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REGIONAL WORKSHOP FOR HEALTH SCIENCE LIBRARIANS

Teheran, 6 - 20 May 1977

The views expressed in this report do not necessarily reflect the official policy of the World Health Organization.

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I INTRODUCTION

A Regional Workshop for Health Science Librarians, sponsored by the Eastern Mediterranean Region of the World Health Organization in collaboration with the University of Teheran, College of Education, Department of Library Sciences, was held from 6 through 20 May 1977 at the University of Teheran, College of Medicine Library, Teheran.

II THE PLANNING PROCESS

A. Origin of the plan

This Regional Workshop was the first of the training activities in an overall Regional Plan for the development of health literature services in the Eastern Mediterranean Region, which is fully described in Part III of the Health Manpower Development/Medium-Term Programme for 1978-1983, available from the Regional Office.

B. Collaborative planning

Following acceptance of the invitation of the Regional Director to the University of Teheran to collaborate in executing aspects of the above programme, meetings were held in early 1976 with the Deputy Chancellor, University of Teheran, and the Faculty of the Department of Library Sciences with Regional Office staff to discuss the aspects of the overall plan in which the University would be involved. This was followed by a visit to the Department in late 1976 by a WHO Consultant to carry plans for the Regional Workshop a step further.

It was later agreed that the Workshop would have three main components:

- (a) a short workshop within the overall workshop directed toward developing in the participants certain knowledge, skills and attitudes relating to the design and execution of a programme of training for assistant level librarians;
- (b) application of the knowledge and skills to actual preparation of a curriculum manual to be used in the training; and lastly
- (c) development and presentation of national plan for implementing the training upon return home.

C. The workshop team

The workshop team was composed of: Associate national staff who were expert librarians of the Department of Library Sciences or associated institutions, and WHO staff. The team is indicated below:

Associate national staff:

1. Dr Feri Saidi
Chairman, Department of Library Sciences
College of Education
University of Teheran, Teheran

2. Dr Alice Lohrer
Visiting Professor of Library Science
University of Teheran, Teheran
3. Miss Shirin Rahbari
Department of Library Science
University of Teheran, Teheran
4. Mr Ali Sinai
Director
IRANDOC, Teheran

Miss Nasrin Tajadod, Director, Central Library, College of Medicine, University of Teheran, while a participant in the Workshop, was very helpful, acting occasionally in the capacity of an associate national staff member.

WHO staff

1. Dr David Ford
Regional Adviser on
Educational Planning and Technology
WHO Regional Office, EMRO, Alexandria
2. Mrs Beryl Ruff
Technical Officer
Office of Health Literature Services
WHO Headquarters, Geneva
3. Dr John F. Harvey
WHO Consultant and
Former Dean, Library Services
Hofstra University, Hempstead, USA
4. Mr George Guirguis
Regional Librarian
WHO Regional Office, EMRO, Alexandria

D. Workshop objectives

The Workshop was designed so that by the time it concluded each participant would:

- (i) Understand the nature and implications of a long range overall plan for development of library services in the Region and in their country, and express commitment to its fulfilment;
- (ii) Achieve agreement on a common curriculum which will be used for training level II librarians which:
 - (a) upgrades their knowledge, skills and attitudes to an agreed upon standard level, and
 - (b) sets forth explicitly the goals, objectives, content, resources, instructional strategies, as well as continuing and certifying evaluation,

- (c) identifies those elements of the curriculum reserved for adaptation to identified local or national needs and those which are universal for the Region.
- (iii) Achieve agreement on a common evaluation scheme or guidelines based upon the standards identified above;
- (iv) Be able to demonstrate the knowledge and skills required to plan, organize, conduct and evaluate workshops or courses, based on the above curriculum, which will result in the assistant librarian students' achievement of the objectives and standards set forth, and which reflect sound principles of learning and systematic educational planning as applied to librarianship at the level of the participants concerned;
- (v) Be able to demonstrate the associated instructional skills required for the successful conduct of the workshop courses;
- (vi) Be able to demonstrate knowledge and/or skills in respect of new and current technology and approaches to the application of health sciences library science in the Eastern Mediterranean Region;
- (vii) Have defined a plan of action for training of level II librarians in their country and/or sub-region.

E. Selection and preparation of workshop participants

In light of the above objectives, governments were requested to select participants who were senior high level medical librarians within countries of the Region who could be expected to train assistant level librarians following the conclusion of the Workshop. A list of participants and countries are indicated in Annex II and included fifteen participants from nine countries.

As preparation for the workshop, individuals were asked to prepare a detailed outline of the general situation concerning the Medical Libraries in their respective countries, and to include a statement of the expected tasks they would require of assistant level librarians. The reports formed the basis of presentation on the first day of the Workshop, and are available on request for those interested from the Regional Office.

F. The Workshop site

A large room within the Central Library, College of Medicine, University of Teheran, was made available for the Workshop.

G. Organization of the Workshop

The Workshop was organized in a manner which encouraged the participants to involve themselves both in small groups and in a large group, in activities that were oriented towards the achievement of the above workshop goals. Adequate time was also available to pursue these goals further on an independent basis.

Workshop sessions generally proceeded from structured experiences, directed by individual staff members and shared in the groups, to derivation of educational concepts necessary for tasks incorporated in the work sessions and to the participants' individual projects. The team and participants provided daily "feedback" on these application efforts.

III IMPLEMENTATION OF THE WORKSHOP

To achieve the goals and objectives specified above in Section II,D., a strategy is explained below in the form of day-by-day activities, which followed the informal reception given for participants and staff on Friday, 6 May 1977 at the beginning of the workshop.

A. Opening session

On the morning of Saturday, 7 May, an informal opening session was held at the Library of the Department of Library Sciences. A message by Dr A.H. Taba (Annex I) Regional Director, addressing the Workshop participants, was read by Dr David Ford. The Workshop was inaugurated by Dr Ch. M.H. Mofidi, Deputy Chancellor, University of Teheran, followed by remarks of Representatives of the College of Education and the College of Medicine.

B. Opening of first working session

Following a coffee break and adjournment to the Workshop site, a work session followed in which participants and the team introduced themselves in a special way to promote group cohesion. Workshop objectives were reviewed, along with the Anticipated Schedule of Activities (Annex III), and the method of work, followed by an open discussion and questions.

C. Review of the present situation: general needs and problems

Each country gave a ten-minute presentation using their prepared report, mentioning highlights of the general situation in library resources and manpower in their countries as related to medicine.

The Regional view: a presentation of summary of problems expressed and a report on the WHO Regional Survey on Health Sciences Libraries was presented by Mr Guirguis. (Annex IV).

D. Future steps to meet the priority needs

The afternoon session began with a presentation of WHO policies to upgrade biomedical information services at the global level, presented by Mrs Beryl Ruff (Annex V).

The WHO Eastern Mediterranean Regional Office tentative plan for development of health literature services from 1978-1983 was presented by Dr Ford, highlighting the relationship of the present Workshop to the overall plan.(Annex VI).

A presentation of technological developments in biomedical information services and systems was presented by Dr John Harvey. (Annex VII).

E. Principles of learning

Based on their individual experiences, the participants composed a list of thirty items (Annex VIII) and that in their judgement facilitated learning. These were discussed in comparison with a handout, "Characteristics of Desirable Learning Activities" (Ref.1).

F. Group interaction

In the process of selecting which three attributes were most desirable in their future assistant librarian student, the group was observed by the team and various stages of group development were pointed out with the aid of two handouts. (Ref.2, 3).

G. Definition of objectives by observable behaviour

Using a hypothetical student (hypothetically each participant's son) as a future assistant librarian, the participants outlined what general attributes they wished to see in him at the time of his graduation (Annexes VIII, b, c).

H. Selection of instructional strategies

Small groups of participants were asked to design a learning experience using the principles of learning (Ref.4) to achieve a specified educational goal, which was then discussed and reviewed by the whole group.

I. Systems approach to educational planning

Using the model of their work on objectives, specific observable behaviours, evaluation and instructional strategies above, the total group built up a systematic approach outlining the sequence and discussing the various components of the educational cycle as illustrated in a handout (Ref.5).

J. Classification and preparation of instructional objectives

In the large group, participants discussed the various kinds of objectives (Ref.6) and levels in each kind, which was followed by participant work to transform the general attributes identified under G, to instructional objectives. Handouts "Objectives of Training Programmes" (Ref.7), "Let's Write an Objective" (Ref.8), "Learning Examination - Behavioural Objectives" (Ref.9), and "Illustrative Verbs for Stating Behavioural Objectives" (Ref.10), were provided and discussed during this session.

Students completed and then discussed a learning examination on objectives.

K. Review session

A review with participants of the activities completed in the preceding three days was then undertaken as a basis for the remaining work.

L. Objectives versus evaluation

The participants were asked to choose from a prepared list (Ref.11) in conjunction with handout, "check-list for Selection of Evaluation Techniques" (Ref.12), the type of examinations they would use to measure each of several previously selected objectives. They were then asked to discuss the appropriateness of their selections. The discussion was aided by a paradigm describing relationships between objectives and examination methods (Ref.13).

M. Description of advantages and disadvantages of various examination methods

A handout (ref. 14 and 15) of the same title was discussed, taking care not to condemn or over-subscribe to any method, followed by an exercise constructing multiple-choice questions (ref.16). Given an objective, each participant wrote two multiple-

choice questions, refined them in small groups of five or six, using a checklist (Ref.17), and then presented the questions for review by the large group.

