Health and Family Planning System Design
Action Research Project
HIPH, University of Alexandria, Egypt

A PROGRESS REPORT ON A STUDY TO STRENGTHEN AND IMPROVE NATIONAL TRAINING EFFORTS USING COST-AND-TIME-EFFECTIVE EGYPTIAN INNOVATIONS

A Report Prepared By:
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C O N T E N T S

ABBREVIATIONS

APHA	American Public Health Association
FH	Family Health
GOE	Government of Egypt
HIPH/FH	High Institute of Public Health, Department of Family Health
ISSP	Integrated Social Services Project
MCH	Maternal Child Health
NH	Maternal Health
MSA	Ministry of Social Affairs
PH	Public Health
PI	Programmed Instruction
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

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The purpose of the assignment was to follow up the February and March 1980 APHA consultancy to the High Institute of Public Health (HIPH), Alexandria, Egypt, AID/DSPEC-0053 (see APHA report for February 1-March 7, 1980).

The protocol for evaluating the modules developed by the faculty of the HIPH was one of the main products of the August-September consultancy. Dr. Naila Amer was the co-principal investigator and, under the direction of Dr. A.F. El-Sherbini, supervised the evaluation. Dr. Amer made a significant contribution to the development of the protocol. Dr. Amer was also one of two workshop participants to complete a self-instructional module, "Evaluation of Family Planning Services for Director of Family Planning Centres." This module was pretested with 27 medical doctors during the week of September 20 at the High Institute of Public Health.

Dr. Soheir A. Mekheimar completed the module know as "Fetal Heart Sound" and is at this time preparing another module, "IUDs and Oral Contraceptives for Health Workers." A number of additional modules are in various stages of completion. However, the study cannot proceed until at least six modules are ready for evaluation. There is every indication that these modules are forthcoming.

The cooperation of Dr. A.F. El-Sherbini, chairman of the Department of Family Health and principal investigator of this study, has been the most important single factor ensuring the continuation and completion of these efforts. Dr. El-Sherbini has given the Innovation in Training, Programmed Learning Study top priority and has assigned quality personnel who are more than equal to the task.

In addition to the evaluation, training innovations were disseminated to other health and family planning systems with the assistance and guidance of USAID/Cairo; Mr. Thomas Reese, III, population officer; Ms. Laura Slobey, population officer; Dr. Rose Britanak, public health adviser; Mrs. Laila Stino, project officer; and Mr. Doug Palmer, health adviser.

Meetings were arranged with Dr. Helmy El Bermawy, under-secretary of health, Ministry of Health, and staff of the strengthening of Rural Health Services Project, Ministry of Health, Cairo, and the Integrated Social Services Project (ISSP), Ministry of Social Affairs (MSA).

In the latter instance, several meetings were held in Tanta and Cairo to plan the fieldtests of the modules produced at the HIPH. An important addition was the inclusion of social workers as trainees for local community health and family planning programs.

The Ministry of Social Affairs Integrated Project requested a proposal to develop MSA training staff at the Tanta project and Assiut in a pilot project using the HIPH model. Dr. Hussein A. El Dereiny, professor of educational psychology, Al Azhar University, was assigned the task of developing the proposal. He was assisted by the APHA consultant.

The first workshop to be held under the auspices of the Ministry of Social Affairs is expected to be held in February 1981, as outlined in the proposal prepared by Dr. Hussein.

The expectation is that the fieldtesting of the HIPH will be integrated and the MSA training project initiated in early 1981 under a consultancy funded by AID/NE-G-1562 UNC (Project No. 263-0020).

REVIEW OF ACTIVITIES

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It is essential that the reader become familiar with the first interim report, which covered the APHA consultant's activities during February and March 1980. That document reviews the origins of the project and describes the work plan. The timephasing(see Exhibit A) in the report covers the initial activities of this project. This assignment (August - October 1980) covers Items 1-7, which are illustrated in the flow chart of the work plan on page 29 of the Evaluation Protocol, Appendix E. Some items are described below.

Item 1: Revise Modules and Revise Questionnaires

The modules which will be tested in the main study were reviewed and revised during this consultancy. The priority assigned to this project is sufficient incentive to complete the modules in the foreseeable future. Incentives were devised to allow HIPH instructional designers to benefit by receiving payment for translating the modules into Arabic. (A finding in the administration of the pretest of one of the completed modules was the importance of using Arabic, especially with certain key terms, with many of the trainees.)

The questionnaire for the evaluation was significantly revised (see "Factors Related to Learning in Programmed Instruction," September 1980, page 18, in Studies for Training Health Workers for Community-Based Health in Egypt, Appendix E). The original questionnaire was substantially longer and was more highly focused on family planning.

The reduction in size of this instrument was one result of the elimination of the psychological tests, which are not essential to the purposes of this project.

Item 2: Site Selection

One of the goals of this project is to affect the training systems related to community health nationwide. Careful integration with other existing projects has been consistently emphasized as one important means to achieve this goal. The visibility of the High Institute of Public Health as a institution in the forefront of movements to design training innovations which seeks cost-and-time-effective methods has been enhanced by this APHA project. Dr. Ahmed El-Sherbini has poineered a variety of training approaches in an effort to meet the enormous health manpower needs in Egypt for the delivery of community-based family health. Currently, the emphasis on decentralized training coincides with the need to locate training sites at other than traditional, fixed classrooms, universities, and

Exhibit A

HIGH INSTITUTE OF PUBLIC HEALTH WORK PLAN FOR PROGRAMMED INSTRUCTION TRAINING AND HEALTH TRAINING SYSTEM PROJECT

	September	October	November	December	January	February	March
1. Revise Modules Revise Questionnaire	xxxx	xxxx xxxx					
2. Select Sites	xxxx						
3. Pretest 8 Modules and Questionnaires		xxxx xxxx					
4. Revise Modules and Questionnaires			xx				
5. Duplicate Modules			x				
6. Select Training Supervisors	x						
7. Recruit and Train Interviewers		xx	xx				
8. Administration of 8 Modules			xx	xxxx			
9. Interviewing and Data-Gathering			xx	xxxx			
10. Data Processing					xxxx	xxxx	xxxx
11. Data Analysis Coding					xxxx	xxxx xxxx	xxxx xxxx
12. Preparation of Final Report							xxxx
13. Planning for Possible 2-3 Year Larger Project							xx x
14. One-Day Conference to Disseminate Results of Study							

other educational institutions. The Ministry of Social Affairs Integrated Social Services Project is located in Tanta, Cairo, and Assuit; these areas have been identified as logical testing sites for the evaluation of the training materials developed during this APHA project. These sites are in addition to the HIPH sites in Alexandria and Abbis. Several meetings in Tanta, Cairo, and the United States have facilitated the development by the HIPH and MSA/ISSP projects of common strategies to integrate the two projects. It has been noted that the MSA/ISSP project is contemplating a similar training materials development project that will allow the consultant to assist both projects during workshops held in Egypt in February and March 1981.

Items 3 and 4: Pretest and Revise Modules

A second revision of the modules based on pretesting with small samples (6-12 typical trainees) was initiated. The initial pretest for the "Module on Evaluation of Family Planning Services for Directors of Family Planning Centers" was conducted with 26 trainees who attended a HIPH workshop in September 1980 (one of three workshops attended by the APHA consultant). The percentage of knowledge gained in that pretest is shown in Table 1 in the right-hand column.

It has been noted that the learning gain of the trainees was affected by the exclusive use of English in the modules. In spite of this handicap, the learning gain is impressive and is expected to increase significantly when the translation is completed.

Item 5: Duplication of Modules

The process of duplicating the modules after making revisions based on the pretest (and following a validation of content by recognized content experts) has been arranged. The budget to facilitate the duplication is attached as Appendix M. This budget was approved by USAID/Cairo within the One America contract. It has been noted that the APHA program is not an integral component of the HIPH/One America program. The APHA effort has most likely contributed to the achievement of the training objectives, at least in part. However, it is too early to determine how beneficial this effort has been.

The APHA consultant stressed the necessity of duplicating the modules in a low-cost, flexible format that permits additional revisions based on trainee feedback.

Table 1

MODULE ON EVALUATION

No.	Pretest Score	Posttest Score	Knowledge Gain
1	50	100	50%
2	100	70	-30%
3	40	80	40%
4	40	70	30%
5	50	70	20%
6	20	70	50%
7	20	60	40%
8	40	70	30%
9	30	80	50%
10	50	100	50%
11	70	90	20%
12	30	80	50%
13	50	50	0%
14	20	80	60%
15	40	100	60%
16	60	90	30%
17	40	100	60%
18	50	100	50%
19	40	90	50%
20	50	100	50%
21	60	100	40%
22	30	30	0%
23	40	60	20%
24	50	80	30%
25	30	90	60%
26	20	70	50%

Item 6: Training and Supervisor Selection

The document in Appendix E ("Protocol, Schedule and Instruments for Health and Family Planning Training Study") was revised in daily meetings with Dr. Naila Ames, Dr. Mofida Kamal, and Dr. Ahmed El Sherbini. Drs. Amer and Kamal were appointed as co-research associates to plan and conduct the evaluation of the programmed learning training system. This evaluation is carefully outlined in Appendix E. The recruitment and training of interviewers (Item 7) and other temporary personnel is also described in Appendix E.

Findings

The APHA consultant was impressed by the quality of the HIPH staff assigned to the project as research associates and instructional designers. It was impossible to assign this project a higher priority than other activities in the interim between the APHA consultant's visits. However, it is now apparent to all concerned that the APHA training component is not an essential facet of the objectives specified in the AID/NE-C-1673 One America contract, which was evaluated in November 1980. It is too early to determine the benefits of this APHA to upgrade training methods, although the effort may be recognized as a strategic means to achieve the outcomes of the larger AID-supported activity, which is also known as the Abbis-2 Field Training/ Health Services/Research Project.

The initial summary of the second interim report stresses the efforts to integrate the APHA consultancy for improved training with other AID-funded projects that support health activities in Egypt. The APHA consultant welcomed the leadership and direction offered by USAID/Cairo health and population personnel to give maximum visibility to this project. Training methods which emphasize the use of indigenously created materials are urgently needed in these various health programs. The cost-effectiveness and time-effectiveness of in-service training emphasizing community health and family planning are obvious additional assets of APHA's approach.

The content of the training modules is solely a decision of the Egyptian training leaders who are directing the APHA project. However, a survey conducted jointly by the Government of Egypt (GOE) State Information Service and the Social Development Center of the University of Chicago has enabled health leaders to identify family planning as an important area for future training activity. The APHA consultant sought to emphasize this area of need by using this survey in several meetings. The approach was always offered as an example of the identification of a health priority by the GOE, an effort that can be facilitated by developing health training systems at the HIPH with the cooperation of the APHA.

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* See Studies for Training Health Workers for Community-Based Health in Egypt.

Appendix A

OFFICIALS CONTACTED

Appendix A

OFFICIALS CONTACTED

The following key contacts provided invaluable insight and professional and perscnal assistance, and made possible the performance of the duties of this consultancy.

HIPH Department of Family Health

Dr. Ahmed F. El-Sherbini, Chairman
Dr. Sawsan Fahmy, Deputy Chairman
Dr. Emad Eid, Assistant Professor
Dr. Enaya Abdel Kaker, Management Training Coordinator
Dr. Soheir Mekhemar, Lecturer

HIPH Department of Health Administration

Dr. Naila-Amer, Senior Lecturer, Co-principal Investigator

USAID/Cairo

Dr. Merrill M. Shutt, Chief, Health and Family Planning
Thomas H. Reese III, Population Officer
Laura Slobey, Project Monitor, Health and Population Officer
Doug Palmer, Health Adviser
Mahlon D. Stuart, Acting Financial Analyst
Dr. Rose Britanak, Health Officer

AID/Washington

Lenni Kangas, Director, NE/TECH
Marschal Rothe, Program Officer, NE/TECH
William Oldham, AID/TECH

Rural Health Planning Project, Ministry of Health

Dr. Arnfried Kielmann, Chief of Party
Sharon Russell, Westinghouse

APHA

Barry Karlin
Suzanne Olds
Paul Burgess

One America

Dr. Brooks Ryder, Chief of Party
Dr. Abdel Omran, Consultant

Ministry of Social Affairs Integrated Social Services Project, University of North Carolina

Dr. John B. Turner, Chief of Party
Dr. George Gamble, Director
Dr. Mostafa El Moslemany, Dean of Social Work, University of Alexandria, Egypt; Consultant to the Project

Tanta/Ministry of Social Affairs

Mr. Mohamed Abou Shahba, Director-General

Research and Planning Section

Mr. Attia El Shafei, Head of Section
Mr. Ahmed El Sokary, Assistant
Mr. Mohamed Selim, Assistant

Training Section

Mr. Fawzy Abdel Moneim, Head of Section
Mr. Mansour Mahfouz; formerly, Assistant; currently, Head of Section

Information and Learning Resource Center

Mr. Mohammed Saad Abdel Khalek, Head of Section
Mr. Samir Hindy, Assistant
Mr. Mahfouz M. Mostafa, Technical Assistant
Ms. Wafaa El Kasaby, Librarian

Manager and Financial Section

Mr. Botros Milad Botros, Head of Section

Other

Mohamed Nabil Abdel Rahman, Director,
Health District of Sharkia, Zagazig

Awatif Mahmoud Amin, Director, Family Planning,
Cairo Governorate Health Department

Maher Habib Boulos, Director, Preventive Medicine,
Health Department, Sharkia Ministry of Health

Ahmed Ebrahin El-Derri, Director, Rural Health,
Sharkia Health Department, Sharkia Ministry of Health

Kamal Hafez El-Bagoury, Head, Public Opinion,
Department Minia Information Services

Ismail Mohamed Ibrahin Gharbia, Assistant to Rural Health Director
at Dakahlia, Health Department of Dakahlia Ministry of Health, Egypt

Fawzia Fahim Hassan, General Director, Training Institute of Television
and Broadcasting, Radio and Television Organization, Cairo

Mahmoud Ibrahim Ismail, Information Director, Upper Egypt, Egyptian SIS

Hoda Abdel Hamid Jahim, Director-General,
Department of Follow-up and Supervision, Ministry of Health, Egypt

Ehsan Ahmed Kassim, Researcher, Egyptian SIS

Samja Mohamed Sadek, Director-General, Radio Cairo,
Egyptian State Broadcasting Organization

Abdel Maksoud Mohamed Zakaria, Lecturer, Sociology Department,
Menia University

Dr. Hussein A. El Dereiny, Department of Educational Psychology,
College of Education, Al Azhar University, Madinat Nasr, Egypt

Miss Zeinab Mohamed El Mahdy, Director, Dar Ismail Nursing School,
Alexandria, Egypt

Dr. Farouk Munir, Director of Training, Strengthening Rural
Health Services Project, Ministry of Health, Cairo

Dr. Arnfried Kielmann, Chief of Party, Westinghouse Health Systems,
Cairo

Appendix B

REGISTRATION LIST

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Name	Title	Module Subject Area	Address
Dr. Emad Eid MB, BCH, DPH	Assistant Professor, Department of Family Health	Oral Rehydration (for Health Workers)	HIPH
Dr. Soheir M. Mekhemar Dr. PH, Dip. Hosp. Adm.	Lecturer, Family Health	IUDs and Oral Contraceptives (for Health Workers)	HIPH
Dr. Ahmed S. Wasfy MD, DCH, Dr. PH	Lecturer, Maternal Health	Malnutrition Among School Children (for Health Workers)	HIPH
Dr. Ibrahim El-Kerdany MD, MPH, Dr. PH	Lecturer, Maternal Health	Other Contraceptives (for Health Workers)	HIPH
Dr. Naila Amer MD, MPH, Dr. PH	Lecturer, Public Health Administration	Evaluation of FP Services (for Directors of FP Centers)	HIPH
Dr. Hanna Ismail, Ph.D. Pravour, Food Chemistry, Bristol University, UK	Lecturer	Breastfeeding (for Health Workers)	HIPH
Dr. Kamilia Moustafha MPH, Dr. PH	Lecturer, Family Health	Malnutrition Anemia (for Health Workers)	HIPH
Dr. Abla Ibrahim, MB, CH, B	Instructor, Department of Family Health	Care of the Elderly (for Health Workers)	HIPH

Appendix C

PROGRAMMED INSTRUCTION
AND
PROGRAMMED LEARNING
(In Arabic)

التعليم المبرمـــــج
و
التعلم المبرمـــــج

PROGRAMMED INSTRUCTION
AND
PROGRAMMED LEARNING

كتيّب للمدربين الصحيين فـى مصـــر

مارس ١٩٨٠

المستحدث في تصميم أنظمة التدريب

أ- التعلم على مدى الحياة ضرورة مطلقة لا ولئك الذين يتولون الحاجات الكبرى للصحة العامة. ولا يصدق ذلك على مستوى الفرد فحسب ولكنه يصدق أيضا على مستوى المجتمع. فأى مجتمع يواجه بأزمة عامة سوف يحاول اكتساب المهارات اللازمة لمواجهة هذه المشاكل والعثور على المهارات اللازمة لحلها عن طريق التدريب الرسمى وغير الرسمى لاعضاء المجتمع. وكثيرا ما تكون الحاجة الى التدريب ذات اولوية أولى فى أزمنة الطوارئ. والحرب معروفة لنا تماما فى مصر خاصه وقد ضحينا كثيرا للدفاع عن امتنا. ومن الدروس المستفادة من تلك الأزمنة الصعبة أنه يمكن لأمتنا عند مواجهتها بأحد التحديات أن تدرب القوى العاملة بأساليب متنوعة ومستحدثة من حيث الوقت والتكلفة. فلنعلن النضال الآن ضد الأمراض التى يمكن الوقاية منها وغيرها من الأمراض والعلل التى تنال من صحة شعبنا وخاصة تلك التى تمس أقل المستويات من الناحيتين الاقتصادية والاجتماعية. فعى مقدورنا بل وسوف نقوم فعلا بتدريب جيش من الاشخاص اللازمين للعمل فى كل جماعة من جماعات أمتنا لاحراز النصر على الامراض التى يمكن الوقاية منها. ونحن نتطلع الى عصر من السلام والرخاء من خلال مباشرة الصحة العامة للجميع.

بقلم: الدكتور احمد فؤاد الشربينى
أستاذ ورئيس قسم صحة الاسرة
المعهد العالى للصحة العامة
الاسكندرية - مصر

ب- التدريس هو الحرفة التقليدية الوحيدة التى لم تصم لها حتى الآن الأدوات التى يمكن بها للشخص العادى أن يؤدى انجازا أفضل. فالتدريس، فى هذا المجال، متخلف كثيرا عن الطب الذى أصبحت فيه الأدوات متيسرة لأول مرة منذ قرن او أكثر. وهو، بالطبع، متخلف للغاية عن الحرف الميكانيكية التى كان لنا فيها تمرسا فعالا على مدى الآلاف والآلاف من السنين (" عصر انقطاع الوصل" تأليف بيتر ف. دروكر - THE AGE OF DISCONTINUITY by: Peter F. Drucker ").

جـ- ومن الممكن تطوير الأدوات التعليمية للتعليم الذاتى والاختبار الذاتى سهلة الفهم بطريقة ثورية. ويمكن لهذه الأدوات ان تحدّ من السيطرة التى نمارسها حاليا المتطلبات الجامدة لزمان ومكان التعليم على المدارس والكليات. ويتركز اهتمامنا عالبا فى الوقت الحاضر على التدريس وليس على الدارسين. فقد يوجد التعلم بدون تدريس او التدريس بدون تعلم. فاذا تعلم الطلبة جيدا، فقد تلقوا الدرس جيدا... بصرف النظر عن قام بالتدريس او أدوات التعليم التى تم استخدامها.

خطـــاب الدعـــوة

يرسل هذا الخطاب مقدما لبيان أسباب عقد الحلقة العملية ولمعاونة المشتركين فـــى الاستعداد للحلقة.

عزيـــزى ...

ستعقد حلقة عملية عن أساليب التدريب على برامج صحة الأسرة تحت رعاية قسم صحة الأسرة بالمعهد العالى للصحة العامة فى ...

ونتوقع أن تتيح هذه الحلقة العملية فرصة مثيرة لتبادل الآراء والبحث عن المفاهيم الجديدة للتدريب على التعليم. وسوف يخصص اليوم الأول لمناقشة المستحدث من المنهجيات التعليميـــة الأهلية والمركزية.

وخلال الحلقة العملية نتوقع منك كمشترك أن تقوم بتصميم وايجاد موضوع تعليمى يتفق وفكـــرة الحلقة: أى تنمية صحة الأسرة. وسوف تصوغ عندئذ الأهداف التعليمية وتنشىء وحدة تعلـــم مبرمج سهلة التقليد ومستقلة القيادة.

وسوف يعاونك أنت وزملائك المشتركين فى تصميم وانشاء وحدتك فريق من اخصائيى تطويـــر التعليم والمربيين الصحيين. وعلى كل مشترك فى الاجراءات الفردية والجماعية لاعـداد هـــذه الوحدات أن يكون قادرا على اكتشاف طرق الافادة من أدوات التعلم المبرمجة فى تيسير التعليم فى معهده/معهدها الخاص. وسوف توجه المناقشات أيضا نحو ايجاد الأساليب العملية الكفيلة لمشاطرة تلك الأدوات، وخاصة تلك المتعلقة بوحدات التعلم المبرمجة المستكملة فـــى هـــذه الحلقة العملية.

ولكى تصبح الحلقة العملية تجربة مفيدة للغايـــة للجميـــع، نحثك علـــى اجـــراء الترتيبات الآتيـــة:

١- اختر بصفة مبدئية موضوعا (يتفق وفكرة الحلقة الدراسية/العملية) يمكنك أن تقيم عليه وحدة تعليمية . ويحتاج الدارس المتوسط فى برنامجك مابين ٣٠ و ٦٠ دقيقة لاستكمال هذه الوحدة. وقد ترغب فى ربط موضوعك بأحد الموضوعات المقترحة فى الصفحة التالية أو تختار موضوعا تعتقد أنه مناسب لبرنامجك.

٢- ومن الأهمية بمكان أن تحضر معك الى الحلقة العملية جميع المراجع والكتب والصور والشرائح مقاس ٣٥ مم وغيرها من الأدوات التى سوف تحتاج اليها لانشاء وحدتك للتعلم المبرمج .

٣- استعد لقضاء ثلاثة أيام من الجهد المركز فى تطوير ودراسة الخطوات المختلفة من التصميم والتطوير والاستخدام الفعال للأدوات بطريق التعلم المبرمج . وتتضمن هذه الخطوات تحديد الاهداف التعليمية بوضوح ، واختيار استراتيجيات التعلم التى سوف تساعد الدارس على تحقيق هذه الاهداف، وتصميم اختبار نهائى يسمح للدارس بقياس مقدار تحصيله العلمى . ولمزيد من الاعداد لهذه الحلقة العملية يوجد طيه بيانات لدراستك التمهيدية ، والرجا مراجعة هذه البيانات بدقة واحضارها الى الحلقة العملية فى . . .

وبالنسبة لبعض المشتركين قد تكون هذه الحلقة العملية أول لقاء بهذا الأسلوب التعليمى الجديد نسبيا ولكن المؤكد الفعالية، وسوف نبذل كل الجهد لمساعدتك فى اكتشاف امكانيات هذا الاسلوب. والهدف الاجمالى للحلقة العملية هو تمكين كل مشترك من (١) اجادة منهج المعالجة التعليمية لتدريس الموضوعات المتعلقة بصحة الأسرة للغير، و (٢) انشاء وحدة تعليمية على موضوع يتفق مع فكرة الحلقة الدراسية/العملية.

واننا لعلى ثقة من أن هذه الحلقة الدراسية/العملية سوف تكون تجربة ناجحة ومجزية لنا جميعا .

وتفضلوا بقبول فائق الاحترام ،،،

دكتور احمد فؤاد الشربينى
رئيس قسم صحة الاسرة بالمعهد العالى للصحة العامة بجامعة الاسكندرية ، الاسكندرية ،
مصر

الموضوعات المقترحة : *	تستخدم بمعرفة (حدد نوع (أو) مستوى العاملين)
١- صحة الأم/الطفل	- الممرضة
٢- التغذية	- القابلة
٣- تنظيم الأسرة - لماذا ؟	- الباحث الاجتماعى
٤- أساليب تنظيم الاسرة	- الداية
٥- الرعاية الصحية البسيطة - الاسعاف الأولى	- المولدة التقليدية
٦- نصائح ماقبل الولادة	- الطبيب
٧- رعاية صغار الاطفال	- رب الاسرة
٨- رعاية الطفل قبل سن المدرسة	- المشرف المحلى
٩- رعاية الطفل فى المدرسة	- المدرس
١٠- الأمراض السارية	
١١- التربية الجنسية	
١٢- النظافة	
١٣- وغيره	

* الموضوعات المشار اليها بعالية مجرد مقترحات. وسيكون الاعتبار الاكبر لدرجة الحاجة فى المجتمع ونقطة التدخل.

[illegible]

جامعة الاسكندرية

المعهد العالي للصحة العامة

قسم صحة الأسرة

١٦٥ طريق الحرية الاسكندرية

حلقة دراسية / حلقة عملية عن

التعلم المبرمج للعاملين في حقل صحة الاسرة

التسجيل

الاسم : ________________________________

اللقب أو الوظيفة : ________________________________

____

المدرسة أو الكلية أو الادارة : ________________________________

____

مجال الاهتمام الخاص: ________________________________

____

المؤهلات الدراسية : ________________________________

____

العنوان البريدى : ________________________________

____

لنكتب مرشدنا الخاص *

مشروع تعليم مبرمج

١- الهدف: اعداد مجموعة تعليمية ذات تصميم مختلط باستخدام مبادىء التعليم المبرمج .

٢- القيود :

أ- استخدام كل من التصميم الخطي والمتشعب

ب- انتقاء الوسيط المناسب (المناسب لتعلم الخصائص المحددة)

جـ- بيان دليل التجربة الميدانية

٣- الاحتياجات :

أ - يجب على البرنامج أن يستخدم بأكبر كفاءة ممكنة المبادىء المعروضة في الحلقة .

ب- يجب على البرنامج أن يراعي القيود المدرجة بعاليه .

جـ- يجب أن يتضمن البرنامج وسائل عرض (بصرية وشعوية) مناسبة للمهمة التعليمية المحددة .

