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Introduction

The facilities and equipment of the proposed Information Resources Center to be built on the Darmaga campus of the Institut Pertanian Bogor represent an important resource that will help that institution more fully carry out its responsibilities for teaching, research and extension to improve the lives of people in rural Indonesia.

The center will provide an expanded library to serve the needs of IPB faculty and students and also a Communication Service Center that will provide communication support services for IPB administrators and teaching, research and extension programs. It will also serve as "home-base" for the proposed education program to prepare communications professionals for important tasks in the development of rural Indonesia.

The authors of the report spent December 1981 at the Institut Pertanian Bogor working with a team of IPB faculty to develop a proposal for an education program in rural communication at the institution. In that proposal, "An Education Program to Prepare Professional Rural Communicators in Indonesia," the team recommended establishing two rural-communication education programs at IPB--one at the diploma (S₀) level and one at the magister (S₂) level.

This report covers activities connected with the Institut Pertanian Bogor/ University of Wisconsin Graduate Education Project and is presented in three separate, but related parts.

Part I, "Planning to Meet Communication Support Needs of Institut Pertanian Bogor," stresses the need to develop a communication-support plan,

including a staffing and staff-development plan, as plans for the structure itself and the facilities and the equipment it will house are being developed.

The first section also suggests a plan for beginning to provide print and duplicating support services for IPB staff and programs immediately utilizing existing equipment and staff. Such an approach will provide experience in organizing communication-support services, familiarize faculty with use of such services, and help assure that there will be an ongoing program, with experienced staff, ready to efficiently utilize at least some portions of the Communication Service Center when it is completed.

Part II of this report, "Equipment Needs for the Rural Communication Teaching Program Beyond That Identified for the Information Resources Center," looks specifically at facilities and equipment within the center that will be needed to implement the proposed education programs in rural communication at IPB. A basic philosophy of both of those programs is that students need "hands on" experience with state-of-the-art communication equipment and facilities to be effectively prepared for the roles they will fulfill as professional communicators in the future. Some facilities in the Information Resource Center can provide many of the necessary opportunities; other course work will require laboratory space and equipment that is separate from that used by professionals.

The third section of the report, "Some Ideas About Use of Space in the Information Resources Center for Rural Communication Teaching Activities," looks at space needs for the teaching program and ways those needs can be met in the new building.

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Planning to Meet Communication Support Needs
of
Institut Pertanian Bogor

The proposed Communication Service Center within the Information Resources Center of the Institut Pertanian Bogor represents an important and substantial commitment toward providing necessary communication support services for IPB administration and teaching, research and extension programs.

Plans for the building have been developed and basic equipment needs have been identified. However, there remains a need for a carefully developed communication support plan, including a staffing and staff-development plan, to most effectively utilize the resources of that center.

The facility and equipment plans for the Communication Service Center appear to have been built on some basic assumptions. These include:

--Textbooks and reference materials on agriculture and related subject matter published in Bahasa Indonesia are costly and are not always readily available. In many cases, IPB faculty must develop their own materials for student and classroom use.

--IPB teaching faculty also have need for audio-visual materials-- slides, overheads, audio and video tapes, wall charts, posters, models, etc.--to support their lecture and laboratory presentations.

--Staff in the LPPM and other IPB outreach programs similarly have needs for both printed and audio-visual teaching and training materials; that have been specially prepared for middle- and village-level workers and for village audiences.

--IPB faculty need facilities to prepare research results for dissemination to other scientists and in less technical forms to decision makers, educators, extension workers and other change agents

--Mass media, especially rural newspapers and radio, provide ready channels to reach rural audiences. IPB faculty need facilities and trained staff to help them prepare materials for dissemination through these channels.

--IPB administrators need communication support services to develop and maintain internal communication among staff at all levels and to communicate about IPB programs and opportunities to external audiences.

--The proposed new education programs in Rural Communication are designed to be closely integrated with IPB communication programs and will draw upon Communication Service Center facilities, equipment and, possibly, staff for the education of professional rural communicators of the future.

Those basic assumptions clearly point to the need for a Communication Service Center for IPB. And they form the base upon which the necessary next step can be taken: development of a comprehensive communication-support program that will fully and effectively utilize the resources of the center to the benefit of all IPB programs. In some situations, it would be best to reserve final decisions on specific equipment purchases until that plan has been developed and precise communication-support needs have been determined.