N. Checklists and rating scales

Types of objectives measured by checklists and rating scales, differences between the two, and various types of each were discussed and examples presented (Ref.18). Using a skill (psychomotor) and an attitude (affective) objective, participants designed a checklist and a rating scale for each, respectively. Refinements were made using a guideline (Ref.19) and the results were presented to the entire group.

O. Demonstration technique

Participants watched a demonstration, discussed its qualities and characteristics, prepared as a large group a checklist of criteria (Annex VIII d) to be used for assessing the quality of demonstration. Participants then individually prepared a demonstration and adjourned to small groups for presentation and discussion of the demonstrations. Selected presentations were then given to the large group and discussed, using the checklist of guidelines developed by the group.

P. The lecture method

In parallel fashion to the demonstration technique, the group observed a live brief lecture, discussed its strong points and faults (Annex VIII e), and on this basis prepared a checklist of criteria for evaluating lectures. In small groups using as a basis the prepared checklist, individual participants revised their ten-minute lecture prepared the previous evening. Next, one lecture from each group was presented to the large group, applying the checklist developed by the group to evaluate its quality. Feedback was then provided to each participant followed by discussion.

The Workshop portion devoted to educational theory and methodology concluded and work then began on the refinement of the draft version of the "Manual for Teaching Assistant Level Librarians". The draft manual included tasks; objectives in the knowledge, attitude and skills domains; selected learning experiences to meet the objectives; resources required in the learning experiences; and evaluation methodology to be used in evaluating achievement of the objectives. Each of the segments of the preceding portion of the Workshop were devoted to developing participant skills in one or more of these aspects.

Q. Assignment sheet

A handout requesting participants to review the tasks indicated in the draft of the curriculum manual was presented, along with a draft definition (Annex IX a) of an assistant level librarian, for their review and discussion at the beginning of the following day.

R. Definition of assistant level librarian

Using the handout draft definition of second level librarian, the group discussed and agreed upon an acceptable definition for this category of worker which they would be training in due course (Annex IX b).

S. Major topic areas in the draft curriculum manual

The group then reviewed the draft Table of Contents of the manual and amended it to include other areas considered important, for all future assistant level health science

librarian students in the Region, or in some cases optional areas which could be taught to some students in certain settings. Agreement was reached on the classification topic areas, and a new Table of Contents was prepared (see Manual).

T. Selection of tasks and objectives for assistant level librarian

Working groups were formed to take responsibility for selected parts of the Table of Contents and the corresponding contents in the draft manual. Working groups then examined, task by task, and objective by objective for each of their assigned Table of Content topic areas, the respective tasks and objectives, in order to amend and reach final agreement on them. At the end of each day, each group presented its topic areas, tasks and objectives, followed by discussion, and then adoption by the overall group of the agreed on tasks and objectives.

U. Teaching/learning activities

Following the same approach and using and applying the knowledge and skills learned during the first week of the workshop, the same groups of participants in the same content areas then revised, adapted or wrote new material for teaching and learning activities as related to the achievement of the agreed on objectives. Toward the end of the day individual groups presented their work to the large group for overall adoption for the manual.

V. Resources list

In the same fashion the same groups worked to review, revise and adapt their resources list to be used in carrying out the teaching/learning activities and achieving the objectives. Where appropriate, self-instructional units were outlined for later completion. Toward the end of the day groups presented their work to the large group for adoption into the manual.

W. Evaluation methods

In parallel fashion the working groups began revising, adapting or writing actual evaluation items, keyed to the specific objectives and learning activities in the previous day's work. Multiple-choice questions, matching questions, essay questions, checklists and rating scales were prepared for insertion into the manual. Toward the end of the day working groups presented their work to the overall group for adoption.

X. Adoption of manual "standards" and curriculum, review of characteristics of assistant level librarians, and identification of possible types of training programmes

The large group in plenary then discussed adoption of all preceding work as a set of tasks and standards, suitable for all of the participating countries for the training of assistant level health science librarians. This was followed by a review of the probable characteristics and "level" of assistant librarian candidates, as a basis for identifying the possible kinds of training programmes which would be suitable for the training of assistant librarians. Among others, the range of proposals included work study programmes, extended workshops, formal or credited courses and part-time study.

The second major segment of the Workshop was thus completed with the product being an adopted set of standards for training assistant health sciences librarians, and agreed on definition of the personnel category, and a complete teacher's manual-curriculum for training this category. Having completed the major portion of the Workshop, the individual country groups were then ready to prepare a plan to execute on return home for training of assistant health sciences librarians.

Y. Preparation and presentation of national plans

The large group identified all factors to be included in local or national plans for training assistant health sciences librarians and compared these to a handout provided (Annex X A). New groupings, consisting of individuals from each country, were then formed into "country groups" to prepare either local, institutional or country-wide plans for training. Later, country groups presented their plans (example, Annex X b) for critique by the large group. The plans were to be the basis for developing training programmes on return home, after the Workshop report and copy of the training manual was received.

Z. Proposals, recommendations and evaluation of the Workshop by participants

The Workshop closed with a series of proposals and recommendations resulting from it (see Section V). Participants then evaluated the workshop by completing the evaluation form as a feedback to organizers of the Workshop. The form with results is found in Annex XI.

The Workshop was followed by a visit of two days' duration to the Health Sciences Libraries at the University of Isfahan and Pahlavi University, Shiraz.

IV EVALUATION

The Workshop had a built-in provision for evaluation. The criteria used for evaluation were:

- A. Material produced by participants during and at the end of the Workshop.
- B. Daily oral feedback from participants.
- C. Final written feedback from participants.

A. Material produced by the participants

Evaluation of the materials produced by the participants was based on two factors: (1) the quality of material produced and (2) the overall manual produced by the end of the Workshop, and (3) the national plans.

B. Daily oral feedback from the participants

At the end of each day's session each participant was given a chance to state his reaction to the day's activity and to make suggestions for improvement. A selection of these comments during the first week of the Workshop follows:

"It is a good idea to divide into groups so that each knows the other"

"I had been a teacher for many years but this was a real new experience; I enjoyed very much and learned a lot today"

"Today is my first day to feel a member of this meeting"

"I think it was interesting, enjoyable, a new method to me. I have not gone through that before"

"It is a good experience for us especially indicating to us the idea of teamwork for the librarians"

"I think this was a practical way of understanding the principles of two important topics"

"Exhausted our efforts today"

"It is very useful and practical; what should I add?"

"I think we have been introduced to education in psychology in a tactful way"

"It was very enjoyable and we are not tired as we were yesterday"

"We are getting much better every day"

"It was very interesting to experiment and practice"

"It was useful because everything was clear"

"I am very happy for seeing a tangible result"

"I feel that we need more time for practising in the Workshop"

"It is very practical, simple; day by day I know the people more and they are close to me more"

"The new approach for learning as a teacher was useful"

"The job of the teacher and/or educator is not easy"

"I think we have achieved very well compared to the limited time"

C. Final written feedback from the participants

An evaluation form (Annex XI) elicited information from the participants regarding the Workshop, and the detailed results are indicated on the form itself in the Annex. In general the results showed the following in relation to each of the items in the evaluation form.

1. The objectives of the Workshop were achieved very well: (average of responses about 2.0 or very well).
2. Principles of learning were applied in the Workshop exceptionally well: The Annex indicates that with one exception, out of nineteen principles of learning, all principles were used in a way which is mid-way between very well and excellent.
3. Duration: fourteen participants felt that the number of working days was too few, one indicated "enough", none felt there were too many working days. Without exception, all participants felt the number of working days should be increased by between four days and one week.
4. Generally participants indicated that if they were to attend such a Workshop again, they would make the following changes:

More working time, more time for entertainment, and a selection of more uniform participants.
5. Participants indicated almost without exception that the activities they consider to be very useful were the learning activities in which a prominent characteristic was their own act of participation.
6. Of activities considered not useful or which could be improved, twelve participants indicated all activities were useful; two participants felt more time should have been devoted to final evaluation and one participant felt it appropriate to revise the composition of groups more frequently than the three times during the Workshop.

7. Participants had a mixed reaction to the social programme. Most felt more time was required, and this reflected the overall time shortage available for the Workshop.
8. The overall feelings and opinion of participants about attending the Workshop as indicated by participants was generally quite positive, with a number indicating they would desire to attend a Workshop again.

V RECOMMENDATIONS

Participants made the following recommendations:

1. Further such Workshops should be conducted.
2. Participants, as trainers of assistant librarians, should be encouraged by governments to issue a "Certificate" of assistant health science librarianship.
3. In order to increase the number of level I trainers, WHO should be encouraged to collaborate in making available fellowships or other means.
4. WHO should support translation of the teacher's curriculum/manual into national languages (e.g. Persian, Arabic) as necessary.
5. WHO should carry out the Regional Plan and especially promote the development of regional standards in health science libraries, manpower and resources.
6. The establishment and development of a regional health science library association should be encouraged.
7. The establishment/development of at least one national medical or health science library to serve as focal point for health science librarians training, etc. should be encouraged, where applicable.
8. The Assistant Health Sciences Librarian Training manual should be widely distributed both within and outside the Region.
9. WHO should follow up with governments, as necessary, recommending implementation of plans of the training, resulting from the Workshop.
10. A continuous means of communication between health science libraries in the Region should be established through the Regional Office.
11. A special follow up to this Workshop for revision of the manual, based on practical application through training, should take place after one to one and a half years, and should include teachers of assistant health science librarians.
12. Participants who train assistant health sciences librarians should report their training experience periodically to WHO.
13. Participants who follow up with training should begin as soon as possible but not later than January 1978, once the manual becomes available.