٤- الاجراءات:

أ - اختيار الموضوع المراد برمجته
ب- تقييم مواصفات الدارسين
جـ- تحديد الأهداف بغير غموض
د - بيان الأهداف الفرعية
هـ- بناء معيار الاختبار
و- اختيار النموذج
ز- تنظيم الفقرات المتتالية
ح - بناء الكوادر
ط- اختبار الفقرات المتتالية
ى - اجراء المراجعات
ك- اقرار البرنامج
ل- اجراء المراجعات

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* الكثير من الاخصائيين يشعرون بعدم امكانية كتابة مرشد تدريبي للفقرات الزمنية القصيرة المكثفة، غير أن التجربة قد أثبتت أن ذلك ليس ممكنا فقط ولكنه مرغوب أيضا لكون معظم المدربين من الاشخاص النشطين الذين يتوافر فيهم قدر كبير من الخبرة المفيدة .

جامعـــة الاسكندريـــة
المعهـــد العالى للصحـة العامة
قســـم صحـــة الاســـرة

ورقـــة تسجيـــــل المتدربـــين*

عنوان الدورة .....

مدة الدورة .....

الاسم ..... (العنوان البريدى) .....

مكان واسم الوظيفة ..... اللقب الوظيفى .....

المحافظة .....

آخر مؤهل ..... المكان ..... التاريخ .....

المؤهل قبل الوظيفة .....

الدورات التدريبية السابق حضورها :

١ - .....

٢ - .....

٣ - .....

سنوات الخدمة فى الوظيفة الحالية .....

الخبرات السابقة ومشتملاتها :

	التاريخ	المدة
١-	.....	.....
٢-	.....	.....
٣-	.....	.....
٤-	.....	.....
٥-	.....	.....

المؤهلات التعليمية	الدرجـــات
١-	.....
٢-	.....
٣-	.....

مجال الاهتمام الخاص

التخصـــص .....

محل الميلاد	التاريـــخ
.....	.....

* لأغراض تقييم الدارس يستخدم هذا النموذج مباشرة لأغراض التحليل الابتدائى ، وتوضع الجداول والنتائج تحت تصرف مديرى المشروعات التدريبية للأنظمة الصحية ومقدمى التسهيلات والمـــوارد فى المشروع. وقد تشارك فى هذه المعلومات أيضا نوعيات مختلفة جدا من صانعى القرار بشـأن القوى العاملة فى الحقل الصحى من خلال التقارير النهائية للحلقات العملية.

تجربة تنظـــيم الأســـرة (موصوفة بايجاز)

تجربة صحة الأم والطفل　　تجربة حقلية

ردود الفعل على برنامج التدريب السابق (ســرى)

المكان	المـدة	ردود الفعل
.....	.....	١- غير كافية على الاطلاق
.....	.....	٢- غير كافية
.....	.....	٣- كافيـــة
.....	.....	٤- كافيـــة جـــدا

أسباب الاشتراك في دورة تدريبية.　　ضع علامة على احداها

١- غير راغب على الاطلاق
٢- غير راغب
٣- راغب
٤- راغب جدا

أساليب التدريب التي سبق استخدامها :

* المحاضرة
* المناقشة
* التعلم المبرمج (التعليم الذاتي)
* أسلوب الحالة
* الافلام (سمعية وبصرية)
* العاب المحاكاة
* الممارسة - التجارب العالمية الحقيقية - الاكلينيكية
* التعلم بالاهداف
* غيره (الرجا ادراج ذلك).

الرجا ادراج عشر مهام أو أنشطة تقوم بها يوميا عند ممارستك لعملك الحالى وجمّعها تحت عنوان التخطيط أو الادارة أو التدريس أو الاشراف أو التقنية أو الوظيفية ، الخ .

ومن بين هذه المهام العشر ضع علامة (*) بجوار المهام الثلاث التى تشعر بأنك مدرب عليها جيدا وذو خبرة جيدة فيها (أى أنه ليست لديك مشاكل بالنسبة للقيام بها وانه يمكنك ادائها بكفاءة) .

ومن بين هذه المهام العشر ضع علامة (X) أمام تلك التى ترغب فى الحصول على المزيد من المعلومات/المهارات/الخبرات بالنسبة لها .

وعند الانتهاء من البرنامج التدريبى للمعهد العالى للصحة العامة ماهو العمل/الوظيفة الذى ستباشره؟ ماهى متطلبات هذا العمل؟ وبالاضافة الى ذلك هل هناك مواصفات وظيفية لهذا العمل :

أ) اذا كانت هناك مواصفات وظيفية لهذا العمل . ادرج الانشطة

ب) اذا لم تكن هناك مواصفات وظيفية . جهز قائمتك الخاصة بالمهام/الانشطة/المسؤوليات التى يحتاجها هذا العمل .

<u>التوقعات من الدورة؟</u>

يحرص المعهد العالى للصحة العامة على وضع البرنامج التدريبى وفقا لاحتياجاتك واهتماماتك : ماهى المقترحات الموجودة لديك التى قد تساعد الكلية/هيئة التدريس على معرفة وتحقيق احتياجاتك الخاصة المحددة واهتماماتك ؟

وبالاضافة الى المعلومات المشار اليها بعاليه ، الرجا الاستعداد لمناقشة الآتى :

١- ماهى اهدافك/توقعاتك من هذه الدورة؟

٢- ماهى احتياجات الناس الذين تخدمهم ؟ (من حيث الأولويات)

وصف المهام	درجة الاجـــادة ممتاز جيـد متوسط ضعيف	الحاجة الى التطويـــر نعم لا
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...
.....	☐ ☐ ☐ ☐	... ...

جدول زمني مقترح لحلقة دراسية عن التعليم المبرمج (للمناقشة)

التاريخ / اليوم	الزمن	موضوع النشاط
		تقديم جدول الأعمال التعليم المبرمج أ) نظرة عامة ب) استعراض مراجع البحث عن فعالية التعليم المبرمج
		مناقشة / ردود فعل ندوة التدريب والبحث نموذج للتعلم المبرمج
		مناقشة / ردود فعل
		انتقاء الموضوعات
		موجز للخطوط الارشادية التي تضمن التحصيل عند تصميم وحدات التعلم المبرمجة
		غـــذاء
		تقييم عينات النماذج الأولية للأدوات
		الاهداف السلوكية
		تطوير التعلم المبرمج
		وقت حر عشاء
		تقديم وسائل التعليم

التاريخ / اليوم	الزمـــن	موضوع النشـــاط
		تصميم وبناء الاختبارات النهائية الأساسية
		تقيـــيم
		تطوير وحدات التعلم المبرمج (تابع)
		تبادل الوحدات
		مراجعة وحدات التعلم المبرمج
		تقديم وسائل التعليم المناسبة أو متابعة لتحسين وحدة التعلم المبرمج
		تبادل الوحدات
		تبادل الآراء بين المدربين والدارسين
		مراجعة وحدات التعلم المبرمج
		تقييم المشتركين للحلقة الدراسية
		موالاة مراجعة وحدات التعلم المبرمج
		الصورة النهائية لوحدات التعلم المبرمج
		استكمال وتجربة الوحدات
		تقييم هيئة التدريس للحلقة العملية وتعقيبها على تقييم الحلقة بمعرفة المشتركـــــين

هذه بعض الملاحظات عن التعليم الذاتى للرجوع اليها :

حلقة دراسية/ حلقة عملية عن التعليم المبرمج

نظرة عامة على التعليم المبرمج

مقدمة

التعليم المبرمج هو التجديد الذى انتشر بسرعة فى جميع أنحاء العالم خلال فترة عشر سنوات فقط من تاريخ ظهوره رسميا على يد ب.ف. سكينر (B. F. SKINNER) فى عام ١٩٥٤ والذى يتوقع له الاستمرار

الاشكال المختلفة

انطلاقا من البرنامج الخطى الاصلى لسكينر (SKINNER) والبرنامج المتشعب لكراودر (CROWDER) ظهرت أفكار متعددة للبرامج مثل :

* وحدات التعلم الذاتى
* أطقم التعلم الذاتى
* مجموعات التعلم
* الوحدات الشاملة

ووحدة التعلم الذاتى هى برنامج مؤسس على وحدة موضوع البحث.

وطاقم التعلم الذاتى مماثل لوحدة التعلم الذاتى .

ومجموعات التعلم أكثر شمولا بطبيعتها اذ انها تتضمن ليس فقط الوحدات المبرمجة ولكن أيضا الشرائح ومقاطع الافلام وغيرها من أدوات البحث اللازمة لدراسة أحد المقاطع فى موضوع البحث - الكل فى مجموعة واحدة.

الاستخدام بأوضاع جديدة

يرتبط التبنى السريع للتعليم المبرمج بأشكاله المختلفة بوضوح بمدرسة جديدة من التجهيزات أو الانماط التنظيمية مثل :

* التعليم المنفرد
* التعليم الموصوف فرديا
* برنامج الحاسب الالكترونى للتقدم
* المشروع الشامل - حيث يتم التعليم بمعرفة الاهل والبالغين والمجتمع والمدرسين
* المدرسة الأولية
* الجامعة المفتوحة
* التعلم التخصصى
* التعلم عن بعد .

* المرجع :

Dr Eufrosina N. Millan. A Handbook on Programmed Instruction, Manila, Philippines, 1972.

الاستخدام يستخدم التعليم المبرمج فى الوقت الحالى فى الكثير من المجالات . وقد فى العديد عددت جمعية التعلم المبرمج وتكنولوجيا التربية (APLET) فى كتابها من السنوى عن تكنولوجيا التعليم والتربية لعام ١٩٧٢-١٩٧٣، ٥٢ مجالا موضوعات متعلقا بالموضوع منها :

البحث

* التربية
* الصناعة
* الطب
* الاقتصاد
* النجارة
* صناعة الاحذية
* الطب البيطرى
* الدين
* الكهرباء والالكترونيات
* الهندسة
* الجغرافيا
* علم الهندسة
* الرياضيات
* اللغات

الاتجاهات

* لقد اخذت مناطق كثيرة من العالم بالتعليم المبرمج فى أشكاله المختلفة. وقد استخدمته بتوسع مدارس انجلترا ليس بشكل فردى فقط ولكن على هيئة اتحاد بين المؤسسات . ان جمعية التعلم المبرمج وتكنولوجيا التربية المتمركزة فى لندن والتى تضم أعضاء من دول أخرى قد عملت الكثير للنهوض بالتعلم المبرمج ليس فقط فى بريطانيا العظمى ولكن أيضا فى أنحاء أخرى من العالم.

* وقد انتشر التعليم المنفرد فى الكثير من المدارس كما زاد أيضا استخدام وحدات التعلم الذاتى والوحدات الشاملة فى مختلف أنحاء العالم.

* وهناك اتجاه عام لدمج الاشكال الأساسية للبرمجة أو لتعديلها .

الطبيعة والخصائص

التعليم المبرمج أسلوب يمكن به للدارس أن يعلم نفسه بنفسه بأدوات تتوالى بعناية. وهذه الأدوات التعليمية الذاتية :

* مقدمة على هيئة خطوات صغيرة
* متتالية منطقيا
* تتطلب استجابة عملية
* تخطر الدارس مباشرة عن طريق الاسترجاع الفورى للمعلومات بمدى صحة اجابته وبذلك تعزز نفسها بنفسها
* تتضمن تقييما متواصلا طالما أن معظم الكوادر تشمل اسئلة اختيارية خلاف الاختبار النهائى
* تطبق طريقة التعليم اذ أنها مبنية من البسيط الى المعقد أو من السهل الى الصعب.

مالا ينطبق على التعليم المبرمج

* ليست الادوات المبرمجة اختبارا بل هى أداة تدريس تعطى فيها معلومة للدارس ليطبقها على موقف جديد .
* التعليم المبرمج ليس علاجا لجميع المواقف وهو ليس الأسلوب الوحيد بل يجب استخدامه مع الاساليب الأخرى . ولا زالت هناك الحاجة الى المدرس وان كان ذلك للقيام بدور مختلف - وهو دور المدير أو المشرف على التعلم.
* التعليم المبرمج ليس معينا سمعيا بصريا . فالتعلم المبرمج هو مجهود لاستكمال النموذج التعليمى - أى :

المثارة ← الاستجابة ← التعزيز

والمعين السمعى البصرى اثارة فقط.

قيم التعلم المبرمج

* الادوات المبرمجة الجيدة تركز على الأساسيات فقط.
* يتم استعمال المزيد من الأدوات فى مدى قصير اذ أنها تساعد على حل مشكلة انطلاق المعرفة.
* تجعل التعلم التخصصى ممكنا حتى بالنسبة للطلبة البلداء.
* هناك شعور بالرضا نتيجة لمعرفة أنه قد تم التوصل الى الاجابات الصحيحة.

شاركة عدد لا نهائى من الطلبة والمدرس
ع البحث.
م الاحتفاظ بمستويات مرتفعة من الاداء من خلال برامج جيدة التوجيه
يمكن للطلبة الفائقين اللحاق بزملائهم بسهولة.
* يستحث المواهب الخلاقة للمربين والمدربين.
* يحتاج الى مهارات فنية كبيرة لوضع برنامج جيد.
* البرامج المتيسرة فى السوق قليلة جدا.
* انتاج الادوات مكلف فى البداية (وهو غير موصى به للاعداد المحدودة
من الدارسين فى البرنامج الاجمالى).

هناك نوعان أساسيان من البرامج:

أنواع البرامج

* برنامج سكينر (SKINNER) المسمى أيضا:
- البرنامج الخطى لأنه يتبع خطا فكريا واحدا أى أن الدارس ينتقل من كادر الى الكادر الذى يليه.
- ذو الاجابة الانشائية لأن الدارس يتبنى أو يعد اجابته بنفسه.
- خارجى لأن طريق الدارس محدد مسبقا بمعرفة واضع البرنامج.

* برنامج كراودر (CROWDER) المسمى أيضا:
- البرنامج متعدد الاختيارات حيث أنه يقدم أسئلة ذات اختيارات متعددة بعد اعطاء المعلومة.
- البرنامج المتشعب لأن الدارس لا يتبع خطا فكريا واحدا ولكنه ينحرف الى خطوط فكرية أخرى وفقا لاختياره.
- الكتاب غير المنظم لأنه مطلوب من الدارس عند اختيار كل اجابة أن ينتقل الى صفحة أخرى.

- البرنامج الداخلى لأن طريق الدارس محدد بواسطة اختياره الشخصى للاجابة.

خطوات البرمجة

هناك خمس خطوات أساسية عند اعداد الأدوات المبرمجة :

الخطوة الأولى : * تقرير الأهداف:

- بعبارات سلوكية (يمكن ملاحظتها)
- مع الوضع أو الاوضاع التى يجب على الدارس أن يعمل فى ظلها.
- مع نوعية الاداء المتوقع.

وعلى الاهداف أن تضع فى اعتبارها النتائج المتوقعة من التعلم مثل :

- ماديا (المعرفة، التفهم، التطبيق، التحليل، التجميع، والتقييم)
- عاطفيا (المواقف، القيم، الاهتمامات، التقديرات)
- نفسيا (المهارات، المواهب، العادات)

الخطوة الثانية : * وضع الاختبار النهائى :

- يجب أن يكون لكل هدف بند أو بنود اختبارية توازيه
- يجب أن تكون الاسئلة من أنواع مختلفة.
- يجب بناء الاسئلة طبقا لمبادىء بناء الاختبارات.

الخطوة الثالثة : * صياغة البرنامج

- تقديم الادوات بوسائل مختلفة (خطية ، متشعبة ، أو بشكل اندماجي أو معدل) .
- استخدام الصور والخرائط البيانية والشرائح عند اللزوم .
- التزويد بكوادر عملية كافية ليتمكن الدارس من تطبيق ما تعلمه .
- المراجعة للملائمة والقواعد اللغوية . . الخ

الخطوة الرابعة : * اختبار البرنامج

- أولا على أساس فردي . ملاحظة ردود الفعل وخاصة في الاجزاء الصعبة .
- بعد ذلك على مجموعة صغيرة .
- ثم على مجموعة كبيرة .

الخطوة الخامسة : * مراجعة البرنامج

- مراعاة الملاحظات التي أبديت أثناء اختبار البرنامج .
- قد يحتاج الأمر الى ايجاد المزيد من الكوادر .

لنراجع الآن خصائص التعلم المبرمج بالمقارنة بالتدريس التقليدى

التعلم المبرمج :

١- يركز على الدارس وغير مسيطر عليه من المدرس.

٢- يتضمن بيانا واضحا للأهداف.

٣- يستخدم معيارا ذو مراجع واختبار نهائى كدليل على النتائج .

٤- يزود بالمعلومات فى خطوات صغيرة متتالية ومنطقية سهلة الاستيعاب.

٥- موجز (يحتاج الى وقت أقل) .

٦- مستقل القيادة .

٧- يستخدم أى أسلوب أو أساليب تربوية تناسب المضمون .

٨- يعطى امكانية لاسترجاع المعلومات والنتائج بصفة مستمرة .

٩- يسمح للطلبة بابداء رد فعلهم .

١٠- يعطى تقوية للدارسين .

١١- يضمن تناسق نوعية الرقابة فى برامج التربية .

١٢- مفيد عند انتشار الدارسين من الناحية الجغرافية (حيث لا يحتاج الى فصول) .

١٣- يتيح للمدرس الوقت الواجب اعطاءه للاحتياجات الفردية للدارس وبذلك يعتبر أكثر فائدة من وجهة نظر المدرس.

والرجا التأكد من أن نموذجك يتضمن أكبر قدر ممكن من الملامح المشار اليها بعاليه .

يوجد مضمون التعليم الذاتي في اطار عملية انشاء برنامج للتعليم النظامي .
اذن ، ماهو التعليم النظامي ؟

التعليم النظامـــي (موجز)

نموذج التعليم النظامي يشبه في أحوال كثيرة عملية التخطيط للتعلم المبرمج . فأول خطوة تتضمن تحليل المشكلة . ماذا يريد / يحتاج الدارس الى معرفته أو عمله أو الشعور به ؟ ثم يتضمن النظر الى المضمون لبيان المحيط بموارده وكذا قيوده . فمن أجل تفهم ماهية الاحتياجات المراد تحقيقها بالتجربة العلمية من المهم الفصل بين مكان الدارسين الآن والمكان الذي يجب عليهم أن يتواجدوا فيه . وهذه المعادلة تؤدي الى الاحتياجات المراد تحقيقها في عملية التعليم .

والخطوة التالية التي تأتي نتيجة لصياغة الأهداف هي تقرير ماسوف يمكنهم أن يقوموا بـه من حيث الاداء . ويقوم بتقييم هذه الاهداف زملاء معترف وشهود لهم بالكفاءة في مجـال الموضوعات المحددة . وعندما يقر هؤلاء الخبراء الاهداف المذكورة توضع الاختبارات الأوليـة والنهائيـة .

والخطوة التي تلي ذلك هي اختيار التصميم الذي يبين كيفية تنظيم المنهج . وهنـاك بوجه عام خمسـة تصميمات رئيسية للتعليم :

١) أسلوب المحاضرة والمناقشة .

٢) التعليم المنفرد (والتعلم المبرمج يوجد داخل هذه الفئة) .

٣) تعليم المجموعات الصغيرة .

٤) الحلقات الدراسية .

٥) التعلم التجريبي .

والخطوة التالية الهامة هي وسائل الاتصال . فكيفية توصيل التعليم سؤال له أكثر من اجابة . ونادرا ماتصلح وسيلة اتصال واحدة لتوصيل المعلومات الى جميع الدارسين في اية مجموعة واحدة .

والتقييم هو الاجابة عن مدى نجاح التجربة التعليمية بالنسبة للدارس وكذا بالنسبة للمدرس والمصممين التربويين . والاستجابة في صورة التجميع المنتظم للمعلومات هي أساس المراجعة الـتي تعتبر الخطوة الأساسية الأخيرة للتعليم النظامي .

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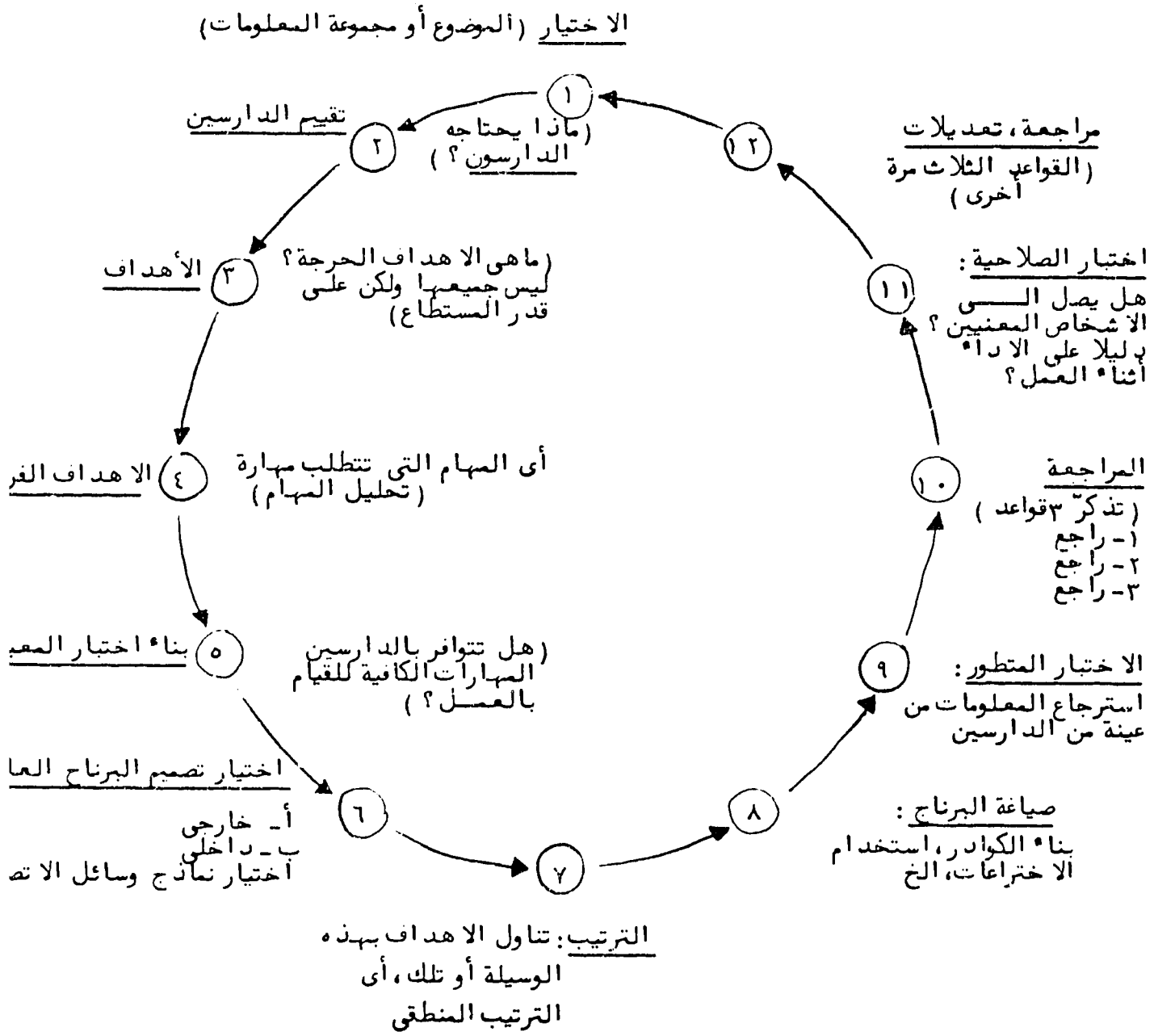
* المصدر : كلية الطب بجامعة كارولينا الشمالية ، مكتب الدراسات الطبية ، ١٩٧٨ .

من أجل ارشادك أثناء رحلتك فى عالم التعليم الذاتى البديع نقدم
لك حلقة التخطيط الآتيـــة . . . . . .

نموذج التعليم الذاتى

عمليـة التعلـــيم المبرمـــج



المهمـــة : كيفية قيادة سيارة ـــــــ وضع برنامج لتدريب أحد السائقين .

من المهم من أجل بناء الأهداف أن نتمكن من القيام بتحليل كامل للمهمة . وهذا تمرين يساعدك على تعلم هذه الحقيقة الأساسية .

وصف المهمـــة

سوف يقوم الطالب بدراسة تدريبية فى القيادة لتعلم قيادة السيارة بأمان . ويتولى المدرس معلـــم بسيارة لها جهاز نقل حركة تلقائى . وبعض المهام المتوقع منه أن يؤديها بطريقة صحيحة هى التالية : الضغط على بدال الفرامل عند الاقتراب من اشارة بالتوقـف ثم بعد التوقف التأكد من عدم اقتراب سيارات أخرى ثم زيادة السرعة برفق . عند الرغبـــة فى الدوران لليسار عند احد التقاطعات يتخذ اللازم لذلك وتشغيل مفتاح الاشارة بالانوار ومساحات الحاجب الزجاجى للريح وجهاز ازالة الصقيع .

والآن أكتب خطوة بخطوة تحليلا لهذه المهمة .

يساعد على التعرف على المهمة تقسيمها الى خطوات متتالية. ويتم ذلك بواسطة عملية تسمى بـ " تحليل المهمة ".

الأهداف:

١- عند الاقتراب من اشارة بالتوقف سيقوم الطالب بشكل سليم وبأمان بالضغط على بدال الفرامل والتوقف بالسيارة.

٢- بعد توقف السيارة سيقوم الطالب بمراقبة المرور العابر قبل الانتقال الى الخطوة التالية ثم يزيد من سرعته برفق.

٣- عند الاقتراب من أحد التقاطعات مع الرغبة فى الدوران لليسار سيقوم الطالب بتشغيل علامة الدوران الى اليسار.

٤- عند بلوغ التقاطع سيقوم الطالب بالدوران لليسار بشكل سليم وبأمان.

٥- عند مطالبة الطالب باضاءة النور سيقوم الطالب بادارة مفتاح النور.

٦- عند مطالبة الطالب بتشغيل المساحات سيقوم الطالب بادارة مفتاح المساحات.

وهذا مثال آخر يساعدك على تجزئة احدى المهام الى سلسلة منطقية من الحوادث تساعد الدارس على استكمال الهدف من التعلم . . .