Such a communication-support program plan should begin with an assessment of the needs of IPB faculty and programs in terms of audiences to be reached, the nature and types of messages to be communicated and the most effective channels for reaching specific audiences (including students in classroom and laboratory settings). Once the demand for support services

has been assessed and the volume of materials to be produced projected more precise staffing and equipment needs can be determined.

Decisions on which communication support services will be provided within the Communication Service Center and which will be contracted with outside commercial firms also need to be made. These, again, will need to be based on a well-conceived communication-support plan that makes it possible to determine the relative costs of in-house vs. outside production.

The plan should also include priorities for implementing specific communication-support services and plans for expanding the services as needs and support staff expertise increase.

Planning should begin immediately, as soon as the individual who will provide leadership for the center is ready to begin. He/she should have the advice and guidance of representatives of all IPB programs and his/her training program should be designed to provide experience in assessing communication-support needs and in planning and developing programs to meet those needs.

Whenever possible, communication-support efforts should begin immediately and not wait for the completion of the Information Resources Center. This approach would assure that there would be ongoing programs to effectively utilize the resources of the center and that there would be a nucleus of staff with training and experience when that facility is completed. Also, the experience gained through implementing a basic communication-support program could provide useful guidance for making final staffing and equipment recommendations for the IRC.

It is recommended that IPB begin at once to establish an operational print/duplicating support service unit that will meet the needs of IPB for print communication support services until the Communication Services Center is completed. Establishing this unit would also provide experience in

communication-support planning and production and develop a base upon which other communication support services can be built.

The print/duplicating support unit can begin immediately by making use of equipment and staff already present in the "print shop" coordinated by Ms. Diana Loebis. Some additional equipment and staff, especially graphic-art and editorial staff, will be needed for this beginning effort. It is equipment that can be used in the IRC. And the staff will be gaining experience through outside specialized training, when needed, and continuing on-the-job training so they will be prepared to assume expanded communication-support roles when the IRC begins operations.

A Plan for Beginning Print/Duplicating Support Services Immediately

This suggested plan for implementing print and duplicating services to support programs and activities of IPB administrators and faculty is based upon certain assumptions. These include assumptions on the nature of support services needed at present and those that may logically be expected in the near future. They include the following:

1. Print/duplicating support services for IPB administration:
 - a. Staff announcements, memoranda, reports, policy statements, staff directories, faculty-staff newsletters, other printed materials prepared by administrators for internal distribution;
 - b. promotional and public relations materials--course/curricula/program announcements, brochures, posters, campus guides, etc;
 - c. Admissions materials--biodata and application forms, course/curricula catalogues, admission-procedure manuals;

- d. Conference, seminar and short-course materials--announcements, flyers, posters, registration materials, hand-out materials for participants, agenda, presented papers, proceedings;
 - e. Reports for external audiences (ministries, departments, research institutes, other universities, etc.);
 - f. Other administrative support materials--student report forms, budgeting/accounting forms, stores requisition forms, etc
2. Print/duplicating support services for IPB teaching programs.
- a. Hand-out materials for students, course outlines, laboratory manuals, study guides, outside reading materials;
 - b. Test papers;
 - c. Student theses and scientific reports.
3. Print/duplicating support services for IPB research programs:
- a. Scientific papers and reports, either a numbered series (e.g. "IPB Research Report" series) or an "occasional papers series;"
 - b. Semi-technical research reports for decision makers, educators, extension workers and others;
 - c. Questionnaires, data-collecting forms, report forms for analytical laboratories, etc.
4. Print/duplicating support services for IPB extension programs:
- a. Training materials for extension workers;
 - b. In-service education materials for extension workers,
 - c. Educational-support materials for extension workers, hand-outs, flip-charts, brochures, charts, posters, etc. for use with village audiences;
 - d. brochures, circulars, etc.

Steps for implementing print/duplicating services at IPB as soon as possible:

1. Inventory and Evaluate Available Equipment

An important first step in developing print/duplicating support services for IPB would be to develop a complete inventory of print and duplicating equipment available within IPB and have it checked by competent engineers or technicians to determine whether it is operable; whether necessary servicing, spare parts, materials and training are available locally (Jakarta); whether it is compatible with other existing equipment and equipment scheduled for purchase; and if projected useful life justifies costs of any needed repair or servicing.

This inventory and assessment should include not only the equipment presently stored in the print shop, but also equipment now held by faculty or departmental units that could be made available to a centralized print/duplicating support service unit.

