the same height and length, 30cm deep designed to house various pieces of equipment plus the necessary electrical wiring.

By the end of the Spring 1965 semester, student response to these self-instructional facilities was extremely positive and faculty members were convinced such tools could substantially assist instruction. Thus, during fiscal 1966/67, four additional Auto-Tutorial carrels, based on the original models, were constructed and put into service in the Agriculture Library.

These four carrels were designed to fit on a reading table 244cm X 122cm, two carrels per side, each carrel retaining the original dimensions of 120cm X 45cm. The enclosed area--now the common area between the 2 sets of side-by-side carrels--was again 30cm deep. This enclosed area was soundproofed and the top hinged for easy access to the wiring and equipment housed inside for necessary maintenance or replacement.

At the time of construction these compact carrels each contained: a reel-to-reel tape player with controls mounted in the lower right-hand corner of the rear wall; a film-loop projector for Super-8 cartridges attached to a base designed to swing out behind a 36cm X 20cm door in the upper left-hand corner of the rear wall; and rear-screen projection facilities located in the middle of the upper portion of the rear wall. The tape players, film-loop projectors and the rear-screen apparatus were all housed within the enclosed central core behind the carrels, yet all controls were located within easy reach of the seated patron. Soundproofing this

enclosed area effectively controlled any noise problem created in the Library by the operating equipment. Free-standing slide viewers--29cm X 35cm and 37cm tall--using 35mm colored slides in trays were installed in each carrel to the left of the seated patron, leaving the right-hand side of the carrel clear for notebooks, etc.

Plastic boxes 24cm X 34cm X 6cm, with hinged tops, were purchased to store the tapes, slides and film loops used in these first Auto-Tutorial Units. Styrofoam blocks were cut to fit into these boxes with specific spaces to accommodate the appropriate combination of software used in each program.

A key-operated power switch was also installed in each carrel and a key is charged out with each A/T Unit. Since the key can only be removed when the switch is in the Off position, the return of the key to the circulation desk with the A/T Unit assures the Library staff that no carrel is left idle with the power on and the equipment running.

Increasing demand by faculty members to produce additional A/T Units and increasing usage of the Units by students resulted in eight additional carrels being built in 1968, bringing the total number of Auto-Tutorial carrels in the Agriculture Library to the present 14. At the same time, cassette tape players were installed in all 14 carrels, replacing the reel-to-reel players, and cassette tapes were added to the system.

Due to the constantly increasing usage of the Auto-Tutorial facilities, by 1974 it became evident that replacement of some equipment would be necessary, although the hardware had been well maintained. As a result, new cassette tape players and headphones were again installed in all of the carrels during the summer of 1975.

Equipment replacement also provided an excellent opportunity to investigate the possibility of using microfiche in the system. Several advantages of fiche were immediately obvious: fiche would be easier to handle than the trays of slides (for both the patrons and the Library staff); elimination of the slides and their trays would make possible more compact shelf storage of the packaged A/T Units;

and the fiche readers would be quieter to operate in the Library than the 35mm slide projectors.

After considerable experimentation, Kodak developed a satisfactory colored microfiche with 77 usable frames of 20X reduction. In addition to a clear image, correct color is essential to many of the programs (e.g. those in agronomy concerned with soils and plant identification and in animal science dealing with meats and meat judging). The microfiche reader installed in each carrel during 1975 is small enough to fit in the space formerly occupied by the slide viewer. These self-contained fiche readers function by projecting the image directly onto a recessed rear-projection screen.

As each program is converted to the fiche format, the software is repackaged for more compact shelf storage. The new packages are plastic-covered hardbacked notebooks. Each notebook contains a combination of pockets to hold the appropriate tapes, fiche and/or film loops used in each particular A/T Unit. Thus, programs using a combination of tape and fiche are packaged in 26cm X 29cm notebooks only 2cm thick. This compact storage occupies approximately 1/3 the shelf space formerly necessary per A/T Unit when the plastic boxes were used. Programs that include film loops are packaged in notebooks 4cm thick, occupying less than 2/3 the shelf space formerly necessary per A/T Unit. Overall, we were able to reduce the A/T Unit storage space in the Reserve area of the Library from a minimum of 16 shelves to no more than 10 shelves.

To date there are 88 unique programs available covering subjects in the fields of agricultural engineering, agronomy, animal science, forestry, horticulture, and international agriculture. A sampling of the titles gives an indication of the range and type of agricultural subject material adaptable to a self-instructional format: agricultural engineering has several programs (Reading the Surveyors Rod, Keeping Good Surveyors Notes, The Transit and Its Use) designed to be used by students before they do actual field work;

agronomy has several programs on material identification (Crop Seed Identification, Weeds and Weed Seed Identification) as well as programs on crop, hay, silage and soil judging; animal science programs include Artificial Insemination, Identification of Lamb Cuts, and Beef Fabrication (this last program uses 2 fiche and 6 film loops to illustrate modern methods of fabricating a beef carcass into wholesale and retail cuts); forestry programs treat such matters as Measuring Tree Diameter and Basal Area, Sampling Systems and Data Analysis, and Vegetation of North America; international agriculture includes programs about general agriculture in Afghanistan, Russia and the United Kingdom.

New programs are currently being produced in plant pathology, and others revised and expanded in the fields of forestry, horticulture, and international agriculture. Also, I plan to use the resource to provide a general orientation guide to the Agriculture Library and in the future to add programs covering use of the card catalog, general bibliographies, indices and abstracting tools. An average of 5 or 6 new programs are added to the system annually, resulting in a continuous increase in total usage each academic year. During the Fall 1976 and Spring 1977 semesters, the 75 unique programs available in the Library were used a total of 3761 times.

To summarize, the self-instructional facilities in the Agriculture Library at the University of Illinois have proven beneficial to the students and staff of the College of Agriculture. The students have the advantage of being able to use the materials at their most efficient pace, repeating as necessary, any time the Agriculture Library is open. The Agriculture faculty has the opportunity to attractively re-state and reinforce material presented in the classroom and laboratory, or to present additional information not specifically covered in either the classroom nor the laboratory.

The self-instructional programs produced by the College of Agriculture at the University of Illinois are available for sale;

prices vary depending on the combination of tapes, fiche (or slides) and/or film loops used in each program. For more information concerning either the programs or the equipment used in the carrels write: Instructional Resources, College of Agriculture, 64 Mumford Hall, University of Illinois, Urbana, Illinois 61801.