وصف المهمة

سيقوم الطالب بتجربة لمعرفة المكونات الأساسية لاحدى اوراق الشجر ثم يقوم بتسجيل النتائج . وسوف يزوّد الطالب بمجهر وغيره من المعدات اللازمة . وسيقوم الطالب أولا بقلب الورقة للكشف عن وجهها السفلى ثم يقوم ثانيا بالتعرف على الغرف الهوائية (أو الثغيرات) والخليتين الحارستين على جانبى الورقة . ويقوم الطالب بعد ذلك بعمل رسم تخطيطى بسيط يوضح عليه ماشاهده من ثغيرات والخليتين الحارستين .

بعد ذلك ، سيقوم الطالب بعمل مقطع مستعرض رفيع للورقة بموس حلاقة ثم يضع المقطع المستعرض تحت المجهر ليتمكن من فحص حافة الورقة . والمهمة هى تحديد البشرة العليا واللحاء والبشرة السفلى . وأخيرا سيقوم الطالب بعمل رسم تخطيطى بسيط يوضح عليه ماشاهده تحت المجهر من بشرة عليا ولحاء وبشرة سفلى .

الهدف

سيقوم الطالب بعد تزويده بالاجهزة والتعليمات اللازمة باجراء تجربة للتعرف على المكونات الاساسية لاحدى أوراق الشجر وتسجيل النتائج .

الأهداف الفرعية

١- عند تزويده بورقة شجر سيقوم الطالب بقلبها للكشف عن وجهها السفلى .
٢- سيقوم الطالب بالتعرف على الثغيرات والخلايا الحارسة .
٣- سيقوم الطالب بعمل رسم تخطيطى بسيط لورقة الشجر متضمنا الثغيرات والخلايا الحارسة .
٤- سوف يوضح الطالب الثغيرات والخلايا الحارسة على رسمه التخطيطى .
٥- بعد تزويد الطالب بورقة شجر وموس حلاقة سيقوم بعمل مقطع مستعرض رفيع للورقة .
٦- سيضع الطالب المقطع المستعرض تحت المجهر ويقوم بضبط المجهر .
٧- سيستخدم الطالب المجهر لتحديد البشرة العليا واللحاء والبشرة السفلى فى المقطع المستعرض للورقة .
٨- سيقوم الطالب بعمل رسم تخطيطى بسيط للمقطع المستعرض متضمنا البشرة العليا واللحاء والبشرة السفلى .
٩- سيقوم الطالب بتوضيح البشرة العليا واللحاء والبشرة السفلى على رسمه التخطيطى .

عند وضع نموذج التعليمى الذاتى سيساعد الدارسين ان تعدهم ببعض التلميحات (الايماءات) . وهناك أنواعا مختلفة من التلميحات:

أمثلة من التلميحات الموضوعيـة

١- يدرك العقل عن طريق النبضات المنقولة اليه من الاذن الداخلية بواسطة العصب ـــــــ .

٢- يحدث التعلم عادة عندما تكون استجابة الشخص محل التقدير الفورى أو ـــــــ .

٣- التعزيز الذى يتضمن تقديم المؤثرات المناسبة يسمى التعزيز الايجابى ، والتعزيـــــــز الذى يتضمن القضاء على المؤثرات الضارة (مثل الصوت العالى) يسمى التعزيز ـــــــ .

٤- من السهل الالمام بالنظام المترى عندما يفكر الانسان فى علاقته بالنظام النقدى . فالدولار فيه ـــــــ سنت (بنس) .

٥- الجنيه المصرى يساوى مائة قرش. المتر فيه ـــــــ سنتيمتر .

٦- اذن هناك تشابه بشكل مابين السنتيمتر والسنت. فمثلما تساوى المائة قرش جنيها واحدا ، تساوى المائة سنتيمتر ـــــــ .

٧- السنتيجراد والفهرنهيت مقياسان للحرارة . كالعن أيضا ـــــــ .

٨- مع العلم بأن معظم المعادن تتمدد بالحرارة ، ومع تذكر أن مدة البندول تعتمد علـــى طول الذراع، فاننا نتوقع فى اليوم البارد للساعة ذات البندول أن ـــــــ .

٩- العلم المصرى ألوانه ـــــــ و ـــــــ و ـــــــ .

أمثلة من التلميحـــات الشكليـــة

١- عدد الحروف:

فى رد فعل بتلار - راندون أو انطلاق الركبة، تكون ركلة القدم ـــــــ للضربة على الركبة.

٢- عدد الكلمات فى الرد :

للتعبير عن النشاط الذى تم فى الماضى البعيد أو الذى لا يزال مستمرا حتى الآن، نستخدم صيغة الفعل ـــــــــــ .

٣- الردود المسلسلة :

على غرار العلم المصرى يتكون أعلام سوريا واليمن وليبيا والعراق ولبنان من ـــــ و ـــــ و ـــــــ .

٤- المعايير الصوتية (السجع) :

تسعة فى سبعة مضافا اليها واحد تساوى ثمانية فى ثمانية، أو ـــــــ .

٥- استعمال الكلمة المناسبة :

نقول أن كلمة صبى مفرد ولكن كلمة صبيان مفرد / جمع ـــــــ .

والفهم سلوك أكثر تعقيدا ولذلك يجب أن نتوقع من الدارس أن يسلك سلوكا مختلفا عما اذا كان المطلوب مجرد معرفة الموضوع. فاذا كان من الممكن للدارس أن يشرح وظيفة أجزاء جهـــاز العرض، وأن يشرح كيفية عمل هذا الجهاز، فاننا يمكننا أن نقول أن لديه ـــــــــــ بأجهزة العرض.

وهذا مزيد من وسائل التلميـــــح :

أساليب ادخال المضمون في الكوادر

١- بالتعريف:

أ - استخدم تعريف منطقي واتبعه في نفس الكادر بمثال يمكن للطالب أن يستكمله.

مثال : الاسم هو تسمية لأحد الأشياء.

الكرسي اسم لأنه ـــــــ لأحد الأشياء.

ب- ضع في كادر آخر مثالا يحتاج من الطالب أن يستخدم كلمة التعريف.

مثال : الشجرة ـــــــ لأنها تسمية لأحد الأشياء.

جـ - استخدم العكس موضحا مالا يتضمنه المفهوم مع الاشارة الى المفاهـــيم التي يمكن الخلط بينها بسهولة والتي تختلف عن المفهوم محل البحث.

مثال : يفني ليس ـــــــ لأنه ـــــــ تسمية لأحد الاشياء.

في " ليلى تملك ثوبا جميلا "، ثوبا ـــــــ ولكن جميل ـــــــ تسمية لأحد الأشياء.

٢- بالمثال:

كرة، قط، كلب، منزل - كل هذه التسميات لأشياء ويطلق عليها أسمـــاء. والتسمية طائرة يطلق عليها أيضا ـــــــ .

٣- بالتوقع:

الفاعل في الجملة اسم وأحيانا يوحي الاسم بحركة (فعل).

مثال : في "التلاميذ يذاكرون دروسهم جيدا"، الفاعل هو ـــــــ .

والتلاميذ ـــــــــــــ .

في " السباحة تدريب طيب" ، الفاعل ـــــــــــــ ، والسباحة اسم ـــــــــــــ (يوحى بحركة أى فعل) .

٤- بالتلميـــــح :

أ ـ من خلال تشابه :

(١) الافكار: فكما أن الشمس تشرق فى الصباح فان البدر ـــــــــــــ فـــى المساء .

(٢) المؤشرات: "طبعا" تشير الى الاجابة على جملة منطقية .

كان من المتعذر المرور عبر الطرق بعد الامطار الغزيـــرة .
طبعا كان الكثير من الطلبة ـــــــــ عن الفصل .

(٣) البناء اللغوى :

كلما زاد ارتفاع أحد الاماكن زادت برودة الجو، وكلمـــــا انخفض المكان ـــــــــــــ ـــــــــــــ .

ب ـ من خلال قيـــود

(١) الافكار : الهواء الساخن يرتفع والهواء البارد ـــــــــــــ .

(٢) المؤشرات:

+ ٨ أكبر من - ٢ و +٣ أكبر من - ١٠ ،
ولكن ـــــــــــــ يكون ـــــــــــــ من - ١٠ .

(٣) البناء اللغوى :

نفس البناء يحدد نطاق الاجابة .

كلما زادت كثافة السحب كانت الامطار الهاطلة (أخف، أثقل) .

جـ - من خلال اختيار الوسائل (بالتقليد)

يهوى التلاميذ المجدون أن يتم تحدّيهم فى ذكائهم وبالتالى يجب سوقهم أسئلة ـــــــــــ .

د - بالايماءات : بالاحالة الى المعلومات السابقة.

اصطلاح "مبدأ" معناه "حقيقة أساسية" أو "قانون أساسى".
فمبادئ التدريس معناها اذن ـــــــــــ للتدريس.

قائمة تفسيرية بالمصطلحات الرئيسية المستخدمة فى التعليم الذاتى

المبرمجون : المصطلحات المرتبطة بالتعليم المبرمج

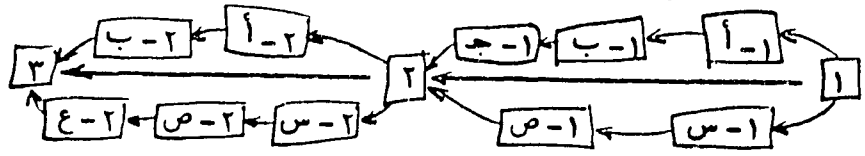
١- اداة التدريس: الاداة المستخدمة فى عرض أو تقديم التعليم المبرمج . وقد تكون الاداة صفحة مطبوعة أو فيلما أو مصدرها الحاسب الالكترونى .

٢- التلميحات الموضوعية : هى ايماءات للاستجابة النابعة من المعارف السابقة للطالب.

٣- البرنامج الخطى : برنامج تتوالى فيه الكوادر بالترتيب بحيث يكون احدها تلو الآخر . ويجب على كل من يستخدم هذا البرنامج أن يتبع هذا الترتيب

٤- اللوحة : رسم بيانى أو خريطة أو وسيلة بصرية مشار اليها فى أحد البرامج ولكنها منفصلة عن كوادر البرنامج . وقد تُضَم اللوحة لصفحات البرنامج أو تنفصل عنها . والبرنامج فى حد ذاته أحد المراجع البصرية لمرور بصر القارئ عليه عبر مراحله المختلفة .

٥- البرنامج المتشعب: برنامج تتوالى فيه الكوادر بترتيبات متعددة ويقوم فيه مستخدم البرنامج بترتيب الكوادر وبرمجتها وفقا لاستجابته الخاصة . والتشعب محاولة لوضع الاختلاف القائم بين الافراد محل الاعتبار.



٦- التلميحات الشكلية : هى ايماءات للاستجابة المبنية على شكل الاستجابة — مثل :

عدد الحروف . . . . . .

الايماء الى الحروف س ———

السجع

٧- الكتاب المختلط : مثال للاسلوب التشعب. وهو كتاب يتناول القارئ صفحاته وفقا لاستجابته الخاصة وليس بترتيب الصفحات حسبما يحدث فى الاستخدام العادى للكتب

٨- الاستجابة المختلقة : حيث يقوم المستخدم باختلاق الاستجابة بدلا من الاختيار بين العديد من الاستجابات.

٩- الشطب: أى الاستبعاد التدريجى لايماءات الاستجابة.

١٠- الكادر: فى البرنامج الخطى يسمى كادرا كل جزء من معلومة تصحبه الحاجة الى ابداء احدى الاستجابات.

١١- الخطوة : قرار تخطيطى بشأن مايجب أن يتضمنه كل كادر من المعلومات سواء قلّت أو كثرت.

١٢- السلوك النهائى : المنتظر من الدارس بعد انتهاء البرنامج .

١٣- المعايير السلوكية : التوقعات الكمية والنوعية والزمنية لنشاط معين والمستخدمة كأهداف سلوكية .

١٤- الاسترجاع: المعلومة المقدمة للدارس والتى تقول له ما اذا كانت استجابته مناسبة أم لا .

سوف تستخدم فى آخر الأمر ادوات بصرية ـ رسوم بيانية، صور، أفلام وغيرها من الادوات السمعية والبصرية لاستكمال نموذجك. فما الذى يقرر نوعية البصريات التى يجب عليك أن تستخدمها؟ هذه بعض المؤشرات : البصريـــات

بصرى : تمثيل بالرمز أو الصورة

ويمكن للبصريات أن تساعد اهدافك من التدريس بالطرق الآتية :

١- جذب وحفظ انتباه الطلبة
٢- توضيح المعلومات
٣- تقديم مرجع عام للمعلم والطالب
٤- تخطى قيود الزمن والمكان (مثل الحالات الاكلينيكية)

ولمعرفة ما اذا كانت وحدتك للتعليم الذاتى سوف تستفيد من استخدام البصريات:

أ - افحص اهدافك التعليمية.
ب - انظر الى خصائص وسائل الاتصال المتاحة (انظر للخريطة البيانية).

واسئل هذه الاسئلة :

١- هل أنا فى حاجة الى بصريات لاستكمال هذا الهدف (هل ستزيد البصريات على هدفى أم أنها ستصرف الانتباه عن تدريسى ؟)
٢- هل أنا فى حاجة الى أكثر من بصرية واحدة لهذا الهدف؟ (أى مجموعة أو تركيبة من مختلف وسائل الاتصال البصرية).
٣- ماهدى وجوب اقتراب البصرية من الحياة الحقيقية؟ (هل يمكن أن تكون رسما بيانيا خطيا أو يجب أن تكون صورة سوداء وبيضاء أم بالألوان ؟)
٤- هل يجب على البصرية أن تكون بالالون ؟ (اللون هام بوجه خاص لأغراض "التمييز" أو "التشخيص").

خريطة بيانية للبصريات المختارة لوحدات التعليم الذاتى

	تشكيلة العـــرض	عيّنات من الافعال
أكثر رمزية ↕ أكثر واقعية	**الطبع** الحروف الكبيرة، الخطوط تحت الكلمات، الصندقة، الفصل عن النص، الاستخدام المختلف للحروف، الترقيم.	"عرّف"، "عدد"، "اشرح"، "ناقش"
	الرسوم والخرائط البيانية الصور، الكلمات، الارقام، الرسم البيانى ذو الخط المائل أو المتقطع، الالوان أو الاسود والابيض	"اربط"، "قيّم"، "تذكر"، "اختار"
	الرسوم الخطية رسوم خطية بسيطة مع أو بدون تعليق، رسوم خطية مظللة مع او بدون تعليق، سلسلة رسوم حقيقية أو بيانية للمقارنة، رسوم متحركة	"عيّن"، "تعرّف"، "طابق"، "قارن"
	الصور السوداء والبيضاء مطبوعة مع النص، مضافة الى الملحق، مقاسات مختلفة، صور للمقارنة، حلقات من الصور	"عرّف"، "طابق"، "اثبت"، "قارن"
	الشرائح الملونة مرفقة بظهر الوحدة، حقيقية أو بيانية، لقطات قريبة أو بعيدة، شرائح للمقارنة، حلقات الشرائح	"ميّز"، "شخص"، "طابق"، "قارن"

عدّد مزايا وعيوب كل من الآتى :

أنواع الادوات التى يمكن اعتبارها " معاونات سمعية وبصرية" :

الافلام
الدوائر الفيلمية
شرائط الفيديو
الافلام المؤلفة من صور ساكنة والمذيلة بشروح
الشرائح
الشفافات
الجداول / الملصقات / الخرائط / لوح العرض
الرسوم على القماش
الكتب القلابة
الكروت المضيئة
الصور / النيجاتيف
الكتيبات / الكراسات / النشرات
" الحقيقيات" (النماذج الحقيقية)
النماذج
المكورات
الالعاب
الحيل الاعلانية
الاسطوانات
الشرائط / الكاستات -
تسجيلات الفيديو
السبورة
الراديو / التليفزيون

سؤال : كيف يمكن دمج ماذكر فى التعليم المبرمج ؟
هل يجب دمجها ؟
هل يمكن دمجها ؟

وماذا عن تعلم التعليم الذاتي بالتعليم الذاتي ؟ ها هي
وحدة تعليم ذاتي بالتعليم الذاتي - جربهـــا .

-١

الكثير من علماء النفس والمربيين قد تنبأوا بأن
أدوات ـــــــ سوف تحدث انقلابا في التربية

لمعرفة الاجابة الصحيحة، اقلب الصفحة

هذا ليس السؤال الثاني . السؤال الثاني -١٤
في الصفحة التالية .

ايجابيا

تعلمت الآن المبدأ الأول للتعليم المبرمج وهو
مبدأ ايجابية ـــــــــــ .

-٢٧

الفورى

يتقدم الطالب بثقة طالما أنه يبني معرفتـــه
على ـــــــــ آمنة .

-٤٠

خطوات صغيرة
وبالتالي مزيد من
النجاح

الافكار المنعزلة يصعب تذكّرها . مايسمـــى
" منبهات الذاكرة" يتضمن ربط ـــــــــــ .

الاستجابة أو
المشاركة الايجابية

-٥٣

الخطوات
الضعيف

الشكل ـــــــــ للخطوات يتداخل مع الطبيعة
الفردية لدورة الاسئلة والاجابات.

-٢

اجابة السؤال الأول

التدريس

التعليم ب ـــــــــــ التدريس
يسمى عادة التعـ ـــــ المبرمج .

والآن انتقل الى السؤال الثاني

لمعرفة الاجابة الصحيحة ، اقلب الصفحة .

-١٥

الاستجابة
أو المشاركة

يقدم البرنامج موضوع البحث على هيئة
سلسلة ـــــ تزداد تعقيدا بالتدريج

-٢٨

اسس
(أو المرادف)

تعلمت الآن المبادئ الرئيسية الثلاثة للتعليم
المبرمج :
أ ـ ـــــــــــ ـــــــــــ
ب ـ ـــــــــــ ـــــــــــ وبالتالى
القليل من ـــــــــــ .
جـ ـــــــــــ مباشرة .

-٤١

الافكار والمفاهيم
(أو المرادف)

البرنامج الجيد يخلق ـــــــــ بين المجالات
المختلفة لمعرفة الطالب .

-٥٤

الذاتى

وبذلك يمكن اضافة بند رابع لقائمة المزايا :
وهى ـــــــــ ـــــــــــ .

اجابة السؤال الثاني

-٣

أدوات التعليم

" التعليم المبرمج" تسمية مناسبة للتعليم باد ـــــــ لأن التدريس الحالى يتم عن طريق ـــــــــــ .

والآن انتقل الى السؤال الثالث

-١٦

من الخطوات

فى المراحل الأولى لاحد البرامج ، يمكن أن تكون الاستجابات المطلوبة مختصرة ككلمة أو مقطع كلمة. ومع التقدم فى البرنامج يمكن أن يكون المطلوب وحدات أكبر كثيرا مثل ـــــــــــ .

-٢٩

المشاركة الايجابية - خطوات صغيرة - الاخطاء التأكيد

قد تتسائل ، " الا يتعطل الطالب من مثل هذه الخطوات الصغيرة والسهلة؟" الواقع انها لا تعطله بل انها تحدث أثرا عكسيا : انها ـــــــــــ .

-٤٢

الروابط أو العلاقات أو المؤشرات

تبقى الافكار فى الذاكرة مددا أطول عندما تكون مرتبطة. والبرنامج الجيد يربط الافكار. وبالتالي يسفر البرنامج الجيد عن ـــــــــــ .

-٥٥

الخطوات الذاتية

المزايا الثلاث الأخرى تكمن فى تحسين الآتى :

أ -

ب -

جـ -

-٤

أدوات التدريس البرامج

في التعليم المبرمج، يقوم البرنامج بمهمة التدريس، وأدوات التدريس تقدم فقط للطالب.

-١٧

الجمل أو الفقرات أو العبارات

كل خطوة يتمها الطالب تزوده باضافة صغيرة ومحددة .

-٣٠

تستعجله (أو المرادف)

هذا التصريح تؤيده تجربة اثبتت أن التقليل من مضمون المراحل والزيادة في اعدادها يمكنهما (زيادة/تقليل) الزمن اللازم لاستكمال البرنامج .

-٤٣

قدرة أفضل على الحفظ (أو المرادف)

وهذا سبب آخر لتبرير عدم شعورك بصعوبة القدرة على حفظ محتويات هذا البرنامج . فبوجه عام، يسفر التعليم المبرمج عن نتائج ممتازة .

-٥٦

سرعة التعلم، الروح المعنوية، القدرة على الحفظ

يجب عدم الخلط بينها وبين المبادئ الثلاث للتعليم المبرمج، وهي :

١-

٢-

٣-

-٥

مبرمج
برنامج

يمكن تقديم البرنامج سواء بواسطة ـــــــــ،
أو على هيئة كتاب.

-١٨

لمعارفه
فهمه
أو امكانياته

الطلبة المجدون يرتكبون ـــــــــ أقل فى المهام
والامتحانات عن الطلبة الضعفاء.

-٣١

تقليل

اكتشف علماء النفس أن الطالب حتى فى مرحلة التعليم
يفضل أن يكون على صواب عن أن يكون على ـــــــــ .

-٤٤

قدرة على الحفظ

انت أيضا تعلم مزايا ثلاث للتعليم المبرمج :

أ - تزيد ـــــــــ التعلم
ب - المعدل المنخفض للخطأ يحفظ ـــــــــ عالية
جـ - ـــــــــ تتحسن .

-٥٧

المشاركة الايجابية ،
خطوات صغيرة وبذلك
اخطاء قليلة ،
التأكيد الفورى .

بواسطة التعليم المبرمج ، يمكن للطالب أن يتعلم
كيفية اقامة نموذج رياضى أو كيفية تحليل احدى
المشاكل . هل هذه امثلة لادوات فكرية أم واقعية؟

-٦

جهاز التدريس

فعالية الـــــــ المبرمج لا تعتمد على ما اذا كان يستخدم جهازا أو ـــــــــ لتقديم البرنامج .

-١٩

هفوات أو أخطاء

الطلبة المجدون يرتكبون اخطاء أقل من الطلبة الضعفاء. قد يتعلمون (بسرعة أكبر/أقل) ويحتفظون بمعارفهـــــم (مدة اطول/أقل طولا) .

-٣٢

خطـــأ

عندما يرتكب الطالب أخطاء بصفة مستمرة فانه تثبط همته ويمل . فما الذى تفعله من حيث طول الخطوات للتقليل من تثبيط الهمم والملل ؟

-٤٥

سرعة
الروح المعنوية
القدرة على الحفظ

ما هى اداة التعليم المبرمج التى تمنع تراكم الاخطاء والتصورات الخاطئة ؟

-٥٨

فكرية

يحاول البرنامج الذى تقرأه أن يدرس فكرة التـــــــــ ولذلك فانه يتناول خليط من الادوات الواقعية والـــــ .

-٧

التعليم
كتاب

ما تقرأه كما يحتمل أن تكون قد توقعت هو عبارة
عن ـــــــ مقدم على هيئة كتاب.

-٢٠

سرعة أكبر
مدى أطول

من الممكن أن يستفيد المرء من اخطاء الشخصية ولكنه
ليس بلازم أن يرتكب ـــــــ ـــــــ ليتعلم كيفية
تفاديها بكفاءة أكبر .

-٣٣

التقليل من طول الخطوات
وتصغيرها
(أو المرادف)

بالاضافة الى رفع الروح المعنوية، يزيد المعدل
المنخفض من الاخطاء من ـــــــــــــــ
(اكمل هذه الحقيقة) .

-٤٦

التأكيد أو التصحيح
الفورى

المبادىء الثلاثة للتعليم المبرمج هى:
١-
٢-
٣-

-٥٩

التعلم المبرمج
فكرية

عند التعلم من فيلم أو محاضرة يضطر الدارسون السريعون
والبطيئون الى المتابعة بنفس السرعة. أما فى التعليم
المبرمج فإنه ـــــــــــــــ
(اكمل هذه الحقيقة) .

-٨

برنامج

هذا البرنامج يصور ريدرس معا مبادئ التعليم ـــــــــــ .

-٢١

الاخطاء والهفوات

فى البرنامج المصمم جيدا تكون الـ ـــــــــــ صغيرة بحيث يكون الطالب عادة على صواب. فهو نادرا مايرتكب ـــــــــــ .

-٣٤

سرعة التعلم

أثرين مرغوب فيهما للتعليم المبرمج هما :

أ ـ ـــــــــــ أفضل .

ب ـ ـــــــــــ أكبر .

-٤٧

المشاركة الايجابية ، خطوات صغيرة وبالتالى أخطاء قليلة ، التأكيد الفورى

ماذا يحدث لو توقف الطالب عن التفكير أثناء استماعه للمحاضر؟

-٦٠

يمكن لكل طالب أن يتقدم وفقا لسرعته الخاصة (أو المرادف)

يمكن للبرنامج أن يعلم الطالب الاجابة على أى سؤال ولكن المدرس فقط هو الذى يستطيع أن يعلم الطالب كيفية ـــــــــــ .

-٩

المبرمج

البرنامج الجيد يبنى معرفة الطالب بسلسلة من الخطوات الصغيرة. انت الآن فى ـــــ رقم ٩ من هذا البرنامج.

-٢٢

خطوات هفوة أو خطأ

أن تعرف الآن مبدأين للتعليم المبرمج :
١- ـــــــــ ـــــــــ
٢- خطوات ـــــــــ، وبذلك يمكن للطالب أن يرتكب ـــــــــ قليلة.

-٣٥

روح معنوية أفضل
سرعة أكبر فى التعلم

أنت تعرف أيضا ثلاثة مبادىء للتعليم المبرمج
١ - ـــــــــ ـــــــــ وما الى ذلك.
٢- ـــــــــ ـــــــــ
ـــــــــ ـــــــــ
٣- ـــــــــ ـــــــــ

-٤٨

يتخلف أو يفقد فقرة مما يقال (أو المرادف)

أثناء العمل فى أحد البرامج، يمكن للطالب أن يتوقف كلما رغب فى ذلك لـ ـــــــــ دون أن يخشى التخلف فى أى شىء.

-٦١

اثارة الاسئلة

عندما يرغب الطالب فى مناقشة احدى الافكار فانه يكون فى حاجة الى ـــــــــ.