2. Develop Print/Duplicating Support Plan and Operational Budget

While the equipment is being inventoried and assessed, an individual to head the print/duplicating support service unit should be identified and an advisory committee made up of individuals representing the administrative, teaching, research and extension functions of IPB should be named. The advisory committee would work with the unit head to develop print/duplicating support service plans, policies and priorities. If deemed appropriate and necessary, an external consultant with experience in organizing and providing such support services may be brought in at this point.

The unit head and the advisory committee should survey IPB staff at all levels to determine their communication support needs and estimate the

nature and volume of materials to be produced. This will provide the basis for determining the need for additional equipment and staff and also provide a basis for projecting material and supply needs--paper, ink, typewriter and typecomposer ribbons, stencils, printing plates, art supplies etc. This will lead to the development of an operating budget that must be allocated before services can begin.

The unit head and advisory committee should also work together to develop a recommended budgeting procedure. They must recommend, for example, whether the operating budget of the unit itself must be adequate to cover all production costs--staff salaries, equipment maintenance and repair, materials, supplies, overhead, etc. An alternative would be to develop a "charge-back" procedure whereby administrative and faculty units requesting print/duplicating services would be assessed charges to cover the costs of materials, labor and prorated overhead charges.

The unit head and the advisory committee would also need to develop procedure and policy statements that would outline the basis for accepting or rejecting jobs, establish deadlines for those requesting services and provide a basis for organizing the unit and efficiently managing the work flow.

The policies would also include a basis for determining the most cost-effective method of producing needed materials (photocopy, mimeograph or offset printing, for example) and whether a particular job should be done in-house or done on a contract basis with an outside commercial printer.

3. Identify Additional Staff Needed; Recruit and Train

At least some of the staff employed in the print shop have received training in the operation of the existing printing and print production equipment and it is anticipated that they would form the basic staff for the

new print/duplicating center. Once the equipment is put into operation, they would have opportunity to practice the skills they have learned. Any "gaps" in their training could be identified and arrangements made for additional training needed.

The only additional staff needed initially would be a graphic artist (or more if projected work load warrants) who would design publications, produce simple illustrations, diagrams, graphs, etc., and paste up materials for printing. Eventually, additional graphic art staff would be required to keep up with the demand. An editor or editor-writer would also be needed to work with faculty in developing materials for print.

4. Locate Equipment in Suitable Space and Put into Operation

As soon as possible, equipment now stored in the print shop, other equipment that can be made available to the centralized unit, and newly purchased equipment should be moved to a location where adequate operational and storage space, electrical service, and other utilities (water supply, for example) can be provided. All equipment should be put into operation and production of support materials begun.

The space allocated for the print/duplicating support service unit should be suitable for dividing or arranging into functional areas: typing/type composing, graphic art, printing and duplicating, and finishing.

The typing/type composing and graphic art areas should be clean, quiet areas--preferably closed off from the other areas--so that typists, type composers and graphic artists can concentrate on their work.

The printing/duplicating and finishing areas could well be separate areas in the same large room (possibly the existing print shop). Storage for paper and other printing supplies will need to be provided adjacent to the

printing/duplicating area; space for storing and distributing finished publications will be needed adjacent to the finishing area.

All four functional areas of the print/duplicating support service area should be located close to one another to facilitate the smooth and orderly flow of work through the various stages and processes.

A likely "first job" for the print/duplicating support service unit would be to prepare and produce an announcement statement for circulation to all IPB staff explaining the types of services provided and policies and procedures for using the services of the new unit.

If the assumptions about the needs for print/duplicating support services are reasonably correct and plans to establish a centralized service unit with operating equipment in place can be realized, the work can begin from a modest start that would logically grow and expand as organizational procedures are worked out, as staff gains skills and experience, and as awareness of available support services grows among IPB staff at all levels.

It is recommended that the unit begin by providing basic duplicating services. This would require acquisition of photocopying machines, mimeograph machines, at least one electronic stencil maker (scanner), additional electric typewriters, collating equipment, a folder, and electric and heavy-duty manual staplers to supplement equipment that exists within the print shop (assuming all of that is operable or can be repaired or broken parts replaced).

Simple, text-only materials (course outlines, other class materials, reports, memoranda and the like) would be typed on stencils by faculty or departmental clerical staff and brought to the print/duplicating unit for duplication and assembly (collating, stapling or binding). The unit staff would also design and print covers if needed.

Jobs that require a minimum number of copies would be photocopied, saving the time and expense of typing on stencils. Cost analyses by the print/duplicating service unit head and advisory committee would have determined the cost-effectiveness of various reproduction methods and the announcement of services distributed to IPB staff would include specific guidelines on maximum and minimum runs.