ACKNOWLEDGEMENTS

The participants wish to express their appreciation to WHO for making possible their participation in the Workshop, and to the Government of Iran and the University of Teheran authorities and staff for ensuring the success of the Workshop and providing a pleasant social programme.

The Workshop Team similarly wishes to express deep appreciation to the Government of Iran for collaboration in ensuring the success of the Workshop. The team further feels deeply indebted to Dr A.H. Taba, Regional Director, for his continuous support during the planning and implementation of the Workshop.

ANNEX I

MESSAGE FROM DR A.H. TABA
DIRECTOR
WHO EASTERN MEDITERRANEAN REGION
TO THE
REGIONAL WORKSHOP FOR HEALTH SCIENCE LIBRARIANS
TEHERAN, 6-20 MAY 1977

I take pleasure in sending this message of greetings to the participants in this important educational exercise for senior librarians from health science libraries of our Eastern Mediterranean Region.

I should like to take this opportunity of conveying our whole-hearted thanks to the authorities of the University of Teheran, its College of Education and the Department of Library Sciences for hosting this Workshop and for their intimate collaboration with us in designing and carrying it out.

Training of health science librarians represents one more area in which the World Health Organization is benefiting from the intimate collaboration of the University of Teheran, and I would particularly like to say how much we appreciate the help and guidance of Dr Mofidi who, once again, as on so many occasions in the past, rose imaginatively to our initial enquiries about a year ago as to how the University could help in this subject.

As you know, WHO's task is to help, in close collaboration, with the Member Governments of the twenty-four countries of this Region, to carry out activities which will lead to the improvement of the health of the people of those countries.

One of the main ways in which we try to do so is by a very wide range of educational activities. We work with the Governments in planning what kinds of education are needed; in helping them to design the right kind of schools and the right kind of training programmes in these schools, and in trying all the time to make sure that the training programmes which are given, genuinely match the needs of the health services of each country.

We have recognized for a very long time that training programmes are not much use unless they are backed up by good learning materials and by good sources of information about the health sciences.

It is for this reason that, for many years, we have worked with our Member Governments to support the health science libraries in the Region, particularly those in the Universities and Ministries of Health, in a variety of ways. We have provided fellowships for the training of librarians; we spend some hundreds of thousands of dollars each year in supplying literature in the form of journals or books to libraries and training programmes, and we have long had a small programme of consultant services with which some of you are familiar.

At the present time we are engaged in the rapid building up of our support to health literature services in the Region. This support will take several forms.

For example, you will learn during this week about the special relationship which we are in the process of working out, with one new and very imaginative Library in Teheran, the Pahlavi Medical Library and Biomedical Communication Centre of the Imperial

Medical Centre of Iran, It is our hope that in the near future the Pahlavi Medical Library will be able to become a focus for many aspects of library service which will be of assistance to all our Member countries, and perhaps some others, and to you as senior librarians in helping fulfil the needs of the Region for health and medical information.

Another aspect in this field continues to be the supply, on soundly-based technical grounds, of health literature directly to libraries and schools. In this connection, we have recently prepared, and you will shortly be receiving, a basic list in English of books and periodicals for medical libraries to meet the requirements of medical faculties.

In 1974, many of you helped us in completing a questionnaire which was part of our continuing survey and review of what is going on in the Libraries of the Region, what are their needs, what are their resources, what they are able to do, and what they think they should be able to do.

Of the many interesting findings from this survey, we received confirmation of one of the central problems which are facing our libraries, as it is facing many of our health institutions. That is the extreme shortage of qualified manpower. During this week you will be learning more about that survey, and each of you already knows the shortages of personnel, even modestly trained personnel, to help you in your work.

As a result, and in close consultation with a number of people, including the authorities of the University of Teheran, we felt that one of the most useful things we could do would be to invite a small number of the senior librarians identified in that survey to come to the workshop which is now convening.

The purpose of the workshop is, as you know, to help you yourselves to become more effective trainers of the additional personnel who are required in your own and other libraries of the Region.

This Workshop is not going to be a series of lessons on how to be a good medical librarian, although we hope we can contribute towards updating your knowledge, and in familiarizing you with some of the most modern approaches to medical librarianship. We are sure that the staff involved in the workshop, from WHO on the one hand, and from the University of Teheran on the other, will be able to give you a lot of information which you might not otherwise easily obtain.

But this is not the main purpose of this two-week workshop.

The principal purpose, instead, is that you should acquire, in a helpful way, some skills in training others that you may not have had time to acquire in your busy life so far.

In this workshop, you will have the opportunity of developing and agreeing on a sound and systematically-designed curriculum for the training of assistant health science librarians, which we hope that you will be able to try out and apply directly on return to your country, in the coming year. For many of you, this may be the first time you have devoted this length of time to the intensive development or improvement of your knowledge and skills as a teacher and course designer, as a step to preparing library personnel able to meet the local needs and carry out the tasks which you decide are relevant.

I wish you well in your work and look forward to learning of the outcome of your efforts.

ANNEX II

LIST OF PARTICIPANTS

EGYPT

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IRAQ

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Medical Librarian
Faculty of Medicine
University of Khartoum
Khartoum

SYRIA

Mr Mohamed Nidal Istanbouli
Director, University Libraries
University of Aleppo
Aleppo

Mr Zuher Hasan El-Attar
Medical Librarian
Faculty of Medicine
Damascus University
Damascus

WHO SECRETARIAT

Dr David L. Ford

Scientist, Educational
Planning and Technology-
Secretary to the workshop

WHO Regional Office for the
Eastern Mediterranean,
Alexandria, Egypt

Dr John F. Harvey

WHO Consultant

Former Dean, Library Services,
Hofstra University, Hempstead,
USA

* Departed early due to ill health

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Mrs Beryl Ruff	Technical Officer	Office of Health Literature Services, WHO Headquarters, Geneva
Mr George A. Guirguis	Regional Librarian	WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt
Mrs S. Miskjian	Secretary	WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt.

ANNEX III

ANTICIPATED SCHEDULE OF ACTIVITIES

Site: Department of Library Sciences, University of Teheran premises

FRIDAY, 6 May 1977

- 16.00 p.m. - 18.00 p.m. - Registration of participants
- 17.00 p.m. - Informal Reception at the University Club

SATURDAY, 7 May 1977

- 08.30 - Opening of the Workshop
- Inaugural Address by Dr Ch. M.H. Mofidi, Deputy Chancellor, University of Teheran
- Message from Dr A.H. Taba, WHO Director Eastern Mediterranean Region
- 09.45 a.m. - 10.15 a.m. - Coffee break*
- 10.15 a.m. - 11.15 a.m. - Overview of the Workshop
- (a) Introduction of participants and staff
- (b) Objectives
- (c) Review of Anticipated Schedule of Activities
- (d) Method of work
- 11.15 a.m. - 13.00 p.m. - Review of the present situation: General Needs and Problems
- (a) Presentation of country report highlights by participants
- 13.00 p.m. - 14.00 p.m. (b) The Regional view: summing up of problems facing health sciences literature services
- 14.00 p.m. - Coffee break
- 16.30 p.m. - 19.30 p.m. - Future steps to meet the priority needs
- (a) WHO International Policies to upgrade biomedical information services
- at the global level
- at the regional and national levels
- Coffee break

* Informal breaks will take place as needed during the workshop.

- (b) Implementation of Policies: The WHO Regional Plan 1978-83
- (c) Technological Developments in biomedical information services and systems

SUNDAY, 8 May 1977

Educational Background for participant work during and after the workshop

08.00 a.m. - 10.30 a.m.
10.30 a.m. - 11.00 a.m.
11.00 a.m. - 14.00 p.m.

- Principles of learning
- Coffee break
- Introduction of Educational Planning Group Interaction

MONDAY, 9 May 1977

08.00 a.m. - 09.30 a.m.
09.30 a.m. - 11.00 a.m.
11.00 a.m. - 11.15 a.m.
11.15 a.m. - 14.00 p.m.

- Definition of objectives by observable behaviours
- Systems approach to educational planning
- Coffee break
- Classification of objectives
- Preparing instructional objectives
 - Practice
 - Self-administered learning examination
- Tour of University of Teheran Libraries

16.30 p.m.

TUESDAY, 10 May 1977

08.00 a.m. - 08.30 a.m.
08.30 a.m. - 11.00 a.m.
11.00 a.m. - 11.15 a.m.
11.15 a.m. - 14.00 p.m.

- Objectives vs Evaluation, and some techniques used in training level II librarians
 - (a) characteristics of a good test
 - (b) multiple-choice questions and their construction
- Coffee break
- (c) checklists and rating scales: use and construction

WEDNESDAY, 11 May 1977

08.00 a.m. - 10.30 a.m.
10.30 a.m. - 10.45 a.m.
10.45 a.m. - 13.00 p.m.
13.00 p.m. - 14.00 p.m.

- Instructional methods used in training level II librarians
 - (a) demonstration method
- Coffee break
- (b) lecture method
- (c) assignment sheets in self-directed study
- (d) assignment for next session (14 May)

THURSDAY, 12 May 1977

08.30 a.m. - 10.00 a.m.

10.00 a.m. - 11.30 a.m.

11.30 a.m.

- Tours
- Pahlavi Medical Library of the Imperial Medical Centre of Iran
- Cardio-vascular Medical and Research Centre Library
- Iranian Documentation Centre and Teheran Book Processing Centre

FRIDAY, 13 May 1977SATURDAY, 14 May 1977

08.00 a.m. - 14.00 p.m.