-١٠ الخطوة	كل خطوة سؤال أو معلومة أو بند مطلوب استكماله . وتحتوى بعض البرامج على آلاف ـــــــــــ .
-٢٣ الاستجابة الايجابية أو المشاركة صغيرة ، أخطاء أو هفوات	بمجرد استجابة الطالب تتبين له ـــــــــــ (اكمل هذه الحقيقة)
-٣٦ المشاركة الايجابية خطوات صغيرة ، أخطاء قليلة تأكيد قوى	يتذكر الناس نجاحهم بطريقة أفضل من فشلهم . والخطوات الاصغر تؤدى الى نجاح اكبر . ما الاثر الذى تتوقعه للخطوات الصغيرة على القدرة على الحفظ؟
-٤٩ يفكر أو يستعيد أو يتأمل أو يحلل أو يراجع	الوتيرة الواحدة للفيلم أو المحاضرة تميل الى ـــــــــــ التأمل البعيد .
-٦٢ مدرس (أو المرادف)	يقوم البرنامج الجيد بالتدريس بطريقة أفضل من الكتاب المدرسى أو الفيلم أو المحاضرة . ولكنه لن يحل أبدا محل ـــــــــــ الجيد .

٠١١

الخطوات

كل ـــــــ في أحد البرامج اثبات للمشاركة الايجابية للطالب بمطالبته بالاجابة على ـــــــ أو متابعة ـــــــ، أو استيفاء ـــــــ .

-٢٤

الاجابة الصحيحة
أو
ما اذا كان على صواب أم على خطأ
(أو المرادف)

اذا وقع في خطأ فانه ـــــــ مباشرة.

-٣٧

تحسينه
(أو المرادف)

عندما يكتب احد الاشخاص شيئا فانه أكثر ميلا الى أن ـــــــ عما اذا كان يقرأه فقط.

-٥٠

تثبيط الهمة أو منع
(أو المرادف)

هذه ميزة اخرى هامة للتعليم المبرمج :
أنه يمكن لكل طالب أن يتقدم حسب ـــــــ الطبيعية الخاصة.

-٦٣

المدرس

المبادئ الرئيسية الثلاثة للتعليم المبرمج هي :

-١
-٢
-٣

-١٢

خطوة سؤال التعليم الفوارغ

_____ قد تكون مجرد جزء من كلمة أو فقرة كاملة ولكنها دائما تحتاج الى مشاركة ايجابية.

-٢٥

يصححه

التأكيد الف _____ الذى يتلقاه الطالب عن كل _____ صحيحة يقوى معرفته فى نفس وقت حصوله عليها.

-٣٨

يتذكره أو يحفظه

الكتابة استجابة ايجابية. ماهو الاثر الذى تتوقعه لمبدأ الاستجابة الايجابية على القدرة على الحفظ؟

-٥١

سرعته

فكرة السرعة الذاتية تسمح للطالب الاكثر ذكاء أن يتقدم _____ أكبر من الطالب البطىء.

-٦٤

المشاركة الايجابية، خطوات صغيرة وبالتالى أخطاء قليلة، التأكيد الفورى.

والآن عدد المزايا الثلاث التى يفوق بها التعليم المبرمج الاساليب الأخرى:

أ -

ب -

جـ -

-١٣

الاستجابة أو الاجابة

عند قراءة كتاب أو الاستماع الى محاضرة أو مشاهدة فيلم يمكن للطالب أن يظل سلبيا . أما عند عمله من خلال البرنامج فانه لابد من أن يكون ـــــ .

للسؤال رقم ١٤ ، ارجع للصفحة الأولى .

-٢٦

فورى استجابة أو اجابة

يكون تراكم الاخطاء وسوء الفهم فى الغالب مصدرا رئيسيا لخفض الروح المعنوية . ويمكن تلافى ذلك بواسطة التأكيد أو التصحيح ـــــ .

-٣٩

تحسينه (أو المرادف)

والآن تعرف سببين لتحسين الحفظ فى التعليم المبرمج وهما :

أ - (تذكّر المبدأ الثانى)

ب - (تذكّر المبدأ الاول)

-٥٢

بسرعة

النظام الذاتى للخ ـــــ
يحقق أيضا عدم فشل الطالب ـــــ .

-٦٥

روح معنوية أفضل ،
سرعة أكبر فى التعلم ،
تحسن فى الحفظ ،
نظام ذاتى للخطوات .
(أى ثلاثة اجابة صحيحة)

هذه بعض الاعتبارات المسئولة عن التنبؤ بأن التعليم المبرمج سوف يحدث ثورة فى ـــــ .

هذا اختبار يتيح للدارس / الدارسة أن يلم بمدى فعالية تعلمه
تذكر: الدارس ليس محلا للمحاكمة، فالنظام الدراسي محل اختبار
بنفس درجة الدارس نفسه.

اختبار في التعليم المبرمج

توجيه: اكتب حرف البند الذي يكمل العبارات الآتية على أفضل وجه:

١- الفكرة الأساسية للتعليم المبرمج هي:

أ - تقسيم المعلومات الى وحدات من البنود الكبيرة.
ب - تأكيد التعلم بواسطة الشعور بالرضا نتيجة للتوصل الى الاجابة الصحيحة.
جـ - تنفيذ التعليمات بدقة.
د - استبدال المدرس بأحد البرامج.

٢- يجب على الطالب لكي يحصل على أكبر فائدة من المادة المبرمجة أن:

أ - يقرأ المادة ككتاب دراسي فحسب.
ب - يتذكر الاجابات على الاسئلة ذهنيا.
جـ - ينسخ المادة.
د - يكتب الاجابات على الاسئلة.

٣- أهم قيمة للمادة المبرمجة هي:

أ - أنه يمكن للمدرس أن يحصل على اجازة بينما يباشر الطلبة العمل على المادة.
ب - أنه يمكن استخدام المادة المبرمجة لعدة سنوات دون حاجة الى المراجعة.
جـ - أن عددا لا نهائيا من الطلبة يمكنه الافادة من تجارب العديد من الخبراء.
د - أن المواد المبرمجة قليلة التكاليف.

٤- ما هو البند الذي يفتقر اليه الهدف الجيد؟

أ - الهدف المنصوص عنه بعبارات سلوكية .
ب - الظروف التى يعمل الطالب فى ظلها .
جـ - قائمة بالموارد المطلوبة .
د - نوعية العمل المتوقعة .

٥- أى من هذه البنود يعتبر هدفا ذو صياغة صحيحة ؟

أ - معرفة قيمة تنظيم الاسرة .
ب - تفهم مضار الاجهاض .
جـ - تقدير مزايا الاسرة الصغيرة .
د - استعراض ثلاثة آثار لموانع الحمل .

٦- يطلق على طراز المادة المبرمجة الذى يتم به تحديد مسار الدارس بواسطة الاجابات التى يبديها أنه :

أ - خطى
ب - متشعب
جـ - متسلسل
د - موجـه .

٧- اعطاء ايماءات الاجابات عن الاسئلة للدارس تطبيق لمبدأ :

أ - اليقظة
ب - الشطب
جـ - التأكيد
د - التشكيل .

٨- أول خطوة فى البرمجة هى :

أ ـ صياغة الكوادر
ب ـ تجربة الكوادر
جـ ـ صياغة الاهداف
د ـ تقييم الكوادر.

٩ـ أى مما يأتى لسنا فى حاجة اليه فى البرمجة؟

أ ـ المستشار المساعد
ب ـ الاخصائى فى الموضوع
جـ ـ الخبير اللغوى
د ـ خبير البرمجة.

١٠ـ تعتبر الاداة المبرمجة جيدة اذا :

أ ـ حقق نصف الطلبة ٥٠٪ من البنود
ب ـ حقق ٦٠٪ من الطلبة ٧٠ بندا من البنود المائه التى يتضمنها الاختبار
جـ ـ حقق ٧٥٪ من الطلبة ٧٥٪ من البنود التى يتضمنها الاختبار
د ـ حقق ٩٠٪ من الطلبة ٩٠٪ من البنود التى يتضمنها الاختبار.

١١- أفضل نسبة لاختبار المادة المبرمجة أثناء عملية تطويرها هى :

أ - واحد الى واحد
ب - واحد الى عشرة
جـ - واحد الى مائة.

١٢- يمتاز برنامج سكينر (SKINNER) بالآتى :

أ - تقديم فكرة واحدة فى المرة الواحدة
ب - تقديم العديد من الأفكار فى لوحة واحدة
جـ - مطالبة الطالب باختيار احدى الاجابات
د - مطالبة الطالب بتقديم العديد من الاجابات.

١٣- ما الذى تتوقع تحصيله من هذه الدورة العملية؟ وما هو فى تقديرك أفضل الوسائل لتحقيق ذلك؟

فى غاية الأهمية أن يتمكن الدارس من معرفة نتائج هذا الاختبار - وهذا هو سبب ذكر الاجابات فى الصفحة التالية.

الاجابة على اختبار استرجاع المعلومات للدارس

١- ب
٢- ب
٣- جـ
٤- د
٥- جـ
٦- أ
٧- أ
٨- جـ
٩- أ
١٠- د
١١- أ
١٢- أ
١٣- ؟

تقيـــــــيم

يعتبر استرجاع الدارس للمعلومات عنصرا أساسيا للتصميم الدراسى . وسوف تحدد المعلومات التى يتم جمعها من الدارسين فعالية الطبعة التالية (المراجعة) من النموذج . وسيساعد استرجاع المعلومات فى صياغة نظام دراسى فعّال اذا تـــم جمع المعلومات وتبويبها وتحليلها واختصارها وكذا تبادلها بين المصمـــــين التعليميين الذين يراجعون المادة .

وسوف تساعد المعلومات صانعى القرار كثيرا عند توجيههم للنظام التدريبى .

نقد للدورة من الدارسين للمبرمجين لأغراض التغذية المرجعيـــة

أولا - ضع دائرة على العبارة الأقرب الى رأيك .

١- أهداف الدورة هى :

أ - مقررة أو مكتوبة بعناية .
ب - مقررة أو مكتوبة ولكنها لم تكن كلها واضحة بالنسبة لى .
جـ - مقررة أو مكتوبة ولكن كان معظمها غير واضح بالنسبة لى .
د - لم تكن مقررة أو مكتوبة .

٢- كانت ادارة مضمون الدورة بمستوى غالبا ما كان :

أ - مناسبا لخلفياتى .
ب - سهـل جدا .
جـ - صعب جدا .
د - غير مناسب لخلفياتى .

٣- اعتقد أن تنظيم مضمون الدورة كان :

أ - واضحا للغاية ومفيدا ؛ ممتازا
ب - فى معظمه واضحا ومفيدا ؛ جيدا
جـ - بعض الموضوعات منظمة بطريقة واضحة ومفيدة بينما البعض الآخر غير واضح أو مفيد ؛ متوسط
د - كان التنظيم الظاهر لهذه الدورة قليلا ؛ ضعيف .

٤- بعد قراءة كتيب الدورة، أعتقد أنه :

أ - مستند مكتوب جيدا ومفيد فى نفس الوقت .
ب - مستند مكتوب بطريقة متوسطة ولكنه مع ذلك مفيد .
جـ - مستند ردىء الكتابة ذو فائدة محدودة .
د - مستند ردىء الكتابة ولا فائدة له .
هـ - لا يوجد كتيب للدورة .

٥- الوقت اللازم لاداء الواجبات المنزلية كان :

أ - معقولا
ب - غير معقول
جـ - ضائع اذ كانت هذه الواجبات "عملا ضائعا"
د - لم تكن هناك واجبات فى هذه الدورة .

٦- الزمن المكرس لهذه الدورة كان :

أ - كافيا
ب - طويل جدا
جـ - قصير جدا
د - يجب أن تستمر هذه الدورة ـــــــ يوما .

(تابع) نقد للدورة من الدارسين للمبرمجين لأغراض التغذية المرجعية

٧- عموما، اعتقد أن هذه الدورة كانت:

أ - ممتازة
ب - جيدة
جـ - متوسطة
د - مضيعة للوقت والمال .

٨- على ضوء أهداف الدورة والمهارات المطلوبة للتفهم الهادف لأدواتها سوف:

أ - ازكى هذه الدورة لاحد اصدقائى بدون تحفظات
ب - ازكي هذه الدورة مع بعض التغييرات الممكنة
جـ - لا أزكـــى بهذه الدورة مالم تجر فيها تعديلات محددة
د - لا أزكـــى بهذه الدورة مهما كانت الظروف.

٩- للدورات المقبلة، يجب:

أ - عدم اجراء أى تعديلات جوهرية
ب - اجراء المزيد من التطبيق العملى لأدوات الدورة
جـ - زيادة الجانب النظرى كأساس للتعرف على الادوات
د - زيادة " التوازن" بين الجانب النظرى والتطبيق العملى .

١٠ - كيف علمت بهذه الدورة :

أ - صاحب العمل
ب - صديق
جـ - جدول
د - محاضرة
هـ - غيره ———

الوحدة : _____

الاسم _____ الدورة _____ التاريخ _____

ملحوظة: لتركيز التعليم على الدارس يجب استيفاء هذا النموذج واعادته للمبرمج .

ثانيا : الرجا وضع دائرة حول الرقم الذى يمثل درجة موافقتك على كل عبارة من العبارات الآتية . اقرأ كل بند بعناية .

	موافق بشدة	موافق	غير موافق	غير موافق بشدة	بدون رأى
١- كان مضمون الدورة مفيدا لتنميتى المطبعية .	٥	٤	٣	٢	١
٢- كان مضمون الدورة ما توقعته .	٥	٤	٣	٢	١
٣- كان مضمون الدورة معقدا جدا .	٥	٤	٣	٢	١
٤- كان مضمون الدورة بسيطا جدا .	٥	٤	٣	٢	١
٥- كان مضمون الدورة موافقا للعصر .	٥	٤	٣	٢	١
٦- شعرت أثناء الدورة بأننى محل التحدى للتعليم .	٥	٤	٣	٢	١
٧- كانت أدوات الدورة فى أغلب الاوقات مقدمة بطريقة مشوقة .	٥	٤	٣	٢	١
٨- مضمون الدورة كان منسقا بوجه جيد بين المعلمين .	٥	٤	٣	٢	١
٩- كان المعلمون مستعدين جيدا لمعظم الفصول الدراسية .	٥	٤	٣	٢	١
١٠- كان المعلمون حسنى الاطلاع فى مجال كل منهم .	٥	٤	٣	٢	١
١١- فهمت بوجه عام ماكان مطلوبا منى أن اتعلمه فى هذه الدورة .	٥	٤	٣	٢	١
١٢- تلقيت خلال الدورة معلومات كافية عن الموضوعات التى لم افهمها .	٥	٤	٣	٢	١
١٣- كانت تتم الاجابة عادة على الاسئلة التى تثار أثناء المحاضرات بما يرضينى .	٥	٤	٣	٢	١
١٤- كانت خلفياتى مناسبة للنجاح فى هذه الدورة .	٥	٤	٣	٢	١
١٥- الاساليب الدراسية المستخدمة فى هذه الدورة كانت فعالة فى تعليمى .	٥	٤	٣	٢	١
١٦- تضمنت الدورة عددا كافيا من التمارين العملية .	٥	٤	٣	٢	١
١٧- توزيع الادوار أثناء الدورة كان مفيدا فى تعليمى .	٥	٤	٣	٢	١
١٨- كانت النوعية الانتاجية للادوات السمعية والبصرية مناسبة فنيا .	٥	٤	٣	٢	١
١٩- ساعدت الادوات السمعية والبصرية على تفهمى للموضوعات المعروضة .	٥	٤	٣	٢	١
٢٠- تضمن الاختبار النهائى بكفاءة الموضوعات التى تناولتها هذه الدورة .	٥	٤	٣	٢	١
٢١- عموما ، كنت راضيا عن هذه الدورة .	٥	٤	٣	٢	١
٢٢- اعتقد أن مهاراتى الفنية ومعلوماتى قد تحسنت نتيجة لهذه الدورة .	٥	٤	٣	٢	١
٢٣- اعتقد أنه سيمكنى استخدام ما علمته فى هذه الدورة فى عملى الجارى .	٥	٤	٣	٢	١

٢٤- اعتقد أن أهم تعديل تحتاج اليه هذه الدورة هو : _____

٢٥- كان "أفضل" أجزاء هذه الدورة : _____

لا تكتب في هذا المكان

تقيـــيم (نموذج تبادلى)

أولا - العنوان _____

المؤلف _____

الجمهور المستهدف _____

الوقت التقديرى للعمل _____

مجموعة الادوات (أوراق العمل ، الشرائح ، الخرائط البيانية ، الخ)

_____

_____

_____

ثانيا - هل هناك أجزاء مناسبة من النموذج التعليمى غير مذكورة فى الاهداف الرئيسية والأهداف الفرعية ؟

نعم ☐ لا ☐

اذا كانت الاجابة بنعم الرجا تحديد الجزء .

ثالثا - هل نموذج التصميم :

	نعم	لا
أ - مناسب للجمهور المقصود ؟	___	___
ب - واضح ، دقيق ، فى صميم الموضوع ؟	___	___
جـ - يقوم بالاستخدام المناسب للبيانات والرسوم البيانية والشرائح . . الخ ؟	___	___
د - دقيق وواقعى ؟	___	___
هـ - منظم ؟	___	___
و - مشوق ؟	___	___
ز - يقدم بادراك الادوات اللازمة لتحقيق الهدف ؟	___	___
ح - يحتوى على المعلومات اللازمة الاجابة على جميع بنود الاختبار النهائى ؟	___	___
ط - متدرج من اليسير الى المعقد ؟	___	___

اذا اشرت لا بالنسبة لأى بند من البنود الواردة بعاليه الرجا ذكر السبب .

رابعا - هل هناك تعليمات واضحة لما يمكن للدارس أن يفعله بعد اتمام المجموعة بنجاح ؟

نعم ☐ لا ☐

خامسا - هل يقدم التدريب العملى بوجه مستمر؟

نعم ☐ لا ☐

سادسا : هل هناك اطار عام للمراجعة؟

نعم ☐ لا ☐

سابعا : الرجا التعليق على أى مظاهر أخرى لنموذج التعلم أو الاهداف أو بنود الاختبار النهائى تشعر بأنها فى حاجة الى المراجعة.

هل أسلوب العرض هو أفضل الأساليب؟

نموذج تقييـــم (نموذج تبادلي)

التعلـــم المبرمـــج

العنوان _____

١- هل يؤكد البرنامج استجابة الدارس؟

٢- هل التعلم متدرج من اليسير الى المعقد ؟

٣- هل أسلوب البرمجة مناسب لوطيعة التعليم موضوع البحث؟

٤- هل مبدأ " الفكرة الحرجـة " منفذ في بناء كوادر البرنامج ؟

٥- هل هناك دليلا على التعجيل الزائد ؟ اذا كانت اجابتك بنعم أوصف باختصار طبيعة التعجيل الزائد .

٦- هل تعتبر وسائل العرض مناسبة من وجهة النظر الحسّية؟

٧- عند استخدام اللوح ، هل هي مفيدة في وطيفتها التعجيلية؟

٨- هل حظي البرنامج باهتمامك؟

قيّم البرنامج في الدرجات الواردة فيما بعد بالتأشير على الدرجة التي تراها مناسبة:

ضعيف جيد ممتاز

تعليقاتـــك :

وهذا نموذج قصـــير :

ورقـــة تقيـــيم

نرجو ان تكون راغبا فى تقييم فعالية هذا التعليم موضحا مدى اعجابك به والانتقادات التى قد تكون لديك والمقترحات التى تراها لتطويره .

هل ترى أن المجموعة ممتعة ـــــــ ، مثيرة للاهتمام ـــــــ ، سهلة ـــــــ ، صعبة ـــــــ

تعليقاتك :

هل كانت هناك أجزاء أو فقرات وجدت انها غير مناسبة ؟

هل ساعدت الرسوم التوضيحية على فهمك للموضوع أم أنك لم تبد اهتماما زائدا بها ؟

تعليقاتك :

صممت هذه المجموعة كجزء من مجموعة أكبر ؟ أيهما ترى استخدامها ؟ كلاهما ؟

هل لديك أية تعليقات عن المظاهر التعليمية الشاملة للمجموعة ؟

تعليقاتك :

المراجع:

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Appendix D

A MANUAL FOR HEALTH TRAINERS IN EGYPT
(March 1980)

PROGRAMMED INSTRUCTION AND PROGRAMMED LEARNING

A MANUAL FOR HEALTH TRAINERS

IN EGYPT

March 1980

INNOVATIONS IN TRAINING SYSTEM DESIGN

A. Life long learning is an absolute necessity to those serving the great needs in public health. This is not only at the individual level but is also true at the community level. Any community when confronted with a major stress will try to acquire skills to react to these problems and find skills to solve them through formal and informal training of the community members. Often in times of emergency, the need for training becomes a top priority. War is well known to us in Egypt, especially since we have sacrificed greatly to defend our nation. One of the lessons from these times of suffering is that when faced with a challenge our nation can train manpower in a variety of innovative, cost and time effect methods. Let us now wage a battle against preventable disease, sickness and conditions which attack the health of our people, especially at the lowest social and economic level. We can, and we will train the army of persons needed to work in every community in our nation to win this victory over preventable disease. We look forward to a time of peace and posperity through the practice of public health for all.

by: Dr. A.F. El Sherbini
Professor and Chairman
Department of Family Health
HIPH, Alexandria, Egypt

B. Teaching is the only traditional craft in which we have not yet fashioned the tools that make an ordinary person capable of superior performance. In this respect, teaching is far behind medicine where the tools first became available a century or more ago. It is, of course, infinitely behind the mechanical crafts where we have had effective apprenticeship for thousands and thousands of years. (THE AGE OF DISCONTINUITY).

by: Peter F. Drucker

C. The development of self-instructional, self-testing, easily-understood materials of instruction can be revolutionary. They can break the grip which inflexible requirements of time and place of instruction now hold on schools and college. Our present focus of attention is often on the teaching and not on the learner. There can be learning without teaching and teaching without learning. If students learn well, they have been taught well ----- no matter who taught them or what instructional materials were used.

LETTER OF INVITATION

This letter is sent in advance to address the question of why a workshop is being held and to assist participants in their preparation.

Dear ....

The High Institute of Public Health, Department of Family Health, is sponsoring a workshop on training methods in Family Health programs to held...

We espect this workshop to provide an exciting opportunity to exchange ideas and to explore new instructional training approaches. The first day will be dvoted to a discussion of innovative indigenous, localized instructional methodologies.

We anticipate that during the workshop, you, as a participant will design and create an instructional topic consistent with the theme of the seminar: that is, the development of family health. You will then formulate instructional objectives, you will create an easily replicable, individually paced, programmed-learning unit.

A team of instructional development specialists and health educators will assist you and your fellow participants in designing and producing your unit. In the individual and group processes of preparing these units, each participant should be able to discover ways in which programmed-learning materials can be useful in facilitating instruction in his/her own institutions. Discussions will also be oriented towards finding practical means for sharing materials, especially those programmed-learning units finished in the workshop.

To make the workshop a highly productive experience for all, we urge you to make the following preparations:

1. Make a preliminary choice of a topic (relating to the theme of the seminar/workshop) on which you can develop an instructional unit. The average learner in your program would take 30 to 60 minutes to complete this unit. You may want to related your topic to any of the topics suggested on the next page or choose one which you think relevant to your program.

2. It is very important that you bring with you the workshop all the references, books, photographs, 35mm slides or other materials which you will want to use in producing your programmed-learning unit.

3. Prepare to spend three days of concentrated effort in developing and learning various phases of the design, development and effective use of materials in programmed-learning form. These phases include clearly

defining instructional objectives, choosing learning strategies which will help the learner to accomplish those objectives, and designing a post-test, which will allow the learner to measure his learning achievement. To further prepare for this workshop the attached handouts are provided for your advance study. Please review them carefully and bring them to the workshop on .....

For some workshop participants, this may be a first encounter with a relatively new but proven instructional approach, and we will make every effort to assist in your exploration of the potentials of this method. The overall objective of the workshop is to enable participant to:

(1) master the methodology of an instructional approach for teaching family health-related topics to others; and

(2) create one unit on a topic related to the theme of the seminar/workshop.

We are confident that this seminar/Workshop will be a successful and rewarding experience for all of use.

Sincerely yours,

Dr. Ahmed Fouad El Sherbini
Professor and Chairman
Department of Family Health
HIPH, University of Alexandria
Alexandria, Egypt

Suggested topics:*

1. Maternal/Child Health
2. Nutrition
3. Family Planning - why ?
4. Family Planning methods
5. Minor medical care - first aid
6. Pre-natal counseling
7. Infant care
8. Pre-school child care
9. In-school child care
10. Communicable diseases
11. Sex education
12. Hygiene
13. Other

For use by (indicate type (or) level of workers)

- Nurse
- Midwife
- Social worker
- Daya
- TBA
- Physician
- Family head
- Local leader
- Teacher

*The above topics are merely suggestions. The level of need in the community and point of intervention will be a major consideration

UNIVERSITY OF ALEXANDRIA
HIGH INSTITUTE OF PUBLIC HEALTH
DEPT. OF FAMILY HEALTH,
165, El-Horria Aven.
El-Hadrah, Alexandria.

جامعة الإسكندرية
المعهد العالي للصحة العامة
قسم صحة الأسرة
١٦٥ شارع الحرية-الحضرة الإسكندرية

SEMINAR/WORKSHOP ON

PROGRAMMED LEARNING FOR FAMILY HEALTH WORKERS

REGISTRATION*

Name: _____

Title or Position: _____

_____

School, Faculty or Department: _____

_____

Field of Special Interest: _____

_____

Educational Background: _____

_____

Postal Address: _____

_____

*This registration form is for administrative purposes and retained by the secretarial staff as a ready reference for producing a list for the participant to facilitate their getting acquainted with others in the workshop.

TRAINER'S REGISTRATION SHEET*

Title of the Course _____

Period of the Course _____

Name _____ (Postal Address) _____

Place and Name of Employment _____

Title of Position _____ Governorate _____

Last Qualification _____ Place _____ Date _____

Qualification before employment _____

Training Course Attended 1. _____ 2. _____

3. _____ 4. _____

Years of service at the present Post _____

Previous experiences and function:

		Date	
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

Education Experience		Degree
1.	_____	_____
2.	_____	_____
3.	_____	_____

Field of Special Interest Specialty _____

Place of Birth _____ Date _____

-

Family Planning Experience (briefly describe)

MCH Experience

Field Experience

Reactions to previous training program (Confidential)

Place	Length	Reaction
_____	_____	1. Very Insufficient
_____	_____	2. Insufficient
_____	_____	3. Sufficient
_____	_____	4. Very sufficient

Motivation to take training course (circle one)

1. Not at all willing
2. Not willing
3. Willing
4. Very willing

Previously used training methods:

- Lecture
- Discussion
- Programmed-learning (Self-Instruction)
- Case method
- Films (Audio-visual)
- Simulation games
- Practical - Real world experiences - Clinical
- Learning by objectives
- Others (Please list)

Please list (10) tasks or activities which you carry on on day-to-day basis in performing your present job. Group them under planning, administration, teaching, supervising, technical or professional, etc...