Materials that include simple line art--illustrations, diagrams, graphs, etc.--would be reproduced by cutting a stencil on an electronic stencil maker (scanner) and mimeographed.

Some materials to be reproduced in this manner could be prepared by clerk typists within departmental or faculty units who have access to good typewriters with carbon ribbons and who have received in-service training from the print/duplicating unit staff. Other material would be typed in "scanner-ready" form by print/duplicating unit typists

In cases where original art work--illustrations, diagrams, graphs, etc.--is required, graphic artists employed by the print/duplicating unit would develop print-ready art and prepare materials for reproduction, including final typing and paste up.

More professional appearing printed materials could be produced by stripping titles, headlines and subheadings that had been composed on the Varsityper into typewriter-composed copy. Type-composed copy would be the next step in increasing sophistication of publication and would begin as soon as staff expertise was developed and needs arose.

Offset printing capability would make it possible to include black-and-white photographs and more finely detailed art work in printed materials and would permit higher quality printing (including addition of a second color

when appropriate) than any of the simpler, less costly processes described earlier.

Printed materials prepared by the unit would be stapled, bound with plastic binders or perfect bound as appropriate to the job. Adding a folder to the equipment available would make it possible to produce simple three-fold brochures and other special materials.

An editor or editor-writer would be needed to provide technical editing for scientific papers and administrative reports, to develop promotional and public relations materials for external distribution, and to "interpret" technical information for non-technical audiences.

A summary of equipment and staffing needs for beginning a print/duplicating support service unit follows. It should be noted that these reflect minimum needs for beginning operation. Final decisions should be based on the needs-assessment findings and print-support communication program plan developed.

Staff Needed:

--Print/Duplicating Support Service Unit Head

Duties would include working with advisory committee to develop plans, priorities and programs; coordinating all unit staff activities, consulting with IPB faculty on print communication support needs, budgeting, ordering and maintaining supplies, and quality control.

--Graphic Artist/Illustrator(s)

At least one graphic artist/illustrator would be required initially. More would be needed as service expands both in output and sophistication. At that time, one individual should be designated director of graphic arts to coordinate activities of others.

Duties would include preparation of diagrams and charts, cover designs, and other illustrations, stripping in headlines, final paste up for printing and duplicating.

As work loads increase, additional personnel would be hired to work primarily as paste-up artists, freeing the graphic artist/illustrators from this chore and allowing them to concentrate on design and fine illustration.

--Editor or Editor-Writer

Duties would include technical editing of reports, rewriting materials for nontechnical audiences, development and writing of public-relations and promotional materials. Again, additional editors and writers--each with more specialized responsibilities--would be needed as services were expanded.

--Typists; type composers; press, platemaking, stitching/stapling, graphic art camera, binding and trimming equipment operators. It is assumed here that the staff of the print shop have at least basic training in these areas and would be employed in the print/duplicating support service unit.

--Equipment maintenance

It is suggested that one person receive special training in basic care and maintenance of the equipment in the print/duplicating unit.

Equipment Needed:

The following equipment currently used or stored in the print shop should be moved to the print/duplicating unit and put into operation, repaired or replaced if necessary.

Typing/Type composition:

- 1 IBM Memory Typewriter
- 1 IBM Correcting Selectric II Typewriter
- 1 IBM 72 Composer
- 1 Varsityper Headliner

Darkroom/Platemaking:

- 1 Graphic art camera (Astro Hor 24)
- 1 Adana Thermograph Dryer
- 1 Rex Rotary 1515
- 1 Mounting Table

Printing:

- 1 Davidson 700 Offset Press
- 3 Gordon Letter Presses (hand operated)
 - 2 - 23 x 24 cm.
 - 1 - 34 x 45 cm.

Assortment of type for letter presses and storage cabinet

Finishing:

- 1 Stitcher
- 1 Binder
- 1 Challenge Paper Cutter
- 1 Manual Plastic Binder (Business Machine Corp. Model 47)
- 1 Electric Plastic Binder (Seepo Model 475)
- 1 Perforator

Additional equipment needed to complete the equipment package and permit production of materials as described earlier are listed below. In most cases, no specific details are given. Whenever possible, local suppliers should be sought for equipment needs to assure that any purchases can be serviced in-country. Exact numbers of typewriters, drafting tables, etc. will depend on communication support-plan developed and final staffing pattern.