16.30 p.m. (if necessary)

- Free

Establishment of Standards and Curriculum for Level II Health Science Librarians, using the draft "Teacher's Manual"

- Identifying basic tasks, and needed attitudes, skills, knowledge of practising level II Health Science Librarians
 - for the Region
 - for local decision

SUNDAY, 15 May 1977

08.00 a.m. - 14.00 p.m.

16.30 p.m. (if necessary)

- Review and development of relevant content, methods, activities

MONDAY, 16 May 1977

08.00 a.m. - 14.00 p.m.

16.30 p.m. (if necessary)

- Review and development of instructional materials for exercises

TUESDAY, 17 May 1977

08.00 a.m. - 14.00 p.m.

16.30 p.m. (if necessary)

- Establishment and agreement on evaluation methodology

WEDNESDAY, 18 May 1977

08.00 a.m. - 08.30 a.m.

08.30 a.m. - 10.00 a.m.

10.00 a.m. - 10.15 a.m.

10.15 a.m. - 11.15 a.m.

Implementing the curriculum: training level II librarians

- Adoption of regional standards/curriculum prepared 14-17 May
- Programme of learning for level II librarians: selecting of the type(s) of training programme(s)
- Coffee break
- Development of a local/national plan for training of level II librarians, including:
 - obstacles to be overcome
 - self-evaluation plan

- 11.15 a.m. - 13.00 p.m. - Presentation of country plans by participants
- 13.00 p.m. - 13.30 p.m. - Proposals/recommendations for follow-up of workshop
- 13.30 p.m. - 14.00 p.m. - Evaluation of the workshop
- 14.00 p.m. - Lunch recess
- 19.00 p.m. - Closing banquet at University Club

THURSDAY, 19 May 1977

- 07.00 a.m. - Depart to Isfahan
- 08.00 a.m. - Arrive Isfahan and tour by bus the Maidani Shah area and the University campus
- 11.30 a.m. - Luncheon with Isfahan librarians
- 14.00 p.m. - Depart to Shiraz
- 16.00 p.m. - Tour Pahlavi University campus and College of Medicine Library
- 19.00 p.m. - Dinner at University Club with Shiraz librarians

FRIDAY, 20 May 1977

- 08.30 a.m. - Bus trip to Persepolis
- 15.00 p.m. - Depart to Teheran

ANNEX IV

THE REGIONAL VIEW: A SUMMING UP OF PROBLEMS FACING
HEALTH SCIENCE LITERATURE SERVICES (PRESENTED BY MR G.A. GUIRGUIS)

(Introductory, summary on new problems revealed by participants which were principally related to the limited foreign language ability of the target group and the lack of systematic national and/or regional opportunities for training).

In addition to the information presented by participants, we may further summarize the present situation with reference to WHO/EMRO survey which was conducted towards the end of 1974, with the following objectives in mind:

- (1) Systematic collection of baseline information on existing medical library resources and structures;
- (2) Appraisal of the current services and practices of medical libraries;
- (3) Drawing up of future programmes of WHO assistance in the light of findings.

The survey depended solely on a questionnaire that contained twenty questions, covering many facets of health science library services and organization, and including open-ended questions on priorities held for improvements and general observations.

The questionnaire was addressed to 133 health science libraries in twenty countries in the Region. Out of these, ninety-eight libraries responded to the questionnaire, constituting 73.7 per cent of the sample. The response, however, included 90 per cent of the principal medical libraries in the Region and, hence, could be considered as well representative of this important category of libraries.

In the first stage, the data received was first tabulated countrywise, thus making available profiles for each country on which a basic core of information has been received. The situation of health science libraries was then reviewed in a general report on the Region as a whole. The following is a summary (and in some cases, comments) on the situational analysis of this report.

1. Staffing

The number of professional medical librarians as reported at the end of 1974 was thirty professional (library education at university or postgraduate level + senior position) and 117 sub-professionals (university training with or without library training).

Upon visualizing the status of manpower as compared with the optimum number of staffing for four categories of libraries varying according to their holdings¹, the resultant figures were (- 16) for professional and (-27) for sub-professionals.

¹Category I, with holdings of over than 25 000 volumes: 2 professionals; 4 sub-professionals
Category II, with 10-24, 900 volumes 1 professional; 2 sub-professionals
Category III, with 5-9, 900 volumes 2 sub-professionals
Category IV, less than 5 000 volumes 1 sub-professional

There is, however, a case where medical libraries in one country were run solely by non-professionals. In other countries, the accelerated growth in the collections was not matched with a corresponding number in library staffing.

2. Training

Lack of training opportunities was evident in that only 13.6 per cent of the various staffing categories has been involved in training and education programmes during the period from 1971 to mid-1974. The largest number has perhaps been in a workshop organized by WHO in 1972. The content of training, too, was not always relevant to the needs of health science libraries. In one case, a librarian was trained on computer programming when the basic organization of the library has not been attained.

3. Budgeting and expenditure

The figures included under this heading are for the medical libraries only in the countries concerned. There were, however, cases where the medical library in a certain university was part of the Central Library. Thus, information on budgetary allocations was not included, due to the special needs of a medical library, as contrasted, for example, to a library serving the humanities.

Out of seventy-one principal libraries, there were ten which gave no mention of a budget. Six other libraries had occasional budgets. It appears that the number of medical libraries with a regular budget is 55 (77.6 per cent).

The highest per capita expenditure was provided by a newly-established medical library in one of the oil-producing countries. This reached a peak of \$ 231.8 per user (staff and students). The following highest per capita was \$ 44. The median per capita for the Region as a whole was \$ 14 per user with a lowest figure of \$ 6.6.

These low budgets in the majority of medical libraries do not cope for the inflatory prices of health literature, which in 1976 scored an average of \$ 20 per medical text-book and \$ 31 for a periodical. The annual rate of increase has been approximately 15 per cent during the last three years.

In comparison with the above standards, the average annual per capita figure per user in the United States during the period from 1969-1971 was \$ 148¹. Judging on the rate of increase in the price of health literature, the figure for 1976 may have reached the standard of \$ 250 per medical library user.

The question that we may pose in this regard is how much a medical library receives in comparison to the parent institution's total expenditure. For our guidance, we may refer again to two developed countries: In England, despite the present average of 3.8 per cent of total university, the Standing Conference on National and University Libraries has recommended an increase up to 6 per cent for university libraries².

In the USA, a minimum of 5 per cent of the general university budget is allocated for libraries. The percentage should be higher if the library's holdings are seriously deficient.

¹Calculated on the basis of information included in:
Rees, Alan M. "Medical school libraries, 1969-71",
in Bulletin of the Medical Library Association, volume 60, No.2 (Suppl.), 1972,
13-18.

²Withers, F. N. Standards for library service: an international survey. Paris,
UNESCO Press, 1974.

4. Holdings

The data received on holdings was taken with caution. Experience has shown that the resourcefulness of a library lies in many cases in the quality of holdings and services rather than quantity. However, judging from the balance between four categories of holdings (books, current periodicals, bound periodicals, bibliographic and abstracting journals), the largest collection was maintained by the American University of Beirut (ranging second under practically all categories of holdings), Pahlavi University, Iran (First position in current and bound periodicals); Teheran University (ranging first under books); Baghdad University, Alexandria University and, though newly established, the Medical Faculty, University of Riyadh. In addition, there are other national centres of importance in relation to bound periodicals, such as Cairo University, National Health Laboratory (Sudan), Institut Pasteur (Tunis and Iran), School of Public Health (Teheran). The largest collection of books was approximately 38 000 volumes. Current periodicals reached the figure of 850; and the largest number of bound periodicals reached 46 000 volumes.

5. Library organization

5.1 Cataloguing and classification

As to the systematic organization of library collections, only fifty-five libraries (constituting 62.5 per cent of the responding libraries) had a recognized system of classification. General schemes, such as Dewey and the Library of Congress were, however, used by thirty-five libraries (i.e. 63.5 per cent of the number of libraries with a recognized system). Of the specialized classification adopted was the NLM's which was adopted by nine and Barnard's by two.

With regards to cataloguing, fifty-six libraries (56 per cent) reported as having an author and subject catalogue. Thirty other libraries had only an author catalogue.

The figures for cataloguing are, however, to be taken with caution, as the quality of a catalogue cannot be assessed well with a questionnaire.

5.2 Accessibility to the collection

As is well known, it has long been established that an open access system is one of the best means of promoting the use of library literature.

This is more the case where catalogues and their uses are not fully developed in the Region. Only twenty-eight libraries reported as having an open access system for students and staff alike. Twenty other libraries had a partial access system.

5.3 Staff compensation for book loss

This could be considered as a regulation limiting use of library materials and, perhaps, the reason for the closed access system in many libraries in the Region. It transforms library staff as rigid custodians determined to safeguard library materials, preventing their free circulation in and outside the library.

Out of eighty-three libraries that provided information on this aspect, there were still forty-eight libraries (57.8 per cent) in which staff are held responsible for book loss. In many countries, this practice is the rule, rather than an exception.

6. Library co-operation

With the present developments in information technology, inter-library co-operation at various levels has become an important factor in responding to the complex needs of research which could not otherwise be satisfied from the local medical library, however sizable its collection could be. Thus libraries are nowadays entering into formations and networks with the object of pooling their resources at various levels. The principal forms of co-operation are (1) issuance of union catalogues (2) provision of bibliographies (3) photocopying services, and (4) inter-library loans.

No regional medical information as such existed at the time of the survey. There was, however, reference on the use of national documentation centres, such as IRANDOC, PANSDOC and NIDOC (Egypt). Some of the principal libraries in the Region, also, shared their resources to a certain degree with other medical libraries, principally at a national level.