Of those (10) tasks, put a star (*) beside the three tasks about which you feel well-trained, well-experienced.

(You have no problems with these tasks, you can do them well)

Of these (10) tasks, put a cros (X) against those with which you would like further information/skill/experience.

When you leave the HIPH training program what job/position will you hold? What are the requirements of the job? Also, Is there a job description:

(a) If there is a job description, list activities.

(b) If there is not one, prepare your own list of tasks/activities/ responsibilities needed in your job.

Expectations of Course:

The HIPH is anxious to tailor the training program to your needs and interests. What suggestions do you have that would help faculty staff recognise and meet your own specific needs and interests.

In addition to the above information, please be ready to discuss the following:

1. What are your goals/Expectations of this course?

2. What are the needs of the people you serve?
(in terms of priorities)

---

* For learner needs assessment, this form is immediately utilized for a preliminary needs analysis, tabulated and results are made available to directors of the health systems training projects, facilitators and resource persons in the project. Eventually this information will also be shared with a wide variety of health manpower decision makers through final workshop reports.

Task Description	Mastering Degree				Need to develop	
	Excl.	Good	Mod.	Poor	Yes	No
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____
_____	/ /	/ /	/ /	/ /	_____	_____

SUGGESTED SCHEDULE OF WORKSHOP ON PROGRAMMED-INSTRUCTION

(to be negotiated)

DATE/DAY	TIME	TOPIC ACTIVITY
		Group Dynamics - Introduction Introduction to Agenda Programmed Instruction
		a) Overview
		b) Literature review of research on the effectivity of Programmed-Instruction
		Discussion/Reactions Training-Research Consortium Programmed-Learning Model
		Discussion/Reactions
		Selection of Topics to be programmed
		Summary of Learning Guidelines on Designing Programmed Learning Units
		Evaluation of sample prototype materials
		Behavioural Objectives
		Development of Programmed Instruction
		Appropriate Educational Media Presentation
		Designing and Constructing Consistent Post Tests
		Evaluation
		Development of programmed learning units (continuation)

DATE/DAY	TIME	TOPIC ACTIVITIES
		Exchanging of Units
		Revision of Programmed Learning Units
		Appropriate Educational Media Presentation or continuing refinement of the Programmed Learning Unit
		Exchanging Units
		Trainer-Learner Interview
		Revision of Programmed Learning Units
		Participant's Evaluation of Workshop
		Continuing Revision of Programmed Learning Units
		Finalization of Programmed Learning Units
		Finishinf and testing the units
		Staff Evaluation of Workshop, Feedback of Participant's Evaluation of Workshop

Here are some lackground notes on self-instruction:

SEMINAR-WORKSHOP ON PROGRAMMED INSTRUCTION

AN OVERVIEW OF PROGRAMMED INSTRUCTION*

Intro-duction	Programmed instruction is the innovation which within the span of only twenty five years from its formal inception by B. F. Skinner in 1954 spread quickly throughout the world and is predicted to stay.
Varied Forms	From the original linear program of Skinner and the branching program of Crowder were born several concepts of programs such as: * self-learning units * self-learning kits * learning packages * Unipacs (short for unit packages) A self-learning unit is a program based on a unit of subject matter. A self-learning kit is similar to the self-learning unit. Learning packages are more comprehensive in nature as they include not only programmed units but also slides, filmstrips, and other materials needed to develop a segment of subject matter--all in one package.
Use in New Settings	The rapid adoption of programmed instruction in its varied forms is clearly related to new school organizational set ups or systems such as: * II - individualized instruction * IPI - individually prescribed instruction * CAI - computer progression scheme * Project IMPACT - instruction managed by parents, adults, community and teachers * Non-graded school * Open university * Mastery learning * Distance Learning

*Dr Eufrosina N. Millan. A Handbook on Programmed Instruction, Manila, Philippines, 1972

Use in several subject fields

Programmed instruction is now utilized in many subject areas. The APLET (Association for Programmed Learning and Educational Technology) Yearbook of Educational and Instructional Technology of 1972-73 lists 52 subject fields among which are:

- education
- industry
- medicine
- economics
- carpentry
- shoe making
- veterinary practice
- religion
- electricity and electronics
- engineering
- geography
- geometry
- mathematics
- languages

Trends

- Programmed instruction in its varied forms has been introduced in many parts of the world. The schools of England use it extensively, not only individually but in consortium among institutions. The Association for Programmed Learning and Educational Technology based in London which includes members from other nations has done a lot to promote programmed learning not only in Great Britain but also in other parts of the world.

- Individualized Instruction has spread to many schools and the use of self-learning units and packages has likewise increased worldwide.

- There is a general trend to combine the basic forms of programming or to modify them.

Nature and characteristics

Programmed instruction is a method by which a learner learns by himself from carefully sequenced materials. These self-instructional materials:

- are presented in small steps
- are logically sequenced
- require active responding
- give immediate feedback to inform the learner the correctness of his answer, thus giving reinforcement
- involve constant evaluation, since most frames contain test question aside from the post-test
- follow the process of learning as they are constructed from the simple to the complex or from the easy to the difficult.

What PI is <u>not</u>

- A programmed material is not a test. It is a teaching material in which a bit of information is given which the learner is asked to apply in a new situation.
- Programmed instruction is not a cure-all. It is not the only method but should be used with other methods. A teacher is still needed although in a different role--that of a director or manager of learning.
- Programmed instruction is not an audio-visual aid. Programmed learning is an effort to complete the educational model--that is:

  Stimulus → Response → Reinforcement

  An audio-visual aid is only a stimulus.

Values of Programmed Learning

- A good programmed material focuses on just the essentials.
- More material is covered in a short time, hence helps solve the problem of knowledge explosion.
- Makes mastery learning possible even for the dull pupils.
- There is satisfaction resulting from the knowledge of achieving the correct answers.

* The expertise of subject matter specialists can be shared by an infinite number of students and teachers.

* High Standards of performance are maintained through good quality programs.

* Absent students could easily catch up with their peers.

* Creative talents of educators and trainers are tapped.

Limitations

* It takes great technical skills to make a good program.

* Very few programs are available in the market.

* It is costly to produce the materials at the beginning. (Not recommended for limited numbers of learners in total program.)

Types of Programmed

There are two basic types of programs:

* The Skinner program which is also called:
  - Linear because it follows one line of thought, i.e., the learner proceeds from one frame to the next.
  - Constructed-response because the learner constructs or thinks out his answers.
  - Extrinsic because the path of the learner is predetermined by the programmer.

* The Crowder program which is also called:
  - Multiple-choice program since it presents multiple-choice questions after the given information.
  - Branching program because the learner does not follow one line of thought but detours to other lines of thought, depending on his choice.
  - "Scrambled book" because for every choice of answer the learner is told to turn to a different page.

- Intrinsic program because the path of the learner is determined by his own choice of answer

---

Steps in Programming

There are five basic steps in preparing a programmed material:

1st Step

* State the objectives:
  - in behavioral (observable) terms
  - with the condition or conditions under which the learner must perform
  - with the quality of performance expected

The objectives should also consider the outcomes of learning expected such as:

- The cognitive (knowledge, comprehension, application, analysis, synthesis, and evaluation)

- The affective (attitudes, values, interests, appreciations)

- The psychomoter (skills, abilities habits)

2nd Step

* Write the post-test
  - Each objective should have a corresponding test item or items.

- Questions should be of varied types.

- Questions should be constructed according to the principles of test construction.

3rd Step * Write the program

- Present material in several ways (linear, branching, or a combination or modified form).

- Use illustrations, charts, slides, when necessary.

- Provide enough practice frames for the learner to apply what he had learned.

- Check for adequacy, grammar, etc.

4th Step * Try out the program

- First on a one-to-one basis. Observe reactions specially on difficult parts.

- Next to a small group

- Then to a big group

5th Step * Revise the program

- Consider the observations made during the try out.

- More frames may have to be constructed.

Let us Now Review the Characteristics of Programmed Learning As Compared with Traditional Teaching

Programmed Learning:

1. Is learner centered NOT teacher dominated.
2. Contains a clear statement of objectives.
3. Uses criterion referenced post-tested as evidence of results.
4. Provides information in sequential-logical small steps which are easier to assimilate.
5. Is concise (takes less time)
6. Is individually paced.
7. Uses any educational method(s) as appropriate to content.
8. Gives frequent feedback - knowledge of results.
9. Allows response by students.
10. Gives reinforcement to learners.
11. Assures uniform quality control in educational programs.
12. Is useful when learners are geographically dispersed (no classroom necessary).
13. Allows teacher time to give to individual learner needs and thus, is more interesting from teacher's point of view.

Please make sure your module includes as many of the above traits as possible.

The Context of Self-Instruction is within a process of a systematic instruction program. So, what is systematic instruction ?

SYSTEMATIC INSTRUCTION (SUMMARY)*

The model for systematic instruction is similar in most instances to the process for planning programmed learning. The first step involves analyzing the problem. What does the learner want/need to know, do or feel? Next a consideration of the context involves an inventory of the setting with its resources as well as constraints. In order to understand what needs to be done in the learning experience it is important to subtract where the learners are now from where they should be. This equation produces what needs to be done in the instructional process.

A statement of what they will be able to do in terms of performance is the next step which comes about as objectives are formulated. These are evaluated by colleagues who are recognized and certified for their competence in the specific subject areas. When the objectives have been validated by these professionals the tests, pre- and post-tests, are created.

The next step is to choose a format as to how the curriculum should be organized. There are commonly five major instructional formats:

1) The lecture-discussion method.
2) Individualized instruction. (Programmed learning falls into this category)
3) Small group instruction.
4) Seminars.
5) Experiential learning.

Media is the next important consideration. How instruction is communicated is often a question with more than one answer. Just one medium is seldom adequate to reach all of the learners in any one group.

Evaluation is answering how successful the learning experience was to the learner and also to the teacher and educational designers. The response in the form of an orderly collection of data is the basis of the revision which is the final essential step to systematic instruction.

---

*Provided by the University of North Carolina School of Medicine, Office of Medical Studies, 1978.

Let's write our own module*

Programmed Instruction Project

1. Goal: Prepare a mixed format learning package using the principles of programmed instruction.

2. Constraints

   a. Use both linear and branching formats

   b. Select appropriate medium (appropriate for learning characteristics identified)

   c. Show evidence of field testing

3. Requirements:

   a. The program should use to the best advantage the (P.I.) principles presented in class.

   b. The program should attend to the constraints listed above.

   c. The program should include display formats (i.e., visual, verbal) which are appropriate for the learning task identified.

4. Procedures:

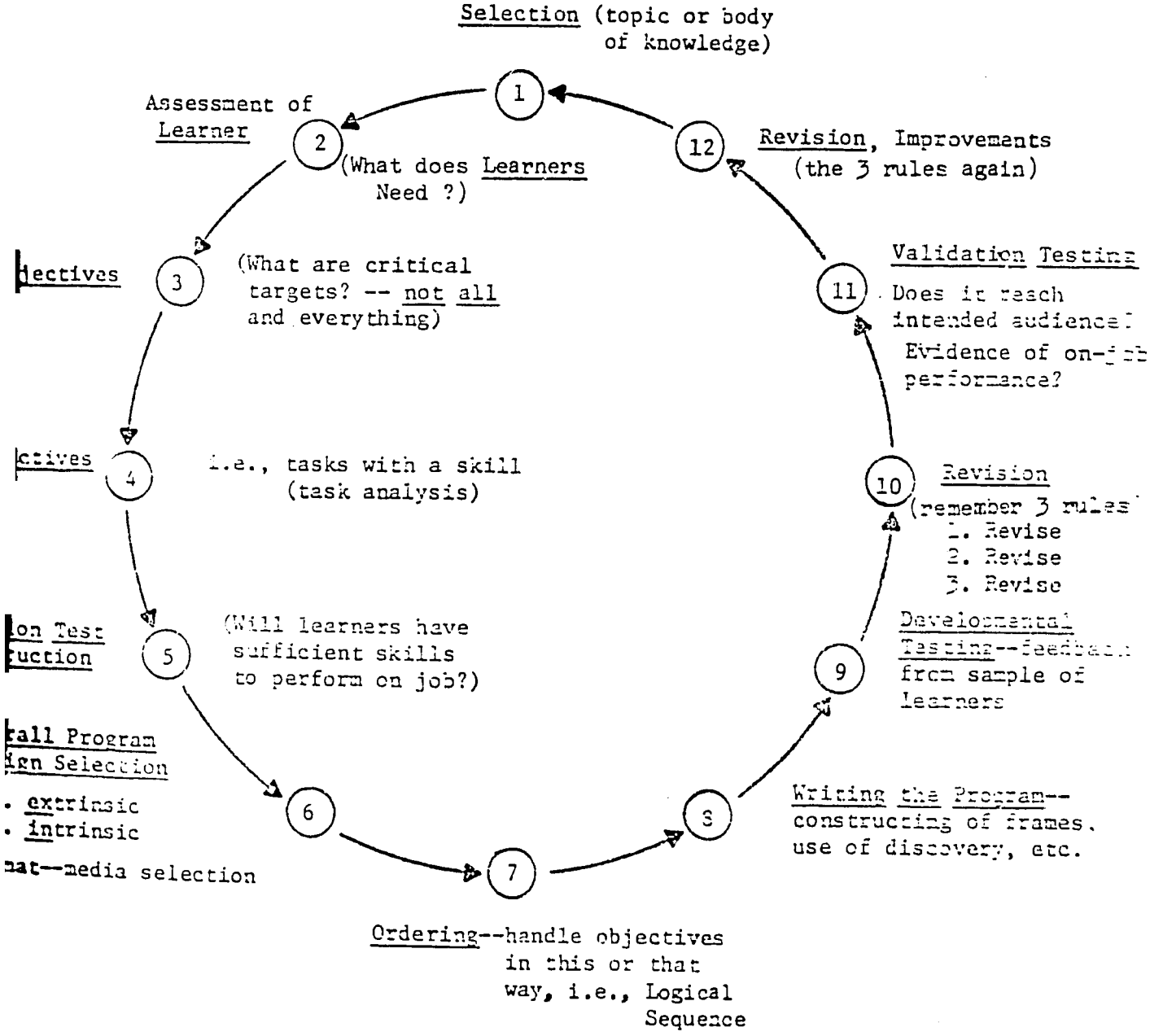
   a. Select topic to be programmed
   b. Assessment of the audience characteristics
   c. Objectives specified unambiguously
   d. Subobjectives are expressed
   e. Criterion Test is constructed
   f. Paradigm is selected
   g. Sequences are ordered
   h. Frames are constructed
   i. Sequences are tested
   j. Revisions are made
   k. Program is validated
   l. Revisions are made

*Many experts feel that it is not possible to write a training module in short intensive time periods. Experience has shown that it is not only possible but desirable since most trainers are busy people with a great deal of helpful experience.

In order to guide you on your journey through the wonderful world of Self-Instruction the following sequence of planning is provided....

the Self-Instruction Model

Process of Programmed Instruction



TASK: How to drive a car _____ setting up a Driver Training Program.

In order to build objectives it is important to be able to perform a thorough task analysis. Here is an excersize to assist you to learn this simple basic feat.

Task Description

The student will take a driver's training course to learn to drive a car safely. The course is administered by an instructor in a car with an automatic transmission. Some of the tasks he will be expected to perform correctly are the following: When approaching a stop sign, press down on the brake peddle. Having stopped the car, check to see that no cars are approaching. Then accelerate smoothly. When desirous of turning left at an intersection, turn on to do so, operate the switches that turn on and off the lights, windshield wipers, and defroster.

Now write a step by step analysis of this task.

In order to define a task it is helpful to break it down into a step by logical step task sequence. This is done by a process called "TASK ANALYSIS".

Objectives

1. When approaching a stop sign, the student will correctly and safely press down on the brake pedal and come to a stop.

2. Having stopped the car, the student will visually check cross traffic before proceeding, then accelerate smoothly.

3. When approaching an inter-section intending to make a left turn, the student will turn on the left-hand turn signal.

4. Having reached the inter-section, the student will correctly and safely turn left.

5. When told to turn lights on, the student will operate the light switch.

6. When told to turn the wipers on, the student will operate the wiper switch.

And here is another example to assist you in breaking down a task into a logical sequence of events which will assist the learner to accomplish the learning objective...

Task Description

The student will conduct an experiment in order to identify the basic structures of a leaf and will record his findings. He will be provided with a microscope and other necessary equipment. First, the student will turn the leaf over in order to expose the underside. Second, he will locate the breathing pores (or stomata) and the two guard cells on either side. Then he will draw a simple diagram and label the stomata and the two guard cells showing what he observed.

Next, the student will cut a thin cross section of the leaf with a razor blade. Then, he will place the cross section under the microscope so that he can examine the edge. The next task is to locate the plaisade layer, the epidermis, and the spongy layer. And finally, the student will draw a simple diagram and label the plaisade layer, and epidermis, and the spongy layer showing what he observed under the microscope.

Objective

Given the necessary equipment and instructions, the student will conduct an experiment in order to identify the basic structures of a leaf and will record his findings.

Subobjectives

1. Given a leaf, the student will turn it over to expose the underside.
2. The student will locate the stomata and guard cells.
3. The student will draw a simple diagram of a leaf, including stomata and guard cell.
4. The student will label the stomata and guard cells on his diagram.
5. Given a leaf and a razor blade, the student will cut a thin cross section.
6. The student will place the cross section under a microscope and adjust the microscope.
7. The student will use a microscope to locate the palisade layer, epidermis, and spongy layer in the cross section of a leaf.
8. The student will draw a simple diagram of the cross section, including the palisade layer, epidermis, and spongy layer.
9. The student will label the palisade layer, epidermis, and spongy layer on his diagram.

In writing your self-instructional module it will assist the learners to be given prompts (Hints). There are various kinds of prompts:

EXAMPLES OF THEMATIC PROMPTS

1. The brain "makes sense" out of the impulses carried from the cochlea by the _____ nerve.

2. Learning usually occurs when an individual's response is promptly rewarded or _____.

3. Reinforcement which consists of presenting south-after stimuli is called positive reinforcement, reinforcement which consists of terminating unpleasant stimuli (e.g., loud noice) is called _____ reinforcement.

4. It is easy to learn about the metric system when one thinks of the money system in relation to it. A dollar has _____ cents (pennies).

5. The Egyptian pound = 100 piasters. A meter has _____ centimeters.

6. Thus, a centimeter works somewhat like a cent. Just as 100 piasters is one Egyptian pound, 100 centimeters is _____.

7. Centigrade and Fahrenheit are both scales of temperature. Celsius is also a _____ .

8. Knowing that most metals expand when heated, and remembering that the period of a pendulum depends on the length of the rod, we would expect that a pendulum clock would _____ time on a cold day.

9. The Egyptian Flag is colored _____, _____ and _____ .

EXAMPLES OF FORMAL PROMPTS

1. Number of Letters:

   In the knee jerk or petellar-rendon reflex, the kick of the leg is the r _ _ _ _ _ to the tap on the knee.

2. Number of Words in A Response:

   To express action which was completed at an indefinite past time or which is still going on, we use the _____ tense.

3. Serial Responses:

   Like the Egyptian Flag, the Flags of Syria, Yemen, Libya, Iraq and Lebanon are _____, _____ , and _____.

4. Sound Patterns (rhyming):

   Nine times seven and just one more is eight time eight, or _____ .

5. Syntax:

   We say that the form BOY is singular but that the form BOYS is singular/plural _____ .

Understanding is a more complex behaviour and therefore the learner will be expected to behave differently than he would for just knowledge of the subject. If the learner can explain the function of the parts of the projector, and can explain how the projector works, we can say he has an _____ of projectors.

Here are some More prompting devises:

TECHNIQUES OF INTRODUCING CONTENT IN FRAMES

1. By definition:

   a. Use a common sense definition. Follow in the same frame with an example part of which pupil can formulate.

      Ex: A noun is the name of something.

      Chair is a noun because it is the _____ of a thing.

   b. Follow in another frame, with an example requiring the pupil to use the word define.

      Ex: Tree is a _____ because it is the name of a thing.

   c. Introduce contrast. Show what the concept is not and point out concepts easily confused which are not the same as the focal concept.

      Ex: Sing is not a _____ because it is _____ the name of something.

      In "Lita has a beautiful dress", dress is a _____ but beautiful is _____, the name of something.

2. By example:

   Ball, hat, dog, house--all these are names of things. They are called nouns. The name airplane is also called a _____.

3. By anticipation:

   The subject of a sentence is a noun and sometimes a verb form called a gerund which means doing something.

   Ex: In "The pupils study their lessons well", the subject

is _____. Pupils is a _____.

In "Swimming is a good exercise", the subject is _____.

Swimming is a verb form used as a noun and it is called a

_____.

4. By prompts:

a. Thru similarity

(1) of ideas: Just as the sun rises in the morning, the full moon _____in the evening.

(2) of signals: "Naturally" signals a common sense answer.

The roads were impassable after the floods

Naturally, many pupils were _____ in class.

(3) of grammatical construction:

The higher the altitude of a place the colder is the climate the lower is the place, the _____.

b. Thru constraint

(1) of ideas: Warm air rises; cold air _____.

(2) of signals:

+8 is greater than -2 and

+3 is greater than -10, but

____ 9 is _____ than -1.

(3) if grammatical construction

Same constructions limit the range of response.

The thicker the clouds, the (lighter, heavier) is the rain that falls.

c. Through echoic devices (imitative)

Bright pupils love to be challenged in their thinking, hence they should be asked _____ questions.

d. Hints: Reference to earlier learnings.

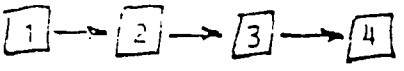
The term "principle" means "fundamental truth" or "basic law". The principles of teaching then means _____ of teaching.

Here is a glossary of key terms for Self-Instructional Programmers: TERMINOLOGY RELATED TO PROGRAMMED INSTRUCTION

Teaching machine - The vehicle that carries or presents programmed instruction. Th vehicle may be a printed page, film or computer based.

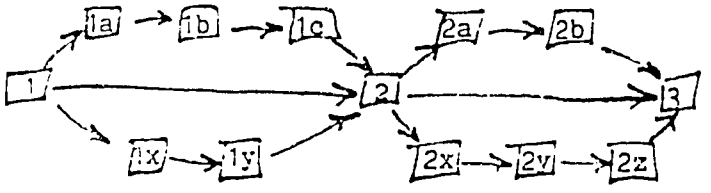
Thematic prompt - A cue to response that takes into account the knowledge the reade already possesses.

Linear program - A program in which each frame follows in order one after the other sers of the program must follow this sequence.



Panel - A diagram, chart or visual material that is referred to in a program but is arate from the frames in a program. It can be tipped into the pages of a program o up outside. The program is used as a visual referent while the reader is going thr the program.

Branching program - A program in which frames are sequenced in several orders and t user of the program tracks and program according to his response. Branching is an attempt to take into consideration individual differences.



Formal prompt - A cue to response that is based on the Form of the response.

i.e. - number of letters ---
letter cues PAR S
or rhymes

Scramble book - An example of Branching program technique. The reader progresses through the pages according to his responses rather than page by page in usual book technique.

Constructed response - User is called upon to respond by manufacturing his response opposed to being a multiple number of responses from which to choose.

Fading - The gradual withdrawal of cues to response.

Frame - Within a linear program each "bit" of information and its accompanying call response is called a frame.

Step - The planning decision regarding how much or how little to incorporate in a f

Terminal behavior - What is expected of the learner after the program.

Criterion behavior - The quantity, quality, and time expectations applied to specif activities called for a behavioral objectives.

Feedback - That information provided the learner that tells him if his response is appropriate or not.

Eventually you will be using visuals - graphics, pictures, film other Audio-visual to supplement your module. What decides what kinds of visuals you should use? Here are some guidelines: VISUALS

ual: A symbolic or pictorial representation.

uals can aid your teaching objectives in the following ways:
1. Attract and hold the student's attention
2. Clarify information
3. Provide a common reference for instructor and student
4. Overcome limitations of time and space (e.g. clinical cases).

rder to determine whether or not your self-instructional unit can benefit from the use of visual:

A. Examine your instructional objectives
B. Look at the characteristics of the available media (see chart).

k these questions:
1. Do I need visuals to complete this objective? (Will visuals add to my objective or will they distract from my teaching?)
2. Do I need more than one visual for this objective? (i.e. a series or a combination of different visual media.)
3. How close to real life does the visual have to be? (Can it be a graph or line drawing, or should it be a black and white or color photograph?)
4. Does the visual have to have color? (Color is particularly important for "recognition" or "diagnosis" objectives.)

SELECTIVE VISUALS CHART FOR SELF-INSTRUCTIONAL UNITS

	Variety of Presentation	Sample Verbs
PRINT	capitals, underlining, boxing, separating from text, different lettering, numbering	"define", "list", "explain", "discuss"
GRAPHS OR CHARTS	pictures, words, numbers, bar or broken line graph color or black and white	"relate", "assess" "recall", "select"
LINE DRAWINGS	simple line drawings with or without labels shaded line drawings with or without labels realistic or graphic, comparison drawings series of drawings, cartoons	"locate", "recognize", "identify", "compare"
BLACK & WHITE PHOTOS	printed with the text, added to appendix variety of sizes, comparison photographs series of photographs	"recognize, "identify", "demonstrate" "compare"
COLOR SLIDES	Attached to back of unit, realistic or graphic, close-up and distant shots comparison slides, series of slides	"distinguish", "diagnose","identify","compare"

LIST ADVANTAGES AND DISADVANTAGES OF EACH:

The sort of materials that can be considered "Ausio-visual Aids" are as follows:

Films

Film-loop

Videotape

Filmstrip

Slides

Transparencies

Chart/posters/maps/exhibition panels

Flannelgraphs

Flip-books

Flashcards

Photographs/negatives

Booklets/leaflets/pamphlets

"Realia" (real specimens)

Models

Gloves

Games

Advertising gimmicks

Records

Tapes/cassettes

Video-recordings

Chalk Board

Radio/Television

Question: How can the above be integrated into P.I.? Should they? Can th

And how about learning self-instruction by self-instruction ? Here is:
A SELF INSTRUCTIONAL UNIT ON SELF INSTRUCTION, Try it.