Typing/type composition:

--2 IBM Selectric typewriters with assortment of elements

Graphic art:

--Drafting tables and graphic art equipment

--Mounting table

Printing/Duplicating:

--Mimeograph machines

--Electronic stencil maker

--Photocopier with reduction capability, 2-side copying capability and collating attachments

Finishing:

--Folder

--Electric Staplers

--Heavy-duty manual staplers

--Electric Collator or Collating Racks

Miscellaneous:

--Storage cabinets

--Trolleys/carts for transporting press sheets, printed pages and completed materials

--Work tables, stools, etc.

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Equipment Needed for the Rural Communication Teaching Program
Beyond That Identified for the Information Resources Center

The following list represents plans to coordinate the needs of the rural communication teaching program with those of the Communication Service Center of the new Information Resources Center of Institut Pertanian Bogor. Efforts have been made to plan for shared use of equipment insofar as possible. The following list assumes purchase of equipment items identified in plans related to the Communication Service Center. It describes additional equipment that will be necessary to carry out the teaching program at the proposed enrollment level of approximately 110 students in the diploma and magister degree programs at any given time.

The list which follows identifies needed equipment in fairly specific terms. We will be pleased to provide more complete specifications, including price estimates (US).

For Lecture Room (1)

The assumption is that an existing, equipped lecture room capable of seating 50 students and located in or near the Information Resources Center will be available for the rural communication teaching program. No further equipment is considered necessary for this room.

For Lecture-Discussion Rooms (4)

- 39 two-person work tables, 13 in **each** of three rooms
- 13 two-person work tables with typewriter wells, for use in 1 room
- 104 chairs, 26 per room
- 4 chalkboards, wall, 1 per room
- 4 projection screens, wall, 72 x

For General Teaching Support

- 2 16mm motion picture film projectors
- 3 slide projectors with cases, zoom lenses, remote controls
- 3 overhead projectors with stands
- 2 opaque projectors with stands
- 3 projection screens, portable, 60 x 60 inches
- 2 portable videotape playback units with stands, 2 monitors each

For Production/Printing Class Activities

- 4 electric typewriters, carbon ribbon, with stands
- 12 assorted interchangeable typing elements
- 1 type composer, with stand
- 1 headliner, with stand
- 20 drafting boards with appropriate basic drafting and paste-up equipment and supplies

The assumption behind this recommendation is that the Communication Service Center will provide access to equipment which will handle camera work, platemaking, printing, folding, collating, trimming and finishing activities in the rural communication teaching program. It is felt that equipment for these activities need not be duplicated. The teaching program will only need separate equipment for typing, type composing and paste-up activities. The nature of this equipment is such that it can be taken into any of the four lecture-discussion rooms, as needed, so no special production/printing class space is required.

For Writing/Editing Class Activities

- 26 manual typewriters, located in one of the lecture-discussion rooms

For Audio-Visual Class Activities

- 20 drafting tables with appropriate drafting and paste-up equipment and supplies
- 4 electric typewriters with carbon ribbons
- 1 type composer, with stand
- 1 overhead transparency maker, with stand
- 1 sign press
- 4 silk screens
- 1 headliner, with stand
- 26 chairs

The assumption behind this recommendation is that the audio-visual class activities will often require work in a special area/room, equipped with drafting tables and several other pieces of specialized equipment. Another assumption is that some of the production/printing equipment in the Communication Service Center can be used for audio-visual class activities, including the graphic art camera. Also, the teaching program would rely completely on the exhibits building facilities and equipment of the Communication Service Center.

For Audio Class Activities

- 10 sets of audio editing equipment, each set including a playback-editing unit, headset, splicing block and needed editing supplies
- 15 portable cassette recorders with microphones and carrying cases
- 15 portable reel-to-reel recorders with microphones and carrying cases
- 10 tables to be used as editing stations
- 10 chairs

The assumption behind this recommendation is that the teaching program will use the audio facilities and equipment of the Communication Service Center. In addition, students will need access to portable equipment for

on-site recording and for audio tape editing and program production. The editing stations should be set up permanently, so the teaching program will require an audio-editing area to supplement the lecture-discussion classroom space.