In addition, there were twenty-five libraries (28.4 of respondents) that had certain arrangements for obtaining photocopies from international and world-known sources. Among these sources, WHO came to the fore with a score of twelve. There were other American and British sources, such as the National Library of Medicine, the National Lending Library at Boston Spa and the British Council. Among the important sources for medical literature in French was the Centre national de la Recherche scientifique, Paris.

7. Availability of microform and photocopying equipment

The availability of microform facilities for storage, reading and printing could be considered necessary in certain stages of development both in relation to scope and variety of services. It may, nevertheless, be hard to justify this service if the general infrastructure of a medical library is not full developed. The same reasoning applies for photocopying services.

At the time of survey, eighteen libraries (20.4) reported as having microform facilities. Those having photocopying equipment numbered 31 (35 per cent). With few exceptions, photocopying facilities were available at the principal medical libraries in the Region.

8. Priorities for improvement as expressed by respondents

The questionnaire included an open-ended question whereby respondents could indicate up to five priorities, arranged in order of importance in a descending order.

The following is a broad categorization of these priorities, arranged in order of their weighted scores. These scores have been calculated on the basis of the position of priority, and the number of libraries sharing the same view:

1. Additional needs for professional and sub-professional staff	295
2. Training and development of library staff	266
3. Strengthening and organization of periodical collection	207
4. Consolidation of book collection	174
5. Building up of physical facilities (Furniture, space, lighting and ventilation)	167

6.	Photocopying and microfilms reading equipment	140
7.	Budget for literature	129
8.	Utilization of and subscription to abstracting and bibliographic journals	116
9.	Microfilm storage and equipment	94
10.	Audiovisual aids and equipment	84
11.	Technical organization	84
12.	Co-operation, including union catalogues and standardization in technical services	65
13.	International assistance, material and technical	39
14.	Decentralization in the administration and finance of the library	24
15.	Library instruction for students	23
16.	Automation in library processes	20
17.	Foreign exchange (waiving of restrictions)	16
18.	Safety and control measures (e.g. consolidation of guards)	13
19.	Better status for librarians	10
20.	Translation services	5

It would appear from the previous order of priorities that the component related to the need and development of staff is by far the largest (295 and 266). Following this, there is the need for the consolidation of the literature collection (periodicals 207, books 174).

In general, the priorities expressed largely touch upon the problems characteristic of health science libraries in the Region.

ANNEX V

WHO INTERNATIONAL POLICIES
TO UPGRADE BIOMEDICAL INFORMATION SERVICES AT THE GLOBAL LEVEL
(presented by Mrs Beryl Ruff)

Realizing the vital role played by the regular exchange of information - old and new - in all developmental activities, the World Health Organization has always maintained active health literature services in support of its own programmes, and has strived to fulfil its function as an international agent in the transfer of biomedical information between the WHO Member States: this, both by disseminating the WHO publications and by providing information per se in response to demands. From the earliest days, WHO also supported a small central purchasing service to provide library materials to needy institutions in developing countries.

Such activities are insufficient, however, to make an impact on the total needs in this field throughout the world. During the last decade, it has been recognized that an effective strategy to ensure easy access to all health-related information by persons engaged in the health field is the upgrading of local health science libraries and documentation centres to certain basic standards, and the linking of these various health science resources and services into national networks and, ultimately, regional (or sub-regional) and international networks. Here I use the word "regional" in the geographic sense and not necessarily with WHO's specific connotation.

WHO's overall goal therefore is to co-operate with Member States in the further development of national and regional health literature resources and in the improvement of services and networks to bring biomedical information within easy geographic reach of all its potential users. This can be done in a variety of ways and we realize the importance of adapting the policies to differing local conditions. Networks, for instance, can be constituted in very different patterns.

Further to surveys carried out at the regional level and to the many discussions held by WHO staff with senior administrators, with health literature user groups and with librarians at all levels, some of the basic activities required to improve the existing situation have been identified as follows:

Basic activities to improve health literature services

- I Identify the user groups and their needs
- II Survey the existing situation
- III Train health science librarians
- IV Upgrade and expand the quality, quantity and currency of the health literature resources, including audiovisual materials
- V Improve the services
- VI Develop Regional Health Science Libraries and/or regional referral services
- VII Develop back-up resources (back runs of abstracting and indexing journals, etc)
- VIII Develop back-up services, especially bibliographic information services, document delivery systems, referral services, expertise, etc.

- IX Promote the formation of networks and encourage co-operation
- X Create communication channels for exchange of experiences, further planning, international co-operation, co-ordination, etc.
- XI Develop a Public Health Literature Information System, to bridge a gap in the existing bibliographic information services
- XII Tackle special problems: accelerated delivery of essential tools, textbooks, languages, hard currency, local publishing, communications, etc.

ANNEX VI

IMPLEMENTATION OF POLICIES: THE WHO REGIONAL PLAN 1978-1983
(USED IN CONJUNCTION WITH COPY OF THE PLAN)
(PRESENTATION BY DR D. FORD)

Now that you have increased your understanding of the WHO global policies regarding improvement of health literature services, I would like to take this opportunity to describe the Regional Plan for development in this area, in response to requests of your Governments. As you may know, the WHO Constitution requests WHO "to establish such technical services as may be required" for the production of health, training of manpower, etc. Recently, the World Health Assembly has requested the Organization to take steps towards "improvement of medical library services for the effective use of published biomedical information, and particularly the development of regional medical libraries". Your Governments, through the Regional Committee, have specified as a priority that "increasing emphasis will be given to collaboration with Member States in improving the library resources of training institutions, including the training of librarians".

As a result of these directives it has been decided to establish a plan, and from this plan to prepare a programme of technical co-operation with Member States to meet defined needs. This programme, with each of you have as a document of the workshop, for the health literature services area, has an introduction, a situation analysis, objectives, quantified and qualified targets, and specific activities, to carry out the plan.

I should like to take this opportunity to review briefly each of these areas and then provide you with the opportunity to ask any questions you may have about this plan.

In order to prepare a programme systematically, it was necessary first to analyze the situation. One way of doing this was the WHO Library Survey which you heard about earlier today. This provides data to define areas for improvement of health literature services. In addition to this data, other aspects analyzed included the national resources already available to deal with problems in health literature services, and WHO's past activities. These are summarized in your document under II: Situation Analysis. I would like to stop here for a moment to give you the opportunity to read through this material for yourselves, rather than having me talk about it.

As you have noted, the summary indicates that it would be beneficial at the highest level to develop a Regional Library system and to do this two Regional Libraries and a number of sub-libraries within this system and network will be established. The summary also indicates, for manpower, that the distribution and number of qualified and experienced health science librarians staff are inadequate. Thirdly, existing health science library staff do not have an adequate opportunity to maintain their technical competence, and have little or no communication with each other in their own or in libraries in other countries. This summarizes the key points in the situation at present.

Given these needs, a number of objectives were established, so as to deal with the problems. I should like to refer you to III in your document, "Specific Medium-term objectives and output targets" and recess this presentation again so that you may read these on your own.

With these specific objectives and targets in mind as a way of establishing what needs to be done, this leads us to a definition of how to achieve the objectives through

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specific activities of technical co-operation, resources and timing. This entire area of activities and so on are given in your document IV and the several attached tables, and I again would like to stop briefly so as to provide you with the opportunity to read and consider these on your own. I should like to direct you specific attention to target I.9 on page 9 of the tables, which as you will see, are the activities from 1978 to 1983 designed to follow up the training of level II librarians after this workshop.

This then summarizes the plan of this Region to meet the needs in a number of countries with respect to health literature services.

I should now like to take this opportunity to try to answer any questions you may have about this plan, before Dr Harvey begins his presentation on "Technological Developments and Biomedical Information Services and Systems".

ANNEX VII(a)

TECHNOLOGICAL DEVELOPMENTS IN BIOMEDICAL INFORMATION
SERVICES AND SYSTEMS: SOME NOTES
(OUTLINE OF A PRESENTATION BY DR JOHN HARVEY, AND MR ALI SINAI)

1. UNESCO

Documentation, Libraries and Archives Division, Paris

Unesco Bulletin for Libraries

UNISIST (Worldwide science and technology information system programme)
Co-ordinated natural science and technical information policy
UNISIST Newsletter
NATIS (National Information Systems)
Bibliographic control
Co-operation in establishing regional library schools and national documentation centres
UNESCO deposit libraries
Publication series

2. International Federation of Library Associations (IFLA)

New constitution
New dues schedule
New Journal
Developing Countries Committee
UBC (Universal Bibliographic Control)
Worldwide system for the exchange of bibliographic information
University Libraries Section
Hospital Libraries Subsection

3. Newsletter

UDC (Universal Decimal Classification)
Theory of Machine Techniques and Systems Committee
Planning for international networks
Publication programme

4. Medical Library Association, USA

Annual conferences
Regional chapters
International exchange programme
145 overseas members
Lists sent overseas first
343 000 pieces exchanged in 1973
Committee on International Co-operation
Fellowships
Library matching project
Bulletin and News, International Editor
Continuing education programme
Workshops

5. Library Association Medical Section, UK

Annual conference
Duplicate exchange programme co-ordinated by the Wellcome
Institute Library
Quarterly bulletin
Directory of Medical Libraries in the British Isles, Fourth Edition
British Council Medical Library
Book Lists
Publications
Recordings
Bibliographies
Hospital Libraries and Handicapped Readers Group
Standards
Book Trolley, quarterly