1.

Many leading psychologists and educators have made the prediction that _____ machines will cause a revolution in education.

FOR THE CORRECT ANSWER, TURN THE PAGE.

14.

THIS IS NOT QUESTION 2. QUESTION 2 IS ON THE NEXT PAGE.

active

You now know the first principle of programmed instruction: the principle of active _____.

27.

immediate

The student proceeds with confidence, since he is building his knowledge on a secure _____.

40.

small steps and therefore more successes

active response or participation

Isolated ideas are hard to remember. So-called "memory stunts" involve the linking together of _____.

53.

pacing
slow or
poor

The _____-pacing feature is inherent in the individualized nature of the question-answer cycle.

ANSWER TO Q. # 1:

teaching

NOW GO ON TO QUESTION 2.

2.

Instruction by teaching _____ is frequently called programmed inst_____.

FOR THE CORRECT ANSWER, TURN THE PAGE.

15.

response or participation

The program presents the subject matter in a series of _____ which gradually increase in complexity.

23.

foundation (or equivalent)

You have now learned the three main principles of programmed instruction:

a. _____ _____

b. _____ _____, and therefore few _____.

c. immediate _____.

41.

ideas, concepts (or equivalent)

A good program creates _____ between the different areas of a student's knowledge.

54.

So a fourth item can be added to the list of advantages: the _____-_____ feature.

ANSWER TO Q # 2:

machines
instruction

NOW GO ON TO QUESTION 3.

3.

"Programmed instruction" is an appropriate name for instruction by t_____ _____ because the actual teaching is done by the _____gram.

16.

steps

In the early stages of a program, the responses required may be as brief as a word or a syllable. Later in the program, much larger units such as _____ may be demanded.

29.

active participation

small steps, errors

confirmation

You may ask, "Don't such small easy steps slow the student down?" Not only don't they slow him down, they have the opposite effect: They _____ _____ _____.

42.

links or connections or cross-ties

Ideas are retained longer when they are linked together. A good program links ideas. Therefore a good program results in _____.

55.

self-pacing

The other three advantages lie in the improvement of:

a.

b.

c.

	4.
teaching machines program	In program _____ instruction, the program does the actual teaching; the teaching machine merely presents the _____ to the student.

	17.
sentences or paragraphs or statements	Each step the student completes adds a small but definite increment to his _____.

	30.
speed him up (or equivalent)	This statement is supported by an experiment which showed that making the steps smaller and more numerous can _____ (increase/decrease) the time needed to complete the program.

	43.
better retention (or equivalent)	This is another reason why you will experience no difficulty in remembering the contents of this program. In general, programmed instruction results in excellent _____.

	56.
speed of learning morale retention	These are not to be confused with the three principles of programmed instruction, which are: 1. 2. 3.

programmed

program

5. The program can be presented either by means of a _____ _____, or in the form of a book.

---

knowledge or understanding or mastery

18. Good students make fewer _____ on assignments and examinations than poor students.

---

decrease

31. Psychologists have found that even while learning, people would rather be right than _____.

---

retention

47. You also know three advantages of programmed instruction:

a. _____ of learning is increased.

b. The low error rate keeps _____ high.

c. _____ is improved.

---

active participation

small steps and therefore few errors

immediate confirmation

57. By programmed instruction, a student can be taught how to develop a mathematical proof or how to analyze a problem. Are these examples of conceptual or factual materials?

teaching machine	6. The effectiveness of programmed _____ does not depend on whether a machine or a _____ is used to present the program.
mistakes or errors	19. Good students make fewer errors than poor students. They may learn _____ (faster/more slowly) and retain their knowledge _____ (longer/less long).
wrong	32. When a student makes frequent errors, he gets discouraged and bored. If you wanted to reduce discouragement and boredom, what would you do to the size of the steps?
speed morale retention	45. Which feature of programmed instruction prevents the accumulation of errors and misconceptions?
conceptual	58. The program you are reading attempts to teach the concept of p_____. Accordingly, it deals with a combination of _____ and factual material.

7.

instruction

book

As you may have guessed, what you are reading is a _____ presented in a book form.

20.

faster

longer

It is possible to learn from one's errors. But one can learn to avoid _____ even more efficiently without actually making them.

33.

reduce it or make it smaller

(or equivalent)

In addition to improving morale, the low error-rate increases the _____ _____ (complete the statement.)

-3.

immediate confirmation or correction

Three principles of programmed instruction are:

1.

2.

3.

59.

programmed instruction

conceptual

When learning from a film or lecture, the slow and fast learners are forced to move at the same speed. With programmed instruction, on the other hand, _____ _____

(complete the statement)

program	8. This program both illustrates and teaches the principles of _____ instruction.
errors or mistakes	21 In a well-designed program the _____ are so small that the student is usually right. He rarely makes a _____.
speed of learning	34. Two desirable effects of programmed instruction are: a. Increased _____. b. Improved _____.
active participation small steps and therefore few errors immediate confirmation	47. What happens if a student stops to think while listening to a lecturer?
every student can proceed at his own pace (or equivalent)	60. A program can teach the student to answer any question. But only a teacher can teach the student to _____ questions.

programmed

9.

A good program builds up the student's knowledge in a series of small steps. You are now at _____ number 9 of this program.

---

steps

mistake or error

22.

Now you know two principles of programmed instruction:

1. A _____ _____.

2. _____ steps, so that the student will make few _____.

---

improved morale

increased speed of learning

35.

You also know three principles of programmed instruction:

1. _____ _____

2. _____ _____ and therefore _____ _____.

3. _____ _____

---

he falls begind or he misses part of what is being said

(or equivalent)

46.

While working on a program however, the student can stop and _____ whenever he wishes to do so, without having to worry about falling behind.

---

ask or raise

51

When the student wishes to discuss an idea, he needs a _____.

	10.
step	Each step is a question, an instruction, or a fill-in item. Some programs are thousands of _____ long.

	23.
active response or participation small, errors or mistakes	As soon as the student has made his response, he finds out _____. (complete the statement.)

	36.
active participation small steps, few errors immediate confirmation	People remember their successes better than their failures. Smaller steps result in more successes. What effect would you expect small steps to have on retention?

	47.
think or reflect or ponder or analyze or review	The relentless pace of a film or lecture tends to _____ prolonged reflection.

	62.
teacher (or equivalent)	A good program will teach better than a textbook, film, or lecture. But it can never replace a good _____.

steps

11. Each _____ of a program enlists the student's active participation by requiring him to answer a _____, follow an _____, or fill in a _____.

---

the correct answer

or

whether he was right or wrong

(or equivalent)

24. If he makes an error, it is immediately _____.

---

improve it

(or equivalent)

37. When a person writes something, he is more likely to _____ it than when he merely reads it.

---

discourage or inhibit

(or equivalent)

50. This illustrates another important advantage of programmed instruction: Every student can progress at his own natural _____.

---

teacher

63. List the three main principles of programmed instruction:

1.

2.

3.

step

question

instruction

blank

His _____ may be just a syllable or an entire paragraph, but it always requires active participation. 12.

---

corrected

The im_____ confirmation which the student receives for every correct _____ reinforces his knowledge as he acquires it. 25.

---

remember or retain

Writing is an active response. What effect would you expect the principle of active response to have on retention? 38.

---

pace

This self-pacing feature permits the brighter student to move forward more _____ than the slower student. 51.

---

active participation

small steps and therefore few errors

immediate confirmation

Now list three advantages that programmed instruction has over other methods: 64.

a.

b.

c.

response or answer

13. In reading a book, listening to a lecture, or watching a film, the student can remain passive. In working through a program, on the other hand, he has to be _____.

FOR QUESTION 14, TURN BACK TO PAGE 1.

---

immediate

response or answer

20. The accumulation of errors and misunderstandings is often a major source of demoralization. This can be prevented by _____ confirmation or correction.

---

improve it

(or equivalent)

39. Now you know two reasons why programmed instruction improves retention:

a. (Remember principle 2.)

b. (Remember principle 1.)

---

rapid or quickly

52. The self-p_____ feature also insures that the _____ student does not get lost.

---

improved morale

increased speed of learning

improved retention

self-pacing feature

(any three are correct)

65. These are some of the considerations responsible for the prediction that programmed instruction will bring about a revolution in _____.

In order to let the learner know how effectively he/she has learned here is a test. Remember, the learner is not on "trial", the learning system is being tested just as much as the student.

A TEST ON PROGRAMMED INSTRUCTION

Direction: Write the letter of the item which best completes the meaning of the statement.

1. The basic idea of programmed instruction is:

   a. Breaking information into large units of items.

   b. Reinforcement of learning from satisfaction of getting the correct answer

   c. Following instructions with accuracy

   d. Substituting the teacher with a program

2. To benefit most from a programmed material, the student:

   a. Reads the material just like a textbook

   b. Recalls the answers to questions mentally

   c. Copies the material

   d. Writes the answers to questions

3. The most important value of a programmed material is:

   a. The teacher may have a holiday while the students work on the material

   b. A programmed material can be used for several years without need of revision

   c. An infinite number of students can benefit from the expertise of several specialists.

   d. Programmed material are not expensive

4. Which of these is not found in a good objective?

a. The objective stated in behavioral terms

b. The conditions under which a student performs

c. The list of resources needed

d. The quality of performance expected

5. Which of these is a properly stated objective?

a. Knows the value of family planning

b. Understands the evils of abortion

c. Appreciates the advantages of a small family

d. Enumerates three effects of contraceptives

6. A type of programmed material in which the path of the learner is determined by the answers he makes is called:

a. linear

b. branching

c. chaining

d. Ruled

7. Giving cues to the learner as to the answers to question observes the principle of:

a. prompting

b. fading

c. reinforcement

d. shaping

8. The first step in programming is:

a. Writing the frames

b. Trying out the frames

c. Writing the objectives

d. Evaluating the frames

9. Who of these is not urgently needed in programming?

a. A guidance counselor

b. the subject specialist

c. language expert

d. programming expert

10. A programmed material is considered good if:

a. Half of the students obtain 50% of the items

b. 60% of the students score 70 in a 100-item test

c. 75% of the students get 75% of the test items

d. 90% of the students get 90% of the test items

In the process of developing a programmed material, the best way to try it out is on the basis of:

a. one-to-one

b. one-to-ten

c. one-to-one hundred

The Skinner program has the advantage of:

a. presenting one idea at a time

b. presenting several ideas in a panel

c. Asking the student to choose an answer

d. Asking the student to make several answers

What do you expect to gain from this workshop? In your opinion, how best can this be achieved?

It is imperative that the learner be able to see the results of this test - that is why we provide the answers on the next page.

ANSWER TO THE EXAMINATION FOR LEARNER FEEDBACK

1. b.

2. b.

3. c.

4. d.

5. c.

6. a.

7. a.

8. c.

9. a.

10. d.

11. a.

12. a

13. ?

EVALUATION

Feedback from the learner is an essential component of instructional design. Data collected from learners will determine the effectiveness of the next edition (revision) of your module. This feedback will assist in the formulation of an efficient learning system _____ if the data are collected, tabulated, analyzed, summarized and shared with instructional designers revising the material.

It will also greatly assist decision makers guiding the training system.

COURSE CRITIQUE FOR LEARNER FEEDBACK TO PROGRAMMER

I. For each statement circle the one response that is the closest to your opinion.

1. The course objectives were:
   a. clearly stated or written
   b. stated or written; but not all of them were clear to me
   c. stated or written; but most of them were not clear to me
   d. neither stated or written

2. The course content was geared to a level that was generally:
   a. appropriate for my background
   b. too elementary
   c. too difficult
   d. inappropriate for my background

3. I think the organization of the course material was:
   a. completely clear and useful; excellent
   b. for the most part, clear and useful; good
   c. some topics were organized in a clear and useful manner, while others were not; fair
   d. there was little apparent organization in this course; poor

4. After reading the course manual, I think it is:
   a. both a well written and useful document
   b. a fairly well written document, but nevertheless useful
   c. a poorly written document that is of limited utility
   d. neither a well written nor useful document
   *e. there is no course manual

5. The time required to complete the homework assignments was:
   a. reasonable
   b. unreasonable
   c. wasted; these assignments were "busy work"
   *d. there were no homework assignments in this course

6. The amount of time allotted for this course was:
   a. sufficient
   b. too long
   c. too short
   d. this course should last _____ number of days

7. Overall, I think this course was:
   a. excellent
   b. good
   c. fair
   d. a waste of time and money

8. Given the objectives of the course and the skills required for a meaningful understanding of the materi
   would:
   a. recommend this course to a friend without reservation
   b. recommend this course with some possible changes
   c. not recommend this course unless there were definite improvements
   d. not recommend this course under any circumstances

9. For future courses, there should be:
   a. no substantive changes
   b. more practical application of the course material
   c. more theory presented as a basis for the material taught
   d. more of a "balance" provided between theory and practical application

10. How did you hear about this course?
    a. employer
    b. friend
    c. schedule
    d. conference
    e. other _____

UNIT: _____

NAME _____ COURSE _____ DATE _____

Note: In order for instruction to be learner centered, this form must be

Please circle the one number that represents the extent of your agreement with each of the following statements. READ EACH ITEM CAREFULLY.	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO OPINION
1. The course content was useful for my professional growth.	5.	4.	3.	2.	1.
2. The course content was what I had expected.	5.	4.	3.	2.	1.
3. The course content was too complex.	5.	4.	3.	2.	1.
4. The course content was too simple.	5.	4.	3.	2.	1.
5. The course content was up to date.	5.	4.	3.	2.	1.
6. During the course I felt challenged to learn.	5.	4.	3.	2.	1.
7. Generally, the course materials were presented in an interesting manner.	5.	4.	3.	2.	1.
8. The course content was well coordinated among the instructors.	5.	4.	3.	2.	1.
9. The instructors were well prepared for most class sessions.	5.	4.	3.	2.	1.
10. The instructors were quite knowledgeable about their subject area.	5.	4.	3.	2.	1.
11. Generally, I understood what I was expected to learn in this course.	5.	4.	3.	2.	1.
12. Throughout the course I received sufficient information on anything I did not understand.	5.	4.	3.	2.	1.
13. The questions raised during the lectures were usually answered to my satisfaction.	5.	4.	3.	2.	1.
14. My background was adequate for success in this course.	5.	4.	3.	2.	1.
15. The teaching methods used in this course were effective for my learning.	5.	4.	3.	2.	1.
16. This course contained a sufficient amount of practice exercises.	5.	4.	3.	2.	1.
17. The course assignments were useful for my learning.	5.	4.	3.	2.	1.
18. The production quality of the audio-visual materials was technically adequate.	5.	4.	3.	2.	1.
19. The audio-visual materials aided my understanding of the topics presented.	5.	4.	3.	2.	1.
20. The final exam accurately represented the material covered in this course.	5.	4.	3.	2.	1.
21. Overall, I was pleased with this course.	5.	4.	3.	2.	1.
22. I think my technical skills and/or knowledge have been strengthened as a result of this course.	5.	4.	3.	2.	1.
23. I think I will be able to use what I have learned from this course in my current position.	5.	4.	3.	2.	1.

24. I consider the most needed improvement in this course to be: _____

25. The "best" part of this course was: _____

II. Please circle the one number that represents the extent of your agreement with each of the following statements. READ EACH ITEM CAREFULLY.

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO OPINION
1. The course content was useful for my professional growth.	5.	4.	3.	2.	1.
2. The course content was what I had expected.	5.	4.	3.	2.	1.
3. The course content was too complex.	5.	4.	3.	2.	1.
4. The course content was too simple.	5.	4.	3.	2.	1.
5. The course content was up to date.	5.	4.	3.	2.	1.
6. During the course I felt challenged to learn.	5.	4.	3.	2.	1.
7. Generally, the course materials were presented in an interesting manner.	5.	4.	3.	2.	1.
8. The course content was well coordinated among the instructors.	5.	4.	3.	2.	1.
9. The instructors were well prepared for most class sessions.	5.	4.	3.	2.	1.
10. The instructors were quite knowledgeable about their subject area.	5.	4.	3.	2.	1.
11. Generally, I understood what I was expected to learn in this course.	5.	4.	3.	2.	1.
12. Throughout the course I received sufficient information on anything I did not understand.	5.	4.	3.	2.	1.
13. The questions raised during the lectures were usually answered to my satisfaction.	5.	4.	3.	2.	1.
14. My background was adequate for success in this course.	5.	4.	3.	2.	1.
15. The teaching methods used in this course were effective for my learning.	5.	4.	3.	2.	1.
16. This course contained a sufficient amount of practice exercises.	5.	4.	3.	2.	1.
17. The course assignments were useful for my learning.	5.	4.	3.	2.	1.
18. The production quality of the audio-visual materials was technically adequate.	5.	4.	3.	2.	1.
19. The audio-visual materials aided my understanding of the topics presented.	5.	4.	3.	2.	1.
20. The final exam accurately represented the material covered in this course.	5.	4.	3.	2.	1.
21. Overall, I was pleased with this course.	5.	4.	3.	2.	1.
22. I think my technical skills and/or knowledge have been strengthened as a result of this course.	5.	4.	3.	2.	1.
23. I think I will be able to use what I have learned from this course in my current position.	5.	4.	3.	2.	1.

24. I consider the most needed improvement in this course to be: _____

25. The "best" part of this course was: _____

EVALUATION (ALTERNATE FORM)

I. Title _____

Author _____

Target Audience _____

Estimated Working Time _____

Materials in Package (worksheets, slides, charts, etc.)

_____

_____

_____

II. Are there any relevant portions of the learning module which are not mentioned in the objectives or sub-objectives?

YES ☐ NO ☐

If YES, please specify the portion.

III. Is the learning module:

	YES	NO
a. Suitable for intended audience?	___	___
b. Clear, precise, to the point?	___	___
c. Make appropriate use of figures, diagrams, slides, etc.?	___	___
d. Accurate and authentic?	___	___
e. Organized?	___	___
f. Interesting?	___	___
g. Comprehensive presentation of material to meet objective?	___	___
h. Contain the information necessary to answer <u>all</u> the post-test items?	___	___
i. Sequenced from simple to complex?	___	___

If you checked <u>NO</u> to any of the above items, please specify <u>why</u>.

IV. Are there clear statements of what the learner can do after successfully completing the package?

YES ☐ NO ☐

V. Is frequent practice given?

YES ☐ NO ☐

VI. Is there an overall review frame?

YES ☐ NO ☐

VII. Please comment on any other aspects of the learning module, objectives or post-test items, that you feel might be relevant for adequate revision, e.g.,

Is the mode of presentation the most appropriate?

THANK YOU.

EVALUATION FORM (Alternate Form)

PROGRAMMED INSTRUCTION

Title: _____

1. Does the program confirm the learners' response?
2. Is the instruction sequenced from simple to complex?
3. Is the programming technique appropriate for the learning function being treated?
4. Is the "critical idea" principle applied to the structuring of program frames?
5. Is there evidence of over prompting? If your answere is Yes, briefly describe the nature of the over prompting.
6. Is the display format suitable from a perceptual point of view?
7. If panels are used, do they serve a prompting function?
8. Did the program hold your interest?

On the scale presented below, rate the program by placing a check mark at any point along the continuum.

Poor Good Excellent

Your comments:

EVALUATION SHEET

And here is a short form

It is hoped that you would be willing to evaluate the effectiveness of the instruction, concerning how you liked it, any criticisms you might have, and any suggestions for improvement that you may have.

Did you find the package boring_____, interesting _____

easy _____ hard _____

Comments:

Were there any parts or sections that you found irrelevant? Would you like to !

Did the illustrations help your understanding, or did you not pay much attentimportant for

Comments:

This package was designed as part of a larger package which is to be used both ? seas. Do you have any comments ancut the cross-cultural aspects of the lackage

Comments:

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Appendix E

FACTORS RELATED TO LEARNING IN PROGRAMMED INSTRUCTION FOR TRAINING HEALTH WORKERS FOR COMMUNITY-BASED HEALTH IN EGYPT

FACTORS RELATED TO LEARNING IN PROGRAMMED-INSTRUCTION

FOR

TRAINING HEALTH WORKERS FOR COMMUNITY-BASED HEALTH IN EGYPT

HEALTH TRAINING SYSTEM PROJECT

High Institute of Public Health, Department of Family Health
(HIPH/FH)

September 1980

TABLE OF CONTENTS

PURPOSE

The purpose of this protocol is to:

1. State the problem, objectives, procedure, design and evaluation analysis methods for developing a village-level Health Education Training System in Egypt.

2. Describe the process whereby pilot projects in programmed-learning already underway will activate broad scale programs for training community-based health workers in Egypt.

This project will utilize U.S. Agency for International Development, International Committee for Applied Research in Population, and Church World Service supported studies which prepared and tested pilot materials and identified factors affecting learning among community health workers using programmed-learning materials in six (6) Asian and two (2) African training programs. Through village level applications, and careful analyses of their effectiveness, these simplified indigenously-prepared materials will be continuously improved in contemplation of large-scale reproduction (hundreds of thousands) and utilization by professionals and para-professionals at the village level. The effectiveness criterion for this health education project is demonstrated know-how of trainees in their local environment.

INTRODUCTION

Continuing education in health programs requires the periodic upgrading of skills. The need is even more apparent among widely-dispersed health workers. This research seeks to determine the response of health workers in Egypt to the use of self-instructional materials among rural health workers in need of in-service training.

Particular emphasis will be given to those who for various reasons, such as expense and inconvenience of travel to training centers cannot return to formal classroom settings to receive additional educational training. It is suggested that this problem relates to a wide variety of related workers,

nation-wide, who seek to upgrade their skills as new knowledge in their respective field expands exponentially. A specific concern of this study is the relationship of learner attitudes on curriculum content and format to learning achievement.

RELATED RESEARCH

To meet in-service training needs, self-instructional approaches have been utilized in a wide variety of settings. It has been asserted that self-instruction is just as effective as traditional teaching. Self-instructional teaching in certain situations has been shown to be both effective and efficient by several users and researchers. Xerox Basic Systems, Inc. estimates that programmed instruction can reduce learning time by 30% to 50%. The University of Florida School of Medicine documents a 50% reduction in acquisition time and no reduction in relation using self-instruction. (Stevens, C.B.; Enzor, M.; Phillips, T.; and Small, P.A.: "An Evaluation of Self-Instructional Package on Amino Acid Chemistry", Journal of Medical Education, 38:276-279, 1973).

Some researchers have measured the effectiveness of initial uses of self-instruction in the population field. Mullins and Perkin found that among nurses in Thailand engaged in programmed-learning about contraceptive technology, scores for units on the Loop showed an average of 36% comprehension on the pre-test and 80% on the post-test while midwives scored 20% on the pre-test and 70% on the post-test. In a unit on oral pills, the nurses improved from 37% on the pre-test to 85% on the post-test and midwives from 17% on the pre-test to 81% on the post-test. (Mullins, C. and Perkin, G.W.: "The Use of Programmed Instruction in Family Planning Training Programs: A Preliminary Report", Studies in Family Planning, The Population Council, 1969)

Until recently programmed instruction in the Philippines has primarily been for remedial purposes and generally limited to undergraduate courses at the college level. There was skepticism among some educators concerning:

1. the adaptability of self-instructional materials to biomedical topics;

2. the acceptability of self-instructional materials to biomedical topics; and

3. the acceptability of self-instructional materials by professionals and para-professionals.

Some questioned the acceptability of self-instruction in a group-oriented culture. A nation-wide study on the use of programmed-learning in the health sciences conducted in the Philippines by the Population Center Foundation and the University of North Carolina revealed that programmed-learning can save up to 50% in learning time and costs with almost all subjects preferring to is method of training.

The purpose of this research is to test the relative effectiveness and efficiency of self-instruction in village and urban community level worker training programs in Egypt. Four problems have been identified as potential areas of study.

PROBLEM STATEMENTS

1. Do self-instructional materials enable novices in a particular content area to become masters of that specific content area?

2. Do self-instructional learners working in rural settings improve in learning perfomance as much as compared with those learners working in urban settings?

3. Does learning with a self-instructional learning module among rural health workers relate to their sttitudes concerning application of this new knowledge?

4. How does attitude of a learner toward a particular body of learning content relate to the total learning gain of the learner?

HYPOTHESES

1. Programmed-learning modules can increase the level of information among novices such that they can perform at a satisfactory level on a knowledge recall test in a given subject area.

2. There will be no significant difference in total achievement scores between learners from rural and urban areas.

3. There will be a significant difference between learners with positive and negative attitudes on learning content.

4. There will be no significant difference between learners with positive and negative attitudes on programmed-learning format.

5. There will be no significant difference in total achievement scores between groups.

RESEARCH DESIGN

There will be four groups, (physicians, nurses, midwives and social workers) who will receive 4 learning modules.

Specifically, the following will be researched:

a. The performance level of training groups at locations among subjects using instructional materials in a group in a planned training setting.

b. The level of knowledge of the training groups before subjects have used the self-instructional material and after the subject have used them will be compared.

c. Relationship of other learner characteristics to learning achievement outcomes and acceptances.

The basic question being asked is: Can self-instructional materials achieve satisfactory level results when used with rural health workers in a planned training program situation?

The logistics of training large numbers of persons through training sessions is a formidable problem anywhere, particularly for health worker trainees. Hence, knowing what can be expected for self-instructional materials is of crucial importance. It is necessary to consider as separate those personnel who could be relatively easily reached by training sessions and may perform differently than persons who would not be reached readily by training sessions (for reasons of selectivity, differential learning opportunities and other factors).

The study population will be provided by actual training programs from one or all of the following organizations: The High Institute of Public Health, Rural Health Delivery Project, A.R.E.; Ministry of Social Affairs, Integrated Social Services Project, University of North Carolina; The Strengthening of the Rural Health Services Project; The Supreme Council of Family Planning of Egypt and Population and Family Planning Association of Egypt. It is, of course, recognized that this training is likely to provide samples that are less than completely representative of all health workers working in Egypt. It could be argued though that the training could be inclusive of all rural health workers who could be reasonable reached by any form of training program. Such an assunption would, of course, have to be made with due caution. Subjects in each of the test groups will be assigned in a manner which assures for equality on such variables as education, geographic location of practice, prior training, and number od years of experience*. Thus, the possible effects of these variables will be controlled and verified through use of analysis of covariance procedures. The total sample size will be 200.