For Photography Class Activities

Equipment to be available for student check-out:

- 25 35mm SLR cameras with 50mm lenses
- 5 close-up lens sets
- 10 wide-angle lenses, assorted
- 10 telephoto lenses, assorted
- 25 flash units for SLR cameras
- 7 camera tripods
- 4 hand-held light meters
- 8 flood lamps with tripods

Equipment for film processing, print processing and print finishing located in a darkroom area capable of handling 10 students at one time:

- 10 film developing tanks
- 3 film washers
- 1 Senrac film dryer
- 10 enlargers, lenses and timers, with related equipment. Some with color heads
- 5 contact print easels
- 1 rotary drum dryer for print drying
- 1 dry-mount press
- 2 sink facilities for printing
- 1 temperature control unit for water system
- 1 Ektagraphic print processor
- 2 light tables

- 4 copystands with flood lamps
- 5 slide mounting units
- 1 sink facility for film processing
- 1 refrigerator for film storage

Plus trays, safelights, thermometers and miscellaneous items

The assumption behind this recommendation is that classroom photography activities should be separate from the professional photography activities of the Communication Services Center. Operations of the two types of photography activities are inherently different enough to justify separate centers of activity. Another assumption is that three related kinds of darkroom space will be available to the teaching program as described in the proposal, "Teaching Facility and Equipment Needs."

For Film/Videotape Class Activities

The teaching program will require access (under appropriate staff supervision) to video production facilities and equipment as described in the plan for the Communication Service Center. No additional equipment is requested for the teaching program.

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Some Ideas About Use of Space
in the Information Resources Center
for Rural Communication Teaching Activities

The equipment recommendations for the proposed degree programs in rural communications were based on related recommendations, made in the curriculum proposals, concerning space needed for classrooms and other areas related to teaching activities.

Therefore, it may be useful to summarize those requirements for space, then offer some ideas about possible locations within the new Information Resources Center building.

General space requirements for the proposed teaching program are estimated to be as follows:

--1 Lecture room, seating capacity of 50 students. It is assumed that this need can be met by a standard lecture room used for IPB classes. Exclusive use for rural communication courses is not necessary.

--4 Lecture-discussion rooms, used exclusively for teaching activities in rural communication. Each room should accommodate 25 students at work tables.

--1 Still photography laboratory complex consisting of:

--A light-tight film loading room

--A controlled-light film processing area capable of serving 10 students at a time

--A controlled-light print processing area capable of serving 10 students at a time

--A print finishing area capable of serving 10 students at a time

--1 Audio editing area to accommodate 10 work tables which will serve as individual tape editing stations for students.

--Audio-visual workroom capable of providing 25 drafting tables, plus open space for a type composer, headliner, several typewriters, silk screen and other specified pieces of equipment.

--1 Area for storage and check-out of equipment by students and members of the teaching faculty.

Plus office space for personnel in the teaching program, as follows:

--1 head of the teaching program

--7 full-time-equivalent teaching faculty

--9 support staff members

Depending on staffing patterns used, some office space used by Communication Service Center personnel may be the same as that for teaching personnel.

Possible Sites in the Information Resources Center.

The specific ideas that follow may or may not prove feasible in terms of earlier planning for the Information Resources Center building, in terms of considerations of which we are not aware. However, the ideas that follow may spark further thoughts about ways in which space for the teaching program can be integrated effectively with that for the communication service program.

Floor 1

--1 Lecture-discussion room, used for class activities including production/printing classes (which will rely in part upon nearby printing equipment of the Communication Service Center).

Possible location: Room 102A

--1 Audio-visual workroom preferably located near the printing and the exhibit construction areas of the Communication Services Center.

Possible location: Part of Room 117

--1 Office for teaching faculty member(s) involved in production-printing and audio-visual instruction.

Possible location: Part of Room 115 (See further discussion in the Floor 4 section about use of Room 115.)

Floor 2

None

Floor 3

--1 Equipment storage and check-out room.

Possible location: Part of Room 322

--1 Lecture-discussion room, especially for use in film-videotape class activities. Located near videotape facilities of the Communication Services Center.

Possible location: Room 323

Floor 4

--1 Photography laboratory complex. Space requirements for the teaching program, much larger than those for communication services, may prompt consideration of the possibility of using the Floor 4 darkroom area for teaching and the Floor 1 darkroom area (Rooms 112, 113, 114) for Communication Services Center. On Floor 1, the darkroom area seems able to handle a two-enlarger system, as specified in plans for Communication Services. Furthermore, all or most of Room 115 could be used for the photography service program rather than the teaching program.

Possible location: Rooms 402, 403 and 404C

--1 Audio editing area, preferably located near the audio facilities of the Communication Services Center.

Possible location: Part of Room 412

--2 Lecture-discussion rooms, particularly for use in photography and audio class activities.

Possible location: Rooms 431 and 414

--1 Office area for teaching faculty members and support staff.

Possible location: Portions of Rooms 423-429, as appropriate in terms of numbers of Communication Services Center staff members.