6. National Library of Medicine, USA

Largest Medical Library
BCN (National Biomedical Communication Network)
MEDLARS (Medical Literature Analysis and Retrieval Systems)
computerized file of journal article references
Interactive searching of 500 000 references to 1 000 journals
with on and off line printing
200 000 searches annually
20 000 requests filled to developing countries in 1974
9 overseas Medlars centres, including WHO, Geneva
MEDLINE (MEDLARS on line)
Provides MEDLARS data base on line to users
Teletype system giving access to computer data base
Medical on line bibliographic access service
Index Medicus and Arbidged Index Medicus
Index in printed form
CATLINE (Catalogue on Line)
Full bibliographic information for all catalogued material at NLM
SERLINE (Serial on line) Serial records for inter-library loan
Cataloguing in Publication Programme
Current Catalogue Catalogue cards
TOXLINE
Toxic substance information on the MEDLINE system
SDILINE
SDI on the MEDLINE system
All citations in Index Medicus
International exchange with 900 institutions
EL-480 Funds
Translate, publish bibliographic tools, critical reviews, directories,
monographs, handbooks

7. Health Science Library Systems and Consortia

Networks and their importance
NLM and MEDLINE
EDWCOM's Edunet

INIS, Vienna
Medical Library Centre of New York
SUNY Biomedical Communication Network

8. Health Science Library Education

USA pattern
Emphasizes medical bibliography and automation
One to three elective courses
Patterns in the Eastern Mediterranean Region

9. Possible Fourth International Congress of Medical Librarianship, 1979, Yugoslavia

Additional sources

Handbook on the International Exchange of Publications, Paris,
UNESCO, latest edition, Medicine, Section 14

Questions for Discussion:

Why does NLM wish to develop an international information network?

Can you compare MEDLINE
MEDLARS

Index Medicus
SDILINE?

Compare NLA and LA, Medical Section.

Compare IFLA with FID.

Which organizations discussed here provide grants for information projects?

Contrast British Council and Library Association activities.

What does Cataloguing in Publication mean and how can you use it?

Does any Eastern Mediterranean Region Library school provide formal health science librarianship courses?

Does an interlibrary loan programme exist among health science libraries in your country?

Have PL-480 funds been used in your country? If so, how?

Has your library used exchange programmes to build up its material collection? How?

Have you attended an IFLA or FID conference? If so, what did a health science librarian learn there?

In what way is the MEDLINE system available to your library?

What advantages would your library gain from an MLA matching library programme?

What information from this paper would be useful for a Level II health science librarian?

ANNEX VII(b)
TECHNOLOGICAL DEVELOPMENTS IN BIOMEDICAL INFORMATION SERVICES AND SYSTEMS¹

Name of the Service	Year of Inception	R.C.	Objective	Services Offered	Conditions for the use of service	Publications	Source of the information
EMISIST	1967	LIMSCO 7, Place de Fontenay 75700 Paris FRANCE	To provide a conceptual framework for the establishment of national and international scientific and technological information systems and services to facilitate access to world information resources and to create the necessary conditions for system inter-connection and compatibility.			EMISIST News-letter Vol. 1 No.1 Vol. 1 No.3	
National Library of Medicine U.S.A.	1936	670 Rockville Pike Bethesda, Maryland 20014, USA	The systematic organization of an active communication complex, building both National Library of Medicine and Network Information stores and developing the ability to select and transmit needed information rapidly.	1. Reproduction service 2. Supplying bibliographic and published information		Quarterly Bulletin Index Medicus Index to Dental Literature International Nursing Index	Quadrus, Inc. Encyclopedia of Library and Librarianship 3rd ed. 1964
MEDLARS	1950	National Library of Medicine U.S.A.	Production of a comprehensive bibliographic record in machine readable form to retrieve and disseminate the citations and information.	1. Data and bibliographic searches. 2. On-line computer printing	Available commercially		Library Trends Vol.23, July 1974 pp. 73-88
SEARCH (Systematic Retrieval of Chemicals)	1970	National Library of Medicine U.S.A. WHO Collaborating Centre	On-line bibliographic search, through retrieval through MEDLARS System. Access to COMPELL SPILLERS, MARINE and SEMLINE Enzime 50% of Medlars data base accessible	Search processing and hard copy supply	Available commercially \$50 member States and 3rd world countries (10 cents a minute) 10 cents per page off-line)		Annual Review of Information Science and Technology Vol. 7 LIST 1974, Vol. 4
TOXICOL	1973	National Library of Medicine U.S.A. Toxicology Program	To accept the interconnections between and among specialized stores of toxicologic published and unpublished information.	Access to TOXICOL Data Base. On-line information service for toxicology. Remote on-line access to data base	Subscription	Drug Interactions. An annotated bibliography with selected excerpts Vol. 1, 1967-1970	LIST 1974 Vol. 4 Bowker Annual
EMILARS	1973	National Library of Medicine U.S.A.	To give current services from the entire MEDLARS Data Base for the current month. Has citations from the forthcoming printed edition of Index Medicus.	EMI and current awareness services via SUN terminal Scanning new MEDLARS	EMILARS Network Participants		Special Libraries, Vol. 57 Jan. 1975 pp. 40-44 Library Trends Vol. 23, July 1974 pp. 73-83

¹Supplementary information contributed by Mr Ali Sinai

Name of the Service	Foundation	H.Q.	Objective	Services Offered	Conditions for the use of the service	Publications	Source of the Information
I.A.A.	1990	Congress Building, Tower, The Hague, Netherlands P.O. Box 3198	To provide co-operation in the field of librarianship and bibliography, to carry out investigations and make proposals concerning the international relations between libraries, library associations, bibliographers and other organized groups.	DOC, INDEXIST, cataloguing, loan and exchange, education, standardization, international cooperation and consulting	Membership 1. Full membership 2. Associate membership	IFLA News " Annual Directory " Communica-tion (LIBRA) International and International Library Associations A.L.A.	Encyclopedia of Library and Informa-tion Science Vol. 12 PMS, A.L.A. Handbook of National and International Library Associations A.L.A.
IFL	1995	7 A. Aveg, The Strand, Netherlands		Research Referral Centre, DOC, educa-tion and training, control of indexing languages in scienc and technology	Membership 1. Full member-ship 2. Associate membership a) elected b) honorary	IFL News Bulletin (H) IFL Yearbook Revue Interna-tionale de la Documentation E-Notes (Irreg.) Annual reports of Secretary General (A) Technical Journals for Industry Bibliography de la documentation et de la bibliothé-conomie (A) Extensions and con-nections to the IFL	Encyclopedia of Library and Informa-tion Science
Medical Library Association (M.L.A.)	1998	519 North Michigan Avenue, Chicago, Illinois 60611, USA	To foster medical librarians and maintain a duplicate exchange, international co-operation.	Education Exchange services for journals and books Information and advice	Membership	Bulletin of Medical Library Assoc. M.L.A. News Directories Handbooks	Encyclopedia of Library and Information Sci-ence Vol. 17 A.L.A. Handbook of Medical Library Prac-tice
British Library Association Medical Section	1877 Med.Sec. 1947	The British Library Association, 7 Ridgmount St, London W1E 7EJ EMRO/WHO	Education of medical librarians, promotion of the services of medical libraries in Britain.	Exchange of dupli-cate books and periodicals Library and ir-formation service Education and Training	Membership of M.L.A. and Medical Section	Quarterly Bulletin Vital notes (3 issues per year)	Annals, G.I.I. Handbook of Medical Library Practicy 3rd ed.

Name of the Service	Founda- tion	H.Q.	O b j e c t i v e	Services Offered	Conditions for the use of service	Publications	Source of the Information
W.H.O. International Exchange of Medical Literature	1948	W.H.O. Geneva, Switzerland	The Development of health information systems and services. The collection, analysis and presentation of health information as required by the regional office's ongoing programmes, medical computing activities.			Bulletin of W.H.O.	Enclosure, 1970 Medical Books Library for collectors, 1970
CATLINE	1965	National Library of Medicine U.S.A.	Data base containing full bibliographic catalogue since 1965. It contains about 130 000 citations. May be used for acquisitions, cataloguing, reference and interlibrary loans.				
SERLINE		National Library of Medicine U.S.A.	Data base of serial records containing bibliographic and locator information for about 5 600 current biomedical serial titles: used for identifying which serial titles are held by any of the 117 participating Medical Libraries.				
COMPFILE			(Complement File) contains the remaining 40% of Index Medicus Citations for the past 3 years - those not included in SERLINE				

FID

SERVICES OFFERED priorities in activities

A. FID Projects

1. Establishment of the FID Research Referral Centre.
2. Establishment of a Thesaurus for Documentation and information in several major languages.
3. UDC priorities: projects to do with UDC.
4. Organization of training courses (regional if possible) in regions where it is not yet done.
5. Publication of an International Journal.
6. Creation of an International Institution for advanced training of professional information handling and teaching personnel, preferably from developing countries.
7. Participation in the UNESCO-sponsored International Book Year.
8. Preparation of syllabuses for introductory courses on computers in documentation, publication of training guides and compendia.
9. Preparation of guidance for the education of documentation users in methods of efficient utilization of the results of research development and application.
10. Feasibility study concerning the organization of an International Information Year under the auspices of UNESCO.

B. Activities having to do with UNISIST becoming FID projects if financial support (from UNESCO or other sources) is available. Co-operation in studies to find out the ways and means for integration of international, regional or national information and documentation services into a world-wide network and more specifically:

1. Development of better tools for control and conversion of natural and indexing languages in science and technology.
2. Pilot study in co-operation with CODATA, to investigate the functional interrelationship of numerical data centres with those handling non-numerical data.
3. Development and publication of international minimum standards and curricula bearing in mind the different requirements of the various developing countries.
4. Elaboration of principles of handling factual and other non-numerical data compilation, processing, storage, search, retrieval and transmission.