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*The selection criteria for those eligible for training is established by the High Institute of Public Health. Theoritically our sample will be representative of all health worker candidates for training in a typical training program.

The testing site for those groups receiving self-instruction in a training setting will be under the auspices of local or regional, organization involved with training of rural health workers.

It is to be noted that since some of these organizations may not have their own training facilities, the facilities which they normally use for training will be utilized in each setting. Only organizations which are approved as training sites by the Egyptian Government have been contacted and requested to participate in this study.

INSTRUMENT CONSTRUCTION

A needs assessment of the learners will be conducted and objectives for each self-instructional package will be drawn from the assessment. The research questionnaires for each package will be designed by professionals in collaboration with the researchers to test learning gains, attitudial change, and effectiveness of the materials in relationship to the objectives of each self-instructional module. The self-instructional packages and testing instruments will be pre-tested to check for validity. Necessary changes will be made prior to the research data collection. (Sample instruments and modules are available from the researchers).

Test instruments will be constructed with the assistance of faculty who are experienced trainers in the fields of sanitation, nutrition, communicable diseases, and minor medical care, and health education. Following a judgemental approach to content validity, the faculty and the investigator will measure specific outcomes of instruction as defined by instructional objectives. These objectives will be measured against criterion tasks performed by operational staff in community health programs. An Item analysis will be conducted. Test instruments will be tested for reliability in a field test. Pre-test and post-tests will be administered by designated staff trained for this project.

DATA ANALYSIS

The analysis can be more easily grasped with reference to Table (1) which summarizes in a schematic way the kinds of data collection envisioned. The methodology for analysis of data will be analysis of variance, correlation analysis, or where appropriate, non-parametric equivalents.

Essentially, the research design devolves itself into two main analyses: a test of effectiveness of the modules with health workers with secondary school education and of the modules with health workers with university education.

It will alse be possible to examine the effect of self-administered self-instruction among those for whom training sessions are feasible and discover the factors affecting learning.

METHOD

The subject to be used in this study will consist of approximately 200 trainees.

Evidence for testing and the major problems will be obtained by the training groups in each separate area. The simplest statistical form for this design is analysis of variance and correlation analysis.

PREMISES CONCERNING THIS STUDY

It is anticipated that this study find that:

1. Locale of practice makes no significant difference to knowledge acquisition.
2. Difference in attitudes will not be due to locale or educational level.
3. Scores will be related to interest, length, understanding, applicability (of content) and characteristics of programmed-learning.

Table (1)

		Rural	Urban
ESTIMATED DISTRIBUTION OF SUBJECTS (O_1 X O_2)	S.I. Secondary	50 Total	50 Total
	S.I. University	50 Total	50 Total

N= 100 (4 X 50 = 200) - Estimated distribution at test sites

Test Sites: Subjects = Alexandria 50
Abbis 50
Tanta 50
Cairo 50
Asiut (?)

Total N = 200

INSTRUCTIONS FOR TRAINERS

How to Administer the Modules

STEP 1. Before you distribute a module, read Card A.

STEP 2. Distribute the envelopes with the modules and tell them to bring the module out but not to open them until you give the signal.

STEP 3. When everybody has the module in front of them, say "O.K., you can begin. When you have finished reading the module, submit them to me".

STEP 4. Record starting time.

STEP 5. Recrod time upon submission.

Card A

Pre-Test

This is a programmed instruction module on _____(TITLE)_____ (Get one and show it to the trainees). This module is a self-instructional material. This material on (TITLE) has a review questionnaire. The purpose of this questionnaire is to assess your learning needs. We wish to know the level of your expertise. This will greatly help us in organizing a better training program to upgrade your skills.

Further, your responses will give us an idea on how we can enhance your learning.

When you are through answering the review questionnaire, go on to the next page and continue reading. You have to read every page of this material. Follow what it tells you to do. Happy learning!

Card B

Post-Test

CONGRATULATIONS!

You have just finished going through your modules.

Now we would like to evaluate the effectiveness of the modules. Again, you will receive the same set of review questionnaires. May I remind you that you are not the one being tested. The modules are the ones being tested and tried. We wish to know whether these programmed instruction materials enhanced your learning.

GENERAL INSTRUCTIONS FOR INTERVIEWING

Interviewing is the "pivotal point of the survey sequence". It is the phase when data for the study are gathered. The quality of data, validity and reliability that is monitored during the field work phase will determine the quality and validity of findings and the importance of the research undertaking. It is for this reason that general instructions for interviewing based on the three cardinal rules, i.e., asking questions exactly as they are worded, following the sequence of the questions, and asking every applicable question on the schedule should be followed.

1. Be sure to establish rapport as soon as possible. The success of the interview and the reliability of the data depend to a large extent on the quality of rapport escablished the moment you knock at the door of your prospective respondent. Always try to have a friendly face.

2. Be thoroughly familiar with the research instrument to avoid interviewing errors and on-the-spot embarrassment. Familiarity with how the questions are worded means ability to ask questions in a conversational manner.

3. Try ro preserve a balance between stiff, formal questioning and gabfest. The earlier entails reading off questions and methodologically checking answers, while the latter involves time waste due to long, irrelevant responses.

4. Ask stimulus questions exactly as they are worded. Be absolutely neutral in asking them. Do not elaborate, neither do you suggest an answer or give analogies or examples. It takes very little to encourage a respondent to answer you the way he thinks will please you.

5. Be on the look out for underscored words in the interview schedule. They need to be emphasized.

6. Do not leave an applicable question unanswered. Proceed to the next only when the respondent gives you an adequate answer.

7. Guard against respondent talkativeness. This is not a measure of a good interview.

8. Off-tangent responses may lengthen the time of interview. Wherever possible, keep R on the track without necessarily cutting him off abruptly.

9. Do not accept a DK or NA answer unless 100 percent certain. The DK answer stems from a number of things:

   a. The respondent may not understand the question asked of him.

   b. The respondent, while thinking over the question, says DK to fill in the silence.

   c. The respondent may be trying to evade the issue either because he feels it as too personal, he fears a wrong answer, or he feels he is uninformed.

   d. The respondent may not really know the subject asked. It is the interviewer's responsibility to make sure that such is the case.

   If the respondent does not want to commit himself, the interviewer should assure him that there are not right or wrong answers and that all answers are confidential.

10. Never give your opinion even when asked to.

11. Never interview in the presence of a garrulous audience. Be on the look out for even the least hassles. These could affect the privacy of the interview and lead to data contamination. Where these occur, it may be necessary to resort to techiques such as diverting and side-tracking the outsider, "freezinf" him, satisfying his currosity, or getting your respondent to dismiss him.

12. Never interview when you feel very tired. Resultant impatience might cause "leading temptations".

13. Go over the protocol at the end of each interview to ensure that all applicable questions had been asked.

FIELD EDITING

Pointers in Interviewer Editing:

1. All questions must be accounted for. Each item must be answered even if answers are of the NAP, NA, or DK sort.

   NAP-not applicable. The question need not be asked.
   NA-no answer. The question may have been asked but responses appear irrelevant.
   DK-- don't know.

2. Check skip questions. Follow instructions carefully. Skip particular questions when asked to do so.

3. For open-ended questions like questions on attitudes, opinions, judgement, and the like, probe for responses that fall under generalizations

4. As much as possible, take time to go over your interview schedule at the end of each interview session to check that all pertinent questions have been asked and answered. A return call may prove difficult if not impossible, not to mention the bias which may set in.

5. Edit each interview schedule immediately. In this way,recall will be easier.

6. Avoid erasures. If at all possible, just cross out faulty responses and enter responses on the margin or somewhere in the page.

7. Always aim for accurate, unbiased, valid responses. Avoid recalls especially on attitude questions.

Pointers in Team Leader Editing:

1. Check that all pertinent questions have answer, be they symbols or notes
2. Check skip questions. They should be marked NAP.
3. Watch out for irrelevant responses. Call-backs may be needed
4. Look out for open-ended questions. All such questions require probing.

5. If there occurs a pattern of same responses or more than the expected number of DKs and NAs, check on the interviewer's personality. Unless explained otherwise, the interviewer factor may prove harmful to the data. A persistent DK or NA response could mean no probing was exerted by the interviewer. The challenge is to get a reaction.

6. Make comments in pencil on questions that need to be done again due to incomplete answers, lack of sufficient probing, or inconsistency with related questions. Do not erase.

7. Write all numbers that need to be done again on top of the first page of the interview schedule so that the interviewer can locate them.

8. Re-edit and cross out numbers one by one after answers are corrected.

9. If answers are still unsatisfactory, repeat procedure without erasing.

10. Make sure identification codes are written legibly and correctly on the right hand corner of each page of the interview schedule.

11. Initial last page of the interview schedule only after all corrections have been made.

SPOTCHECKING

Pointers in Team Leader Sporchecking:

1. Randomly select a schedule accomplished by each interviewer.

2. Choose five objective questions for each schedule.
   (Keep them confidential)

3. Go back to the person interviewed and ask these five questions. Be sure to write down the answers so there will be basis for comparison.

4. Compare the answers you got with the responses in the completed interview schedule.

5. If these answers are not the same, find out why!

A Study of Programmed-Learning for Continuing Education

An Interview Guide

Background

The High Institute of Public Health, Department of Family Health is currently undertaking a pilot project on self-instruction. This project is testing the feasibility of using self-instruction for the training of rural level community development and health educators. As a means of upgrading knowledge, attitudes, and skills, providing for unformity of training and reducing training costs. It involves two phases, namely: the development and production of prototype self-instructional training units and the evaluation of self-instructional modules on such subjects as: family planning, communicable diseases, sanitation, nutrition, diarrhoea, antenatal care (fetal heart beat) and evaluation of family planning programs.

The Evaluation Study

The study of programmed-learning for continuing education in village health is the second phase of the pilot self-instructional project.

A. Objectives

1. To explore the effect of programmed-learning among groups in a formal learning situation and among groups in a non-formal learning situation.

2. To explore the influence of demographic and attitudinal variables on the learning effect of the programmed-learning modules.

B. Operational Definitions

1. Self-instructional/programmed-instructional/programmed-learning module. (These terms can be used inter-changeably). This is an instructional material that utilizes the techniques of programmed instruction.

2. Programmed-instruction. This is an instructional method which is learner-centered. This method programs the learning of the learner. It consists of a series of learning steps referred to as frames. A frame is a unit of a program that requires a response of the learner. The learner interacts with the programmed instructional material. The material, in turn, contains a built-in feedback of the learner's responses. This maximizes the probability of success in learning.

3. Formal learning situation. In this study, this refers to the in-service training program of the participating programs.

4. Non-formal learning situation. This refers to the area of work of the rural health workers trainees who are not in a training program.

5. Secondary school level trainees are those who have attended secondary school but have not graduated from university level.

6. University health workers are those trainees who have graduated from university level.

7. Trainors. These are training officers who are most actively involved in supervising the training of the trainees during the training course.

8. Trainees. Community health workers in this training program study.

9. Training program. This refers to the training courses offered by the participating programs.

Methodology

1. Sample size:

Total Number =	200
Rural	100
Urban	100

2. Procedure

Treatment

The High Institute of Public Health, Department of Family Health is presently conducting a study to investigate the effectiveness of self-instructional training materials in a variety of public health topics for health workers at the community level.

Modules produced for this study by the Egyptian health and medical educators will be administered by trainers according to specified guidelines which are found in this document. Interviews will be taken after the subjects complete the last post-test by trained personnel according to guidelines attached. The questionnaire includes demographic and attitudinal data.

Time-Table

The demographic and attitudinal data collection should be:

Inclusive dates	Site	No. of types of respondents
November 1980	Alexandria/Abbis	100
December 1980	Tanta/Cairo	100

The above schedule includes the training interviewers.

Interview Schedule

Language

The schedule for the trainees should be translated into Arabic.

A. The Trainee's Interview Schedule

Block One - Demographic Data

This block identifies the respondent in terms of age, civil status, religion, education, and similar other demographic characteristics.

Question 18: deals with R's propensity to attend religious services. Religious services here does not include attendance to baptism, confirmation, wedding, and other such religious rites.

Block Two - Training

This block looks into the background training of the respondents. The results can serve as a possible explanation for certain attitudes they have asied from being able to check on the adequacy of their training form implementing the program. Respondents' attitude for their training certainly affect their attitudes toward the methods used during the training, one of which is the use of self-instructional materials.

Block Three - Attitude Toward FP and Opinion on Other Health Problems

Block Four - Attitude Toward Subject

This block assesses the respondents' interest, motivation, and encouragement levels. From this, we will be able to find whether or not there is a significant difference between learners with positive and negarive attitudes on content and programmed-learning format.

Block Five - Attitude Toward Modules

This block asks a great deal about the modules used by the trainee respondents during their training. Their activities toward the modules affect their total achievement scores.

Block Six - Application of New Knowledge

INTERVIEW SCHEDULE FOR TRAINEE RESPONDENTS

1. Respondent type:
   1. Secondary School Graduate
   2. University graduate
   3. Other _____

2. Respondent's name: _____
   First Name Middle Name Family Name

3. R's address (residential):
   1. Town/City/Village _____
   2. Governorate _____
   3. Urban
   4. Semi-Urban
   5. Rural

4. Institutional affiliation:
   1. Government
   2. Private
   3. Government + Private
   4. Others

5. Working address:
   1. Town/City/Village
   2. Governorate
   3. Urban
   4. Semi-Urban
   5. Rural

6. R's position/designation: _____

7. Length of Professional service in present position: _____

8. Interviewer: _____

9. Date of interview: _____

10. Place of interview: _____

BLOCK ONE - DEMOGRAPHIC DATA

11. Date of birth: _____

When were you born? _____

DERIVE: Age in years _____

12. Place of birth:

Where were you born? FILL IN ALL THAT APPLY. CROSS OUT NAP CATEGORIES

1. Town/City/Village
2. Governorate
3. Urban
4. Semi-Urban
5. Rural

13. Civil status:

What is your civil status?

1. Single
2. Married
3. Widowed
4. Separated

14. Number of children:

a. (If single) when you have a family of your own, how many children would you want? _____

_____ Boy(s) _____ Girl(s) _____ Total

FOR MARRIED R's ONLY

b. When you married, how many children did you wish to have?

_____ Boy(s) _____ Girl(s) _____ Total

c. How many pregnacies did you/your wife have? _____

(PROVE FOR LIVE BIRTHS AND STILLBIRTHS) _____

d. How many living children do you have? _____

15. Age at marriage:

FOR MARRIED R's ONLY

a. How old were you when you got married? _____

FOR SINGLE R's ONLY

b. If you decide to get married, at what age would you like to get married? _____

16. Length of marriage: FOR MARRIED R's ONLY. IF R HAS HAD PREVIOUS MARRIAGE(S), ASK LENGTH OF EACH MARRIAGE

How long have you been married? _____

17. Religion:

What is your religious affiliation? DO NOT READ CATEGORIES

1. Muslem
2. Catholic)
3. Protestant) Christian
4. Coptic)
5. Others (specify) _____

18. Propensity to attend religious services:

How often do you attend religious services?

1. Never
2. Once a year
3. Once a month
4. Twice a month

5. Three times a month
6. Four times a month
7. Five or more times a month but less than daily
8. Daily
9. Other (specify) _____

19. Educational attainment:

a. Are you studying at present?

1. Yes 2. No

b. If Yes, Ask: What are you taking up now? _____

_____

c. If No, Ask: How long ago did you complete your last degree?

_____

Please enumerate basic and post graduate degree (chronologically)

Place/Institution	Dates Inclusive	Type of Training	Sponsoring Agency	Degree

BLOCK TWO - TRAINING

20. Training:

Where and when did you participate in a training course?

What type of training did you receive?

ENTER RESPONSES IN TABLE BELOW:

	Place/Institution	Dates Inclusive	Type of Training	Sponsoring Agency
a.				
b.				
c.				
d.				
e.				
f.				
g.				

21. Perceived training sufficiency:

EXPLAIN TO THE RESPONDENT THAT ALL RESPONSES WILL BE TREATED IN THE STRICTEST CONFIDENCE.

What do you think about the training methods or approaches used in this course and previous courses?

MENTION EACH TYPE OF TRAINING ENUMERATED IN Q.20, THEN ASK WHETHER EACH ITEM IS VERY INSUFFICIENT, INSUFFICIENT, SUFFICIENT, OR VERY SUFFICIENT AND WRITE CORRESPONDING CODE UNDER COLUMN TWO

Were they..... 1. Very insufficient
2. Insufficient
3. Sufficient
4. Very sufficient

If sufficient, ask:

Why? Write reasons under column three.

	Col. 1 Formal training (cf. Q.20)	Col. 2 Perceived sufficiency	Col. 3 Reason for insufficiency
a.			
b.			
c.			
d.			
e.			
f.			
g.			

22. Occupational satisfaction:

How satisfied are you with your job as a health worker?
Would you say you are not satisfied, satisfied, or very satisfied?

1. Not satisfied
2. Satisfied
3. Very satisfied

BLOCK THREE - ATTITUDE TOWARDS FP AND OPINION ON OTHER HEALTH PROBLEMS

23. Utilization of FP methods:

Are you/Is your spouse using any contraceptive method? What is it? PROBE FOR CONTRACEPTIVE METHOD(S) PRESENTLY USED.

1. Yes (mention methods)
2. No

24. Do you believe the public knows enough about prevention of diarrhoea?

1. Yes 2. No

25. Do you believe the public knows enough about provision of a well balanced diet at different age groups?

1. Yes 2. No

BLOCK FOUR - ATTITUDE TOWARD SUBJECT

26. Interst/motivation/enjoyment level:

ASK RESPONDENT TO ACCOMPLISH PAGE 25

Please indicate how you reacted to the module as a whole in terms of your general interest and agreement toward the content of the module by encircling the number that closely corresponds to your opinion.

What can you say about the content of the module?

a.	Not substantial	1	2	3	4	5	6	Substantial
b.	Agree with content	1	2	3	4	5	6	Do not agree w/content
c.	Not interesting	1	2	3	4	5	6	Interesting
d.	Not long	1	2	3	4	5	6	Long
e.	Easy to read	1	2	3	4	5	6	Hard to read
f.	Confusing	1	2	3	4	5	6	Not confusing

Module Number

I	II	III	IV	V	VI	VII	VIII
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐

27. Do you need to know more about:

		Yes	No
1.	Nutrition	---	---
2.	Contraception	---	---
3.	Diarrhoea	---	---
4.	Nutritional anaemia	---	---
5.	Detection of foetal heart sounds	---	---
6.	Evaluation of FP program	---	---
7.	Family planning methods	---	---

BLOCK FIVE - ATTITUDES TOWARDS MODULES

28. How willing were you when you took the module? (choose one

1. Not at all willing 2. Not willing 3. Willing 4. Ver

29. What impressed you most when you were reading a module?
(choose as many as you like)

1. Illustrations
2. Series of learning steps
3. Knowing how you fared immediately after answering the

30. Readability and clarity of modules

- How many times did you have to read the module before you understand it?

Module Number

	I	II	III	IV	V	VI	...	...
1. Once	☐	☐	☐	☐	☐	☐		
2. Twice	☐	☐	☐	☐	☐			
3. Three times	☐	☐	☐	☐	☐	☐		
4. More than three times	☐	☐	☐	☐	☐	☐	☐	

31. Do you want to keep the modules with you? Yes ____ No ____

32. Have you ever seen any other self-instructional module before?

Yes ____ No ____

If Yes, ask where? _____

33. Would you recommend the eight modules to your co-workers?

Yes ____ No ____

34. In a training program, what do you think would be best for you?

1. the lecture method alone
2. the lecture method followed by group discussions
3. the module alone
4. the module followed by group discussions
5. the module followed by a lecture followed by group discussions
5. others

35. Do you think that receiving self-instructional modules to learn new information is sufficient to upgrade your level expertise?

(encircle one)

1. strongly disagree
2. disagree
3. agree
4. strongly agree

36. If agree, then explain why? (can be more than one)

1. Self-instructional modules contain clear statement of objectives.
2. Provides information in sequential-logical small steps which is easier to assimilate.
3. Takes less time
4. Is individually paced
5. Gives frequent feedback-knowledge of results

6. Allows responses by students
7. Gives reinforcement to learners
8. No classroom necessary

- If disagree, please explain your answer _____

_____

_____

BLOCK SIX - APPLICATION OF NEW KNOWLEDGE

37. Field application:

Do you believe that what you have learned from your modules would be useful in your future performance as a health worker?

1. Not at all useful
2. Somewhat useful
3. Useful
4. Very useful

HIGH INSTITUTE OF PUBLIC HEALTH WORK PLAN FOR PROGRAMMED INSTRUCTION TRAINING AND HEALTH TRAINING SYSTEM PROJECT

		September	October	November	December	January	February	March	
1.	Revise Modules Revise Questionnaire	xxxx	xxxx xxxx						
2.	Site Selection	xxxx							
3.	Pre-test 8 Modules Questionnaires		xxxx xxxx						
4.	Revise Modules Questionnaire			xx					
5.	Duplicate Modules			x					
6.	Training Supervisor Selection	x							
7.	Recruit and Train Interviewers		xx	xx					
8.	Administration of the 8 Modules			xx	xxxx				
9.	Interviewing and Data Gathering			xx	xx xx				
10.	Data Processing					xxxx	xxxx	xxxx	
11.	Data Analysis coding:					xxxx	xxxx xxxx	xxxx xxxx	
12.	Preparation of Final Report							xxxx	
13.	Planning for a Possible 2-3 years Larger Project							xx	x
14.	One-Day Conference to Disseminate Results of Study								x

SUGGESTED LIST OF TABLES

Table

Table

Appendix F-1

QUESTIONNAIRE RESULTS: EGYPT

QUESTIONNAIRE RESULTS -- EGYPT

I. 1. The course objectives were:
   a. clearly written (7)
   b. stated or written; but not all of them were clear to me (4)
   c. stated or written; but most of them were not clear to me (0)
   d. neither stated nor written (0)

2. The course content was geared to a level that was generally:
   a. appropriate for my background (10)
   b. too elementary (0)
   c. too difficult (0)
   d. inappropriate for my background (1)

3. I think the organization of the course material was:
   a. completely clear and useful; excellent (0)
   b. for the most part, clear and useful; good (5)
   c. some topics were organized in a clear and useful manner, while others were not; fair (6)
   d. there was little apparent organization in this course; poor (0)

4. After reading the course manual, I think it is:
   a. both a well written and useful document (7)
   b. a fairly well written document, but nevertheless useful (4)
   c. a poorly written document that is of limited utility (0)
   d. neither a well written nor useful document (0)
   *e. there is no course manual (0)

5. The time required to complete the homework assignments was:
   a. reasonable (6)
   b. unreasonable (5)
   c. wasted; these assignments were "busy work" (0)
   *d. there were no homework assignments in this course (0)

6. The amount of time allotted for this course was
   a. sufficient (0)
   b. too long (0)
   c. too short (5)
   d. this course should last _____ number of days (6) (1: 14 days; 1: 10 days; 1: 7-10 days; 2: 7 days; 1: 5 days)

7. Overall, I think this course was:
   a. excellent (1)
   b. good (9)
   c. fair (1)
   d. a waste of time and money (0)

8. Given the objectives of the course and the skills required for a meaningful understanding of the material, I would:
   a. recommend this course to a friend without reservation (2)
   b. recommend this course with some possible changes (9)
   c. not recommend this course unless there were definite improvements (0)
   d. not recommend this course under any circumstances (0)

9. For future courses, there should be:
   a. no substantive changes (1)
   b. more practical application of the course material (7)
   c. more theory presented as a basis for the material taught (0)
   d. more of a "balance" provided between theory and practical application (3)

10. How did you hear about this course?
   a. employer (3)
   b. friend (3)
   c. schedule (4)
   d. conference (1)
   e. other _____ (0)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	No Answer
II. 1. The course content was useful for my professional growth.	4	6	0	1	0	0
2. The course content was what I had expected.	2	3	3	1	1	1
3. The course content was too complex.	1	2	4	3	1	0
4. The course content was too simple.	0	2	4	3	2	0
5. The course content was up to date.	4	4	1	0	2	0
6. During the course I felt challenged to learn.	8	2	0	0	1	0
7. Generally, the course materials were presented in an interesting manner.	4	7	0	0	0	0
8. The course content was well coordinated among the instructors.	1	7	3	0	0	0
9. The instructors were well prepared for most class sessions.	0	10	1	0	0	0
10. The instructors were quite knowledgeable about their subject area.	1	9	1	0	0	0
11. Generally, I understood what I was expected to learn in this course.	3	7	1	0	0	0
12. Throughout the course I received sufficient information on anything I did not understand.	3	5	3	0	0	0
13. The questions raised during the lectures were usually answered to my satisfaction.	1	6	4	0	0	0
14. My background was adequate for success in this course.	0	8	3	0	0	0
15. The teaching methods used in this course were effective for my learning.	4	6	1	0	0	0
16. This course contained a sufficient amount of practice exercises.	1	4	5	1	0	0
17. The course assignments were useful for my learning.	1	8	1	0	1	0

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	No Answer
18. The production quality of the audio-visual materials was technically adequate.	4	5	1	0	1	0
19. The audio-visual materials aided my understanding of the topics presented.	4	5	2	0	0	0
20. The final exam accurately represented the material covered in this course.	0	2	2	0	5	2
21. Overall, I was pleased with this course.	5	6	0	0	0	0
22. I think my technical skills and/or knowledge have been strengthened as a result of this course.	3	7	1	0	0	0
23. I think I will be able to use what I have learned from this course in my current position.	4	6	0	0	1	0

Appendix F-2

QUESTIONNAIRE RESULTS: ZAIRE

QUESTIONNAIRE RESULTS -- ZAIRE

I. 1. The course objectives were:
   a. clearly written (3)
   b. stated or written; but not all of them were clear to me (6)
   c. stated or written; but most of them were not clear to me (5)
   d. neither stated nor written (0)
   No Answer (1)

2. The course content was geared to a level that was generally:
   a. appropriate for my background (9)
   b. too elementary (5)
   c. too difficult (0)
   d. inappropriate for my background (1)

3. I think the organization of the course material was:
   a. completely clear and useful; excellent (1)
   b. for the most part, clear and useful; good (6)
   c. some topics were organized in a clear and useful manner; while others were not; fair (8)
   d. there was little apparent organization in this course; poor (0)

4. After reading the course manual, I think it is:
   a. both a well written and useful document (5)
   b. a fairly well written document, but nevertheless useful (4)
   c. a poorly written document that is of limited utility (6)
   d. neither a well written nor useful document (0)
   *e. there is no course manual (0)

5. The time required to complete the homework assignments was:
   a. reasonable (12)
   b. unreasonable (2)
   c. wasted; these assignments were "busy work" (0)
   *d. there were no homework assignments in this course (0)
   No Answer (1)

6. The amount of time allotted for this course was:
   a. sufficient (8)
   b. too long (0)
   c. too short (3)
   d. this course should last _____ number of days (4) (2: 10 days; 2: 8 days)

7. Overall, I think this course was:
   a. excellent (6)
   b. good (7)
   c. fair (1)
   d. a waste of time and money (1)

8. Given the objectives of the course and the skills required for a meaningful understanding of the material, I would:
   a. recommend this course to a friend without reservation (2)
   b. recommend this course with some possible changes (12)
   c. not recommend this course unless there were definite improvements (1)
   d. not recommend this course under any circumstances (0)

9. For future courses, there should be:
   a. no substantive changes (1)
   b. more practical application of the course material (10)
   c. more theory presented as a basis for the material taught (1)
   d. more of a "balance" provided between theory and practical application (2)
   No Answer (1)

10. How did you hear about this course?
   a. employer (13)
   b. friend (1)
   c. schedule (0)
   d conference (0)
   e. other _____ (1)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	No Answer
II. 1. The course content was useful for my professional growth.	11	4	0	0	0	0
2. The course content was what I had expected.	2	5	2	1	3	2
3. The course content was too complex.	0	1	9	3	0	2
4. The course content was too simple.	1	3	4	2	3	2
5. The course content was up to date.	5	4	2	0	2	2
6. During the course I felt challenged to learn.	5	3	1	5	0	1
7. Generally, the course materials were presented in an interesting manner.	3	9	2	0	0	1
8. The course content was well coordinated among the instructors.	2	4	6	1	0	2
9. The instructors were well prepared for most class sessions.	3	6	2	1	1	2
10. The instructors were quite knowledgeable about their subject area.	2	9	0	0	2	2
11. Generally, I understood what I was expected to learn in this course.	6	3	2	0	2	2
12. Throughout the course I received sufficient information on anything I did not understand.	5	3	4	0	1	2
13. The questions raised during the lectures were usually answered to my satisfaction.	1	8	3	1	0	2
14. My background was adequate for success in this course.	6	6	0	0	1	2
15. The teaching methods used in this course were effective for my learning.	6	7	1	1	0	0
16. This course contained a sufficient amount of practice exercises.	2	4	6	1	0	2
17. The course assignments were useful for my learning.	4	8	0	1	2	0

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	No Answer
18. The production quality of the audio-visual materials was technically adequate.	3	4	2	0	3	3
19. The audio-visual materials aided my understanding of the topics presented.	3	4	3	1	0	4
20. The final exam accurately represented the material covered in this course.	4	3	2	0	4	2
21. Overall, I was pleased with this course.	7	5	1	0	0	2
22. I think my technical skills and/or knowledge have been strengthened as a result of this course.	9	6	0	0	0	0
23. I think I will be able to use what I have learned from this course in my current position.	8	5	0	0	0	2

Appendix F-3

QUESTIONNAIRE RESULTS: INDIA

QUESTIONNAIRE RESULTS -- INDIA

I. 1. The course objectives were:
   a. clearly written (13)
   b. stated or written; but not all of them were clear to me (0)
   c. stated or written; but most of them were not clear to me (0)
   d. neither stated nor written (0)

2. The course content was geared to a level that was generally:
   a. appropriate for my background (12)
   b. too elementary (1)
   c. too difficult (0)
   d. inappropriate for my background (0)

3. I think the organization of the course material was:
   a. completely clear and useful; excellent (3)
   b. for the most part, clear and useful; good (8)
   c. some topics were organized in a clear and useful manner, while others were not; fair (2)
   d. there was little apparent organization in this course; poor (0)

4. After reading the course manual, I think it is:
   a. both a well written and useful document (5)
   b. a fairly well written document, but nevertheless useful (3)
   c. a poorly written document that is of limited utility (0)
   d. neither a well written nor useful document (1)
   *e. there is no course manual (5)

5. The time required to complete the homework assignments was:
   a. reasonable (5)
   b. unreasonable (0)
   c. wasted; these assignments were "busy work" (0)
   *d. there were no homework assignments in this course (7)
   No Answer (1)

6. The amount of time allotted for this course was:
   a. sufficient (4)
   b. too long (0)
   c. too short (5)
   d. this course should last _____ number of days (4) (1: 7 days; 3: 5 days)

7. Overall, I think this course was:
   a. excellent (4)
   b. good (9)
   c. fair (0)
   d. a waste of time and money (0)

8. Given the objectives of the course and the skills required for a meaningful understanding of the material, I would:
   a. recommend this course to a friend without reservation (8)
   b. recommend this course with some possible changes (5)
   c. not recommend this course unless there were definite improvements (0)
   d. not recommend this course under any circumstances (0)

9. For future courses, there should be:
   a. no substantive changes (4)
   b. more practical application of the course material (5)
   c. more theory presented as a basis for the material taught (1)
   d. more of a "balance" provided between theory and practical application (3)

10. How did you hear about this course?
   a. employer (4)
   b. friend (3)
   c. schedule (1)
   d. conference (1)
   e. other _____ (3)
   No Answer (1)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	No Answer
II. 1. The course content was useful for my professional growth.	6	6	0	0	1	0
2. The course content was what I had expected.	5	4	0	0	3	1
3. The course content was too complex.	1	0	5	4	3	0
4. The course content was too simple.	1	4	4	1	3	0
5. The course content was up to date.	2	8	2	0	1	0
6. During the course I felt challenged to learn.	2	9	1	0	1	0
7. Generally, the course materials were presented in an interesting manner.	3	9	1	0	0	0
8. The course content was well coordinated among the instructors.	3	9	0	0	1	0
9. The instructors were well prepared for most class sessions.	5	6	2	0	0	0
10. The instructors were quite knowledgeable about their subject area.	8	3	2	0	0	0
11. Generally, I understood what I was expected to learn in this course.	7	5	0	0	1	0
12. Throughout the course I received sufficient information on anything I did not understand.	5	6	1	0	1	0
13. The questions raised during the lectures were usually answered to my satisfaction.	3	9	1	0	0	0
14. My background was adequate for success in this course.	6	5	1	0	1	0
15. The teaching methods used in this course were effective for my learning.	6	6	1	0	0	0
16. This course contained a sufficient amount of practice exercises.	5	5	3	0	0	0
17. The course assignments were useful for my learning.	5	7	0	0	1	0

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	No Answer
18. The production quality of the audio-visual materials was technically adequate.	3	9	1	0	0	0
19. The audio-visual materials aided my understanding of the topics presented.	3	10	0	0	0	0
20. The final exam accurately represented the material covered in this course.	1	6	1	0	5	0
21. Overall, I was pleased with this course.	6	7	0	0	0	0
22. I think my technical skills and/or knowledge have been strengthened as a result of this course.	6	6	0	0	1	0
23. I think I will be able to use what I have learned from this course in my current position.	6	6	0	0	1	0

Appendix G

LIST OF MODULES FOR P1 STUDY

Appendix G

LIST OF MODULES PRODUCED BY HIPH FOR PI STUDY

Registration

Name	Title	Module Subject Area	Address
Dr. Emad Eid MB, BCH, DPH	Assistant Professor, Department of Family Health	Oral Rehydration (for Health Workers)	HIPH
Dr. Soheir M. Mekhemar Dr. PH, Dip. Hosp. Adm.	Lecturer, Family Health	IUDs and Oral Contraceptives (for Health Workers)	HIPH
Dr. Soheir M. Mekhemar	Lecturer, Family Health	Foetal H. Sound for Health Workers	HIPH
Dr. Ahmed S. Wasfy MD., DCH, Dr. PH	Lecturer, Maternal Health	Malnutrition Among School Children for Health Workers	HIPH
Dr. Ibrahim El-Kerdany MD, MPH, Dr. PH	Lecturer, Maternal Health	Other Contraceptives for the Health Worker	HIPH
Dr. Naila Amer MD, MPH, Dr. PH	Lecturer, Public Health Administrator	Evaluation of the Family Planning Services for the director of Family Planning's centers	HIPH
Dr. Hanna Ismail, Ph.D. Pravour, Food Chemistry, Bristol University, UK	Lecturer	Breastfeeding for Health Workers	HIPH
Dr. Kamilia Moustafha MPH, Dr. PH	Lecturer, Family Health	Malnutrition Anemia (for Health Workers)	HIPH
Dr. Abla Ibrahim, MB, CH, B	Instructor, Department of Family Health	Care of the Elderly (for Health Workers)	HIPH

Appendix H

LIST OF MODULES PRODUCED AT HIPH PI WORKSHOP

Appendix H

LIST OF MODULES PRODUCED AT HIPH PI WORKSHOP

Name	Title	Module Subject Area	Address
Dr. Sawsan Fahmy MB,CHB, MPH, Dr. PH	Professor of Family Health, Department of Family Health	School Health	HIPH
Dr. Emad Eid MB, BCH, DPH, DCH, Dr. PH	Assistant Professor, Department of Family Health	Maternal and Child Health	HIPH
Dr. Soheir Mekhemar Dr. PH, Dip. HED, Dip. Hosp. Adm.	Lecturer in Family Health, Department of Family Health	Community Health Nursing, Delivery System and Education	HIPH
Dr. Ahmed S. Wasfy MD, DCH, DPH	Senior Lecturer in Family Health, Department of Family Health	School Health Problems: Prevention and Management	HIPH
Dr. Soheir Bayoumi Dr. PH (PHN)	Lecturer, Public Health Nursing, Department of Family Health	Personal Hygiene	HIPH
Dr. Mona Mohamed M., MPH	Assistant Lecturer, Department of Family Health	Maternity Care	HIPH
Dr. Kamilia Moustafha, MPH	Assistant Lecturer, Department of Family Health	School Health	HIPH
Dr. Enaya Abel Kader, Dr. PH (School Health)	Lecturer in Family Health, Department of Family Health	School Health	HIPH
Dr. Ibrahim El-Kerdany, Dr. PH (MH)	Lecturer in Maternal Health, HIPH	Mental Health Problems	HIPH
Dr. Abla Ibrahim MB, CH, B	Instructor, Department of Family Health	Care of Old People*	HIPH

*For Public Health Physicians

Appendix H (cont.)

Name	Title	Module Subject Area	Address
Dr. Nihad Dabous MB, CH, B	Instructor, Department of Family Department of Family Health	The Natal Counseling	HIPH
Dr. Mofida Kamal			HIPH
Dr. Samia Nosseir, BS	Preschool Child	Maternal and Child Health, Preschool Child Care*	HIPH
Dr. Olfat Daruish MD, MPH (HE), Msc. and Ph.D. Nutrition	Associate Professor, Department of Family Health	Nutrition	HIPH
Dr. Samia Galal Ph.D., "C.E.", SE	Associate Professor, S.E., Department of Family Health	Industrial Waste Control, Environmental Pollution Abatement	HIPH
Dr. Amal Khairy F. MD of PH (HIPH)	Associate Professor, Department of Family Health	Rural Epidemiology Topic, Epidemiology of Helminth Diseases	HIPH
Dr. Naila Amer MD, MPH, Dr. PH	Senior Lecturer, Department of	Public Health Administration	HIPH
Dr. Hansa Ismail Ph.D., Pravour and Food Chemistry, Bristol University, UK	Assistant Lecturer, Department of Family Health	Analysis of Natural and Artificial Food Designs for Six-month-old Babies**	HIPH

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* For MCH Physicians
** For PH Chemists
HIPH = High Institute of Public Health
165 Horria Avenue
El Hadra, Alexandria
EGYPT

Appendix I

MEMORANDA

MEMORANDUM

From Dr. C. Ausherman

Date September 4,1980 Tel.

To Dr. A.F. El Sherbini

Subject WORKSHOPS

You will be interested to compare the tabulated results of three Workshops held in a Twelve-month Period in Egypt, Zaire and India.

This was made possible because of the data you kindly sent to me to Chapel Hill.

MEMORANDUM

From C. Ausherman

Date Sept. 8, t980 Tel.

To Dr. Serbini

Subject

Attached Please find the Preliminary work order for the Ministry of Social Affairs Project. An important point in this coincidance is that U.N.C. is willing to cover the travel expenses for my return next year when we will be ready for the HIPH Dept. of Family Health Evaluation of the training modules.

THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

School of Social Work
Egyptian Project
Tel. (919) 933-8323
Cable Code: PROJECT

NCNB Plaza
The University of North Carolina at Chapel Hil
136 E. Rosemary St. 322A
Chapel Hill, N.C. 27514

MEMORANDUM

TO: John B. Turner

FROM: George R. Gamble GRG

DATE: August 1, 1980

RE: Proposal for an audio-visual/curriculum materials consultant

To pursue earlier conversations with you and with Roger regarding the Project's need for a consultant in the area of audio-visual/curriculum material development, I would like to present the following proposal for your consideration.

1) Consultant:

I recommend that the Project contract Dr. Charles Ausherman (see attached resume) to provide professional services to us in this field.

Dr. Ausherman is a well-qualified specialist in audio-visual and curriculum material development, especially as applied to social change programs in Third World countries. He has broad overseas experience - including a current contract with the American Public Health Association in Alexandria, Egypt - and has developed a special interest and expertise in training indigenous peoples to produce their own audio-visual and other curriculum/social change materials.

Dr. Ausherman was highly recommended to me by several faculty members involved in adult education/social change programs as a competent and effective professional. On the basis of my conversations with Dr. Ausherman, I would concur with the judgement of these faculty members. I believe Dr. Ausherman would serve our project needs well.

2) Scope of Work:

It is recommended that the work for this consultation be defined as providing technical and professional services to the ISSP Project to

1) assess and define the need for audio-visual and other learner-centered materials which might be used in

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a) the in-service training program
b) social unit efforts to educate and involve local communities in various social change activities
c) educational efforts in various specialized community programs (e.g., sewing, nutrition, health, day care)

2) assess and define the human and hardware resources necessary to develop indigenous capacity to produce audio-visual and other learner-centered curriculum materials.

3) explore the feasibility and value of including ISSP personnel in one of the audio-visual curriculum development workshops being planned at the Higher Institute of Public Health in Alexandria in September, 1980.

4) explore the feasibility and value of planning a special audio-visual curriculum development workshop for ISSP personnel.

5) Prepare a written report on the above items with a recommended plan of action to achieve indigenous capability to produce appropriate audio-visual and other learner-centered curriculum materials for the ISSP Project needs.

3) Work Schedule and Duration:

It is recommended that Dr. Ausherman be contracted initially to provide from five to ten days of consultation to the Project in September, 1980. Dr. Ausherman will be in Egypt in September working on a contract with the American Public Health Association at the Higher Institute of Public Health in Alexandria and has said that he would have about seven days available for consultation with us. Dates for Dr. Ausherman's consultation with us cannot be set more exactly at this time because his schedule in Alexandria is not yet established.

The number of consultation days has purposely been stated as a range rather than a set number to allow for some degree of flexibility which is judged to be essential in this type of initial, exploratory consultation.

Dr. Ausherman's consultation and report will be evaluated by the ISSP staff and a determination will be made regarding a plan of action and Dr. Ausherman's future work with the Project.

GRG/nap

August 13, 1980

Memorandum

T. Reese, MI

Preliminary Findings from 1980 Egyptian Family Planning Communications Baseline Survey*.

See Distribution

The Survey

The CCE State Information Service (SIS), with the assistance of the University of Chicago's Social Development Center (SDC), conducted a family planning communications survey from February to July 1980. The sample size was 2,000 households with one male or one female respondent from each household. The sample is representative of Egypt, the governorates and urban-rural areas.

Dr. Donald Bogue, President SDC, has prepared a preliminary report based on the first 870 cases from the governorates of Cairo, Sharkia, Qualubia, Gharbia, Menoufia and Giza. Of the 870 cases, 56% are from urban areas, 44% from rural.

Egypt's Population Problem

Those surveyed to date overwhelmingly responded that Egypt has a population problem. A large majority (92%) believe Egypt has too many people; 88% believe the country is growing too fast. A majority believe something should be done about the population problem, and 83% see family planning as the major solution. Follow-on questions revealed that most people understand that family planning is for limiting births, as well as spacing births; 96.2% indicated they thought family planning is "good".

The Small Family

Conventional wisdom in Egypt presupposes that married couples want large families. Reasons cited are that children are an economic asset, plus a form of social security. The interviews to date show just the opposite. Of those interviewed, 84% indicated a small family (2 children) is better than a large family (4 or more children). An addition question probed the advantages of a large family and 82% said there were none. A majority (91%) saw advantages to a small family.

* "Findings Relevant for the Egyptian National Family Planning Communications Campaign of the State Information Service." Donald Bogue, Social Development Center, Chicago, Illinois, August, 1980.

The survey probed the economic argument for a large family and found that 91% of the respondents felt that increasing family size makes the family poorer. When asked whether a son or a daughter can earn as much as it costs the family to rear him or her, 91% said a son earns less, 95% said a daughter earns less.

In probing the social security argument for many children, the survey did confirm that many respondents expect to be somewhat dependent on their children in old age. On the other hand, 62% felt it was better to assure their own security in old age with a small family (2-3 children) than with a large family (4-5 children).

This somewhat puzzling contradiction of the conventional wisdom may be in part explained by the fact that Egyptians have high aspirations for their children. In terms of a desire for higher education, 78% want their son to complete college, 66% their daughter.

Family Planning and Contraceptives

Although the respondents approve of family planning and believe their friends and relatives approve of family planning, modern contraceptives are not well known. Ninety-five percent were able to list the pill as a contraceptive method, but some of the more promising contraceptives (for Egyptian society) are hardly known at all: 17% knew the condom, 5% the diaphragm and 4% the vaginal foam tablet. Even if a respondent knew a method, he or she had probably not tried it. Of the women who knew the pill, 55% said they had tried it. Of the men who knew condoms, 22% had used them.

The survey revealed that there is a mixed view of how effective modern contraceptives are. There is also a cloud over contraceptives. Fully 78% said the pill was not safe; 14% said the condom was not safe.

Family Planning and Religion

The survey did reveal continuing ambivalence with regard to the religious factor and family planning. When asked if family planning was against the beliefs of religion, 71% answered no. Seventy-four percent responded that the Koran (or Bible) was not against family planning. In another approach, 65% of the respondents said they believed their local religious leader would approve of family planning. On the other hand, there were 15-30% (in some rural areas as high as 40%) of the respondents who indicated conflict between family planning and religion.

Survey Implications

If the rest of the data confirm these findings, then the SIS fall campaign focusing on "family planning methods" is well positioned. According to the survey tabulations, there is a clear need to increase knowledge and understanding of a full spectrum of modern contraceptives: pills, IUD's, injections, foam tablets, creams and jellies, diaphragms, and condoms.

The survey also points to the need for the GOE to implement a "client-centered" family planning program as compared to a "method-centered" one. The former focuses on the needs of the client; the latter attempts to greatly increase family planning usage through wide distribution of one or two methods with little regard to individual need.

Fortunately, the GOE appears to be moving along a promising track to take advantage of the survey data with an expanding client-centered program. In the urban areas, the commercial retail sales program will make a variety of contraceptives available through pharmacies and other outlets. Pharmacists and private physicians will be trained to consider the client's contraceptive needs. Promotion and distribution will make condoms and foam tablets widely known and available. The rural program with its clinic base and village council support (which includes the local religious leader) hopefully will neutralize religious opposition to the program. An improved rural health clinic system will support village family planning activities and household contraceptive distribution through supervision and treatment of client referrals.

Distribution

Embassy: Ambassador
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POL:Lorenz
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Appendix J

TASK ASSIGNMENT
AND
RELATED CORRESPONDENCE

TASK ASSIGNMENT

TECHNICAL ADVISORS THROUGH APHA CONTRACT
AID/DSPE-C-0053

Date: 7/25/80

TO : APHA, Chief for Technical Assistance Services
THRU: DS/POP/FPSD, Technical Assistance Project Officer ~~RWH~~
FROM: AID Technical Officer L. Dunstan
(Name and Office)

Consultation and/or technical assistance is requested to fulfill the following:

1. Purpose and Scope of Work:* NE Bureau + USAID/Cairo requests for Dr. Charles Ansherman, attached.

2. Locations (city and country) in which services are to be performed:

3. Date on which services are expected to start:

4. Estimated duration of work schedule:

5. Type of personnel and special skills required:*

6. Special working conditions or justification for specific consultants:

7. Contact person for additional technical details: L. Dunstan

Telephone:

*Append additional information, cables, etc.

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UNITED STATES GOVERNMENT

memorandum

DATE: July 22, 1980

REPLY TO ATTN OF: NE/TECH/HPN, Lea Dunston

SUBJECT: AMIA Consultancy - Dr. Charles Ausherman - PIPH Project

TO: DS/POP/FPSD, Mr. Robert Haladay

The mission in Cairo has requested, and NE/TECH/HPN concurs, the assistance of Dr. Charles R. Ausherman, AMIA consultant, to return to Alexandria for about four weeks in early September to finalize work which began in February 1980).

The scope of work for Dr. Ausherman's services is contained in the final report -- "Egyptian HIPH - Department of Family Training System Design, Programmed Learning, and Staff Development Project," prepared by Dr. Ausherman during the period February 1 - March 7, 1980. Also, attached is the mission's request (Cairo 05420).

Attachment: a/s

of Health medical and health professionals from 26 governorates. The workshop was held February 16-28 at the Department of Family Health.

The Egyptian State Information Service Population and Family Planning Conference, held February 17-21, provided contact with several key leaders. The APHA consultant attended three sessions during a two-day visit to Cairo.) (See Appendix E.)

The consultant made two visits to the Abbis-II Village Health and Training Center and two visits each to the Institute of Training and Research in Family Planning, in Alexandria, and the Rural Health Project of the Ministry of Health, in Cairo.

During the assignment, a three-day workshop was held March 1-3 for 17 HIPH faculty.

The purpose of the workshop was to:

1. Develop a cost and time-effective training method for Egypt using self-learning techniques.

2. Create indigenous examples of self-learning modules.

3. Prepare a manual to guide trainers in the methods of Egyptian self-learning.

C. Recommendations

Following discussion with all parties concerned, APHA's consultant recommended that HIPH and USAID/Cairo conduct the following activities:

1. Continue pretesting, revising, and fieldtesting the first draft modules and the manual on health and family planning produced at the workshop.

2. Evaluate the results of the study detailed in the protocol developed during the assignment.

3. Apply the findings of the first two steps in developing cost and time-effective training methods at the HIPH, the Abbis-II Training Center, and in other health and family planning training programs.

4. Share the results of this project with other health agencies and family planning agencies as part of a cooperative effort to expand national health family planning manpower development training systems.

A detailed workplan to implement these recommendations was prepared during the assingment with the help of appropriate HIPH staff. A budget was projected and discussed with USAID/Cairo.

HIPH and USAID/Cairo staff could foresee no serious problems with the projected implementation or funding of this activity. (The APHA consultant has been requested to review the revised modules.)

The consultant will return to Alexandria--probably in September 1980--as soon as the HIPH and USAID/Cairo confirm that the second phase of this project should begin.

Summary

This assignment focused on training system design for staff development, in-service training, and health and family planning manpower development. To facilitate training system design, specific attainable goals were outlined and achieved.

The purpose of this project was to assist Egypt in its efforts to promote national health and family planning manpower development and to train system designers. The development and evaluation of locally produced programmed-learning modules can be useful in planning national and innovative training strategies.

COPY Department of State TELEGRAM

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ACTION AID-35

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E.O. 12065: N/A
SUBJECT: POPULATION: HIPH PROJECT; APHA CONSULTANT, DR. CHARLES AUSHERMAN

REF: CAIRO 26583

1. FOR NE/TECH, L. KANGAS.

2. USAID APPRECIATES ASSISTANCE OF DR. CHARLES AUSHERMAN IN FAMILIARIZING HIPH STAFF WITH TECHNIQUES OF PROGRAMMED LEARNING AND IN ASSISTING WITH DEVELOPMENT OF SELF-INSTRUCTIONAL TRAINING MODULES. DR. AUSHERMAN ALSO ASSISTED WITH MANAGEMENT FOR TRAINING WORKSHOP HELD AT THE HIPH FEB. 16-28.

3. THE TRAINING MANUAL, MODULES AND EVALUATION PROTOCOL ARE BEING REVISED BY HIPH STAFF. USAID REQUESTS DR. AUSHERMAN RETURN TO ALEXANDRIA FOR ABOUT FOUR WEEKS IN SEPTEMBER 1980 TO FINALIZE WORK NOW UNDERWAY.

4. REQUEST HIS TRAVEL BE FUNDED UNDER A CONTINUATION/EXTENSION OF HIS CONTRACT UNDER APHA AGREEMENT AID/DSPE-G-0053 AUTHORIZED FOR A SIX WEEK PERIOD. ATHERTON

MR - action to EPSD w/ DS/POP
tel Halaby we concur

UNCLASSIFIED 3/12/80

Appendix K

EVALUATION OF FAMILY PLANNING SERVICES FOR DIRECTORS OF FAMILY PLANNING CENTERS

Evaluation of Family Planning Services for Directors of Family Planning Centres

By

Dr. Naila Amer

Pretest:

1. The first step in the evaluation process includes selection and clarification of the evaluation	Topic
2. A clear definition of predetermined program ..... is essential to compare the degree of their conformity with actual implementation.	Objectives
3. Evaluation of program operation entails measuring the ..... and ..... of goods and services produced.	Quantity and quality
4. One way of measuring quality of service is by comparing actual..... of working personnel with predetermined standards.	Performance
5. One way of measuring quantity of service is through analysis of	Records
6. The degree to which a program reaches its objectives is termed the degree of ..... the program.	Effectiveness