C. Ongoing activities of FID

1. Updating of the UDC.
2. Development of principles for an educational policy regarding the training of documentalists and information scientists.
3. FID-sponsored international or regional documentation training courses in Latin America, French, English-speaking Africa.
4. Co-operation with international and national bodies in the evaluation of research results in information work.
5. Establishment of an internationally agreed terminology in the information field.
6. Preparation and publication of concordances between UDC and Thesauri.

7. Surveys of information and documentation services of international, regional and national scope.
8. Publication of further volumes of Technical Journals for Industry.

Significant areas of activity

Primary and secondary publication
Linguistic problems
Document reproduction and copyright
Classification research
UDC
Selection and retrieval
Specialized Information Centres
Training of documentalists
Standardization
Bibliography and abstracting of documentation
Aid to less advanced areas.

BOOKS

Advances in Librarianship
New York: Academic Press
Vols. 1, 3, 4, 5.

Annual Review of Information Science and Technology
Washington: ASIS
Vol. 8

Aslib Directory, Vol.1
Information Sources in Science, Technology and Commerce
London: Aslib 1968

The Bowker Annual of Library and Book Trade Information
19th Edition 1974
New York: R.R. Bowker Company 1974

British Library Association
Directory of Medical Libraries in the British Isles
London: The Library Association, 1969

Encyclopaedia of Library and Information Science
Edited by Allen Kent and others
Vols. 2, 17

FANG, J.R. & Songe, A.H.
Handbook of National and International Library Associations
Chicago: American Library Association, 1973

Handbook of Medical Library Practice
Edited by Gertrude L. Annan, Jacqueline W. Felter
3rd Edition
Chicago: Medical Library Association, 1970

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EM/HMD/384
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WHO EMRO

IFLA
IFLA Annual: Munchen, Ver lag Dokumentation

International Library Directory: A World Directory of Libraries
3rd Edition. Edited by A.P. Wales, 1969/70
London A.P. Wales

Landau, Thomas
Encyclopaedia of Librarianship. 3rd Edition.
New York: Hafner Publishing Company, 1968

LIST: Library and Information Services Today.
An international registry of research and innovation.
Michigan, Detroit, Gale Research Company
Vols. 2,4

Library of Congress
Annual Report.
Washington, Library of Congress.

The MEDLARS Story at the National Library of Medicine
U.S. Department of Health Education and Welfare:
Public Health Service, 1963

World Health Organization
Publications of the World Health Organization
1963-1967: A bibliography
Geneva, WHO, 1969

Thornton, John L.
Medical books, libraries and collectors: A study of
bibliography and the book trade in relation to the
Medical Sciences. 2nd Edition
London, Andre Deutsch, 1966.

INDEXES, JOURNALS AND ABSTRACTS

Bulletin of Medical Library Association
FID News Bulletin
Federation Proceedings
Information Storage and Retrieval
International Forum on Information and Documentation
Library and Information Science Abstract, LISA
Library Literature
Library Trends
Special Libraries
Wilson Library Bulletin

ANNEX VIII(a)

PRINCIPLES OF LEARNING

A learning experience should be designed so that the Learner.....

1. Has interest in learning
2. Is exposed to variety of experiences
3. Learns in a friendly atmosphere
4. Exchanges experiences with others
5. Learns by trial and error
6. Has incentives
7. Is emotionally involved in learning experiences
8. Has a model to follow
9. Identifies with his group
10. Is evaluated in a good manner
11. Applies his knowledge to practical matters
12. Has joy of success
13. Works hard
14. Has self-confidence
15. Becomes independent
16. Has useful experience
17. Has self-confidence/satisfaction
18. Does something good for society
19. Will learn new ideas, be updated
20. Becomes more sociable
21. Knows why he is learning and what
22. Knows environment
23. Understands what is involved in learning process (methods)
24. Can deal with difficulties
25. Can interact with others
26. Is active in learning process
27. Builds on previous experiences
28. Becomes a model
29. Obtains a reward
30. Extends knowledge through many methods/techniques
31. Becomes careful
32. Understands people
33. Overcomes ignorance of unknown
34. Obtains pleasure
35. Learns skills
36. Receives continuing evaluation

ANNEX VIII(b)
CHARACTERISTICS/ATTITUDES

1. Good appearance/smiling face
2. Efficiency
3. Competent (what/why/when)
4. Active
5. Friendly manner
6. Enthusiastic in learning/updating
7. Follows administrative rules/procedures/channels
8. Common sense/flexible
9. Well educated
10. Learns from errors
11. Tactful
12. Strong personality
13. Consistent in behaviour
14. Intelligent
15. Interested in updating knowledge
16. Ability to communicate
17. Persistent
18. Hard worker
19. Learns new knowledge
20. Adaptable to situation changes
21. Patient
22. Logical in thinking
23. Even tempered
24. Thorough.

ANNEX VIII(c)

TACTFUL

GOs

SOBs

Polite)	
Flexible)	
Patient)	Offers chair when needed
Considerate)	Deals politely with patrons in difficult situations
Understanding)	In dealing with employee problems, shows fairness, impartiality in decision with employee
Strong common sense)	In dealing with individual requests when busy/ pressured, offers satisfactory alternative
Punctual)	
Pleasant)	Given requests outside policy, explains and convinces requestor of situation
Tolerant)	
Strong personality)	In dealing with complaints, listens carefully and sympathizes and finds solution which is explained
Quick response)	Provides help even when not requested, putting patron at ease
Serious)	
Takes decision)	Given user requests, uses training opportunity without embarrassing patron.
Impressive)	
Sense of responsibility)	
Sensitive)	
Accurate)	
Good taste)	
Sense of humour)	
Modest)	
Happy/cheerful)	

ANNEX VIII(d)

IMPORTANT STEPS IN GOOD DEMONSTRATION
 A CHECKLIST

YES = Y

NO = N

SCALE: 1 = POOR; 2 = SATISFACTORY; 3 = GOOD; 4 = EXCELLENT; OR YES/NO

<u>PRESENTATION PROCESS</u>		<u>EXAMPLES</u>			
1.	PREPARES NECESSARY MATERIALS IN ADVANCE	YES			NO
2.	STATE THE PURPOSE/SUBJECT	1	2	3	4
3.	INTRODUCES SUBJECT	YES			NO
4.	CHECKS PREVIOUS KNOWLEDGE	YES			NO
5.	PREPARES/GIVES CHECKLIST	YES			NO
6.	PROVIDES OPPORTUNITY TO ASK QUESTIONS	1	2	3	4
7.	SHOWS PATIENCE	1	2	3	4
8.	USES SIMPLE EXPLANATION; TERMS	1	2	3	4
9.	USES PROPER SEQUENCE	1	2	3	4
10.	ASKS SIMPLE QUESTIONS TO CHECK UNDERSTANDING	1	2	3	4
11.	AVOIDS UNNECESSARY REPETITION	YES			NO
12.	MAKES SUFFICIENT TIME AVAILABLE	YES			NO
13.	SPEAKS SLOWLY, CLEARLY	YES			NO
14.	DEALS WITH ONE SUBJECT AT TIME	YES			NO
15.	REPEATS INSTRUCTIONS AS NECESSARY	1	2	3	4
16.	SUMMARIZES PERIODICALLY	YES			NO
17.	PROVIDES OPPORTUNITY FOR PRACTICE	YES			NO
18.	STICKS TO TIME LIMIT	YES			NO
19.	SHOWS GOOD RELATION WITH STUDENT	YES			NO

TOTAL SCORES =

ANNEX VIII(e)

IMPORTANT STEPS IN GOOD LECTURE - A CHECKLIST

1. Shows good relation with student
2. State the purpose/subject
3. Uses simple explanation; terms
4. Uses proper sequence
5. Introduces subject
6. Avoids unnecessary repetition
7. Makes sufficient time available
8. Prepares/gives checklist
9. Asks simple questions to check understanding
10. Prepares necessary materials in advance
11. Speaks slowly, clearly
12. Deals with one subject at time
13. Summarizes periodically
14. Checks previous knowledge
15. Provides opportunity to ask questions
16. Shows patience
17. Provides opportunity for practice
18. Repeats instructions as necessary
19. Sticks to time limit.

ANNEX IX(a)

SOME DEFINITIONS OF LIBRARY PERSONNEL

1. LIBRARIAN (first level)

Qualifications: A Librarian usually has a formal recognized qualification in library science at the Diploma Bachelor's or higher level.

Duties and responsibilities: These often include administration and also supervision of other staff members.

2. ASSISTANT LIBRARIAN (second level)

Qualifications: At a minimum an Assistant Librarian holds a high school certificate. The Assistant Librarian has usually received library science education with less than a formal recognized qualification and/or has library work experience.

Duties and responsibilities: An Assistant Librarian may be in charge of a library.

3. LIBRARY CLERKS

Library clerks are staff who perform repetitive or routine duties under regular supervision.

ANNEX IX(b)

GROUP-DERIVED DEFINITION OF
ASSISTANT HEALTH SCIENCE LIBRARIAN

1. Minimum general education: The Assistant Health Science Librarian will hold at a minimum, a high school certificate, or could be a graduate of a college, institute or similar institution, preferably with subject background in the life sciences.
2. Duties/responsibilities: The Assistant Health Science Librarian will generally assist the librarian. He/she could act as a head of a department in a health sciences library or be in charge of a small library such as in an institute or hospital, in certain cases.
3. Library Science training, education or experience: The Assistant Health Science Librarian has usually received some form of library science education, with or without formal library qualification, at less than bachelor level and usually has some work experience.

ANNEX X(a)

LOCAL/NATIONAL SUB-REGIONAL PLAN FOR TRAINING
ASSISTANT (LEVEL II) HEALTH SCIENCE LIBRARIANS
(An outline)

I. PREPARATIONS

A. Determining the needs for training assistant health science librarians
"How would you determine how many assistant health science librarians are needed?"

1. How many staff are there already working in health science libraries who could benefit from a training programme?
.....
2. How many extra staff at the assistant librarian (level II) are required by the existing health science libraries?
 - (a) At present.....
 - (b) during the next two years (1978-1979).....
 - (c) during the following three years (1980-1982).....
3. Can you estimate how many new health science libraries might be created in your country during the next five years (1978-1982)?
.....
4. How many assistant health science librarians (level II) might be required for the new libraries referred to in A.3 above?
.....
5. If you do not know the answers to the above questions (A.1-A.4), what suggestions do you have for obtaining them? who would you ask.
.....
.....
.....
.....

B. Administration

1. Whose authorization(s) to conduct a training programme would be required?
.....
2. What other institution(s) and/or persons would need to be kept informed?
.....
.....
3. Which special local obstacles or difficulties are considered important?
.....
.....
.....

4. What could you do to overcome each difficulty or obstacle?
.....
.....
.....

C. What other types of information do you require before completing your plans? e.g. would you need to ask the institutions in your country.

- (a) whether they will guarantee the future employment of staff released for training, and
- (b) for how much time per week each trainee could be relieved of his normal duties for a work-study programme?
.....
.....
.....
.....

D. What other types of co-operation would you need to carry out the training programme?

(a) Would you like more discussion on teaching methods and/or learning activities, etc.?
.....
.....
.....
.....

(b) Would you want further co-operation from WHO?

- (i) None
- (ii) Follow-up letters with your Government
- (iii) Model questionnaire to determine further the needs
- (iv) Translation assistance for manuals
- (v) Limited supplies (please specify).....
.....
.....
- (vi) Other (please specify)
.....
.....
.....

II. THE PLAN

E. Timing

1. When could the training programme begin?
.....
2. What period of time should be covered by a first trial phase for say, the first two groups?
.....
.....

F. Type and length of training

In view of the local situation and needs, do you plan for:

- 1. In-service training, over a certain length of time.
e.g. four months, six months, one year? even longer period?
.....
- 2. A special work-study programme, either part-time or full-time for limited periods, e.g. one or two months
.....
- 3. A formal full-time course, located for example in a Library School or University
.....

G. Language

Would you do the training in English? or some other language?
.....(please state)

H. Under present circumstances, which precise location(s) [i.e. town(s), institution(s)] do you think would be suitable places for training?
.....
.....

I. How many participants should attend the "classes" for each different type of training that you are planning? List all cases
(a).....
(b).....
(c).....

This could result in _____ groups per year.

J. Resources

(a) Which extra learning resources, over and above those already available in your setting, do you think you would require? (e.g. self-instructional units, audio-visual aids, textbooks, etc.)
.....
.....
.....

(b) What do you think would be their approximate estimated cost?
.....

(c) Are there any professional health science librarians (level I) in your country who are are not attending this Regional Workshop but who could probably agree to assist you in the running of your national training programme for assistant health science librarians (level II)?.....

If so, please list suggested names:
.....
.....
.....
.....

ANNEX X(b)

IRAQ - LOCAL/NATIONAL PLAN

I. Preparation

A) Determining the needs for training health science librarians:

1. Conduct a survey for existing libraries to find out how many staff there are already working in medical libraries who could benefit from training programmes now and in the near future.
2. Contact authorities and conduct a survey to find out how many libraries might be created in order to determine how many assistant librarians (level II) might be required for the new libraries.

B) Administration

1. Get authorization from Minister of Higher Education and Research to whom all medical colleges belong. Get authorization from Minister of Health to whom all hospital libraries belong.
2. Get full support from the President of the University of Baghdad and from the Dean of the Medical College.

3. Local Obstacles

- Shortage of fully trained professional medical librarians
- Lack of adequate funds
- Unsuitable accommodation for readers and books as well as lack of space.

4. Overcome difficulties

Instead of having separate libraries of poor quality, it is suggested to have a medical centre library which will provide high quality services to be shared by all.

Resources

- Provision of first level medical librarians to conduct types of training.
- Provision of a designed curriculum.
- Provision of adequate reference material and funds to cover expenses.
- Provision of a suitable place, for library training.

II. The Plan

Types of Training

1. In-service training: Provide some training for first level librarians already working at the College of Medicine Library to assist in the training of assistant librarians.

2. Start a course of in-service training with four assistants with library qualifications already working in medical libraries in Baghdad.

Time: Possible to start in November 1977.

Duration: Part-time - one day a week for six months.

Curriculum: Use manual prepared at the workshop,
Keep Faculty daily diary to record follow-up of programme.

Language: English and Arabic

Location: College of Medicine Library, University of Baghdad, it already serves as the major resource collection for all medical colleges in the country.

3. Formal full-time course

1. Introducing an extra course in medical librarianship at the Post-graduate School of Library Science and Documentation at the University of Baghdad. Possible to start September 1977.
2. Introducing an extra course in medical librarianship at the School of Librarianship, Mustansiriyah University. Possible to start September 1977.

Co-operation of WHO

Welcome the help and assistance of WHO.

1. Provision and support translation of manual.
2. Provision of fellowship for first level medical librarians.
3. To establish and develop a Regional Medical Library in Baghdad.
4. Follow-up of programme of training assistant librarians level II.

(vi)	<u>Be able to demonstrate knowledge and/or skills in respect of new and current technology and approaches to the application of health sciences library science in the Eastern Mediterranean Region;</u>	1	2	3	4	5	=	2.1
(vii)	<u>Have defined a plan of action for training of level II librarians in their country and/or sub-region.</u>	1	2	3	4	5	=	2.13
2.	Circle (0) as in Item 1. above, the <u>extent to which you feel each principles of learning below was used in the workshop.</u>							
1.	Is an active participant, not a passive receiver.	1	2	3	4	5	=	1.66
2.	Is emotionally involved in his learning.	1	2	3	4	5	=	1.46
3.	Will see the relationship between planned learning activities and specified goals.	1	2	3	4	5	=	1.76
4.	Is rewarded for success rather than punished for failure.	1	2	3	4	5	=	1.46
5.	Experiences immediate satisfaction from correctly applying what is learned.	1	2	3	4	5	=	1.26
6.	Participates in setting goals and making decisions about his own learning.	1	2	3	4	5	=	1.32
7.	Can go from specific examples to applicable generalization.	1	2	3	4	5	=	1.26
8.	Receives immediate feedback about performance.	1	2	3	4	5	=	1.84
9.	Can deal with conflicts and frustrations that inevitably arise in the course of learning.	1	2	3	4	5	=	1.61
10.	Can observe skills to be learned being correctly performed - has a model - before attempting them himself.	1	2	3	4	5	=	1.84
11.	Knows in advance <u>what</u> he is expected to learn and <u>why</u> it is relevant for him to learn it.	1	2	3	4	5	=	1.76
12.	Can periodically practise what he has learned.	1	2	3	4	5	=	1.38
13.	Has opportunities to learn via multiple modes of instruction, e.g. lecture, small group work, media, individual work, independent study.	1	2	3	4	5	=	1.84
14.	Can learn from multiple resources, e.g. peers, teachers, materials, media, practical experience.	1	2	3	4	5	=	1.53

15.	Can demonstrate what he has learned in different ways rather than in just one way.	1	2	3	4	5	=	1.76
16.	Can see the relationship between how he is evaluated and the goals of instruction.	1	2	3	4	5	=	1.84
17.	is encouraged to explore alternatives.	1	2	3	4	5	=	1.69
18.	Has the opportunity to be evaluated for the purpose of feedback as well as certification.	1	2	3	4	5	=	1.61
19.	Acquires a backlog of success in order to develop tolerance for inevitable failures.	1	2	3	4	5	=	2.07

[NOTE: For results of below evaluation, please see Section IV.C in body of report.]

3. Duration - In my opinion the number of working days for the workshop was:

[/ too few = 14 or enough = 1 /- / too many = 0

How could you change (increase or decrease) the number of working days?

4. If I were to attend such a workshop again, I would make the following changes:

5. Which activities do you feel were very useful?

6. Which activities do you feel were not useful? (or could be improved?)

7. In my opinion, the social programme was:

8. My overall feelings and opinion about attending this workshop are:
[Please comment as you wish on any aspect.]

ANNEX XII

REFERENCES

1. Characteristics of Desirable Learning Activities
2. Group Dynamics, Verbal Interaction Data Record
3. Five Stages of Group Life
4. Checklist on Principles of Learning
5. Systems Approach
6. Classification of Educational Objectives
7. Objectives of Training Programmes
8. Let's Write an Objective
9. Learning Examinations - Behavioural Objectives
10. Illustrative Verbs for Stating Behavioural Objectives
11. Objectives and Domains
12. Checklist for Selecting Evaluation Techniques
13. Relationship of Evaluation to Objectives
14. Description of Advantages and Disadvantages of Examination Techniques
15. Characteristics of a Good Examination
16. Common Pitfalls in Construction of Multiple Choice Questions
17. Checklist for Multiple Choice Items
18. Steps for Construction of Checklist/Rating Scale for Performance Tests
19. A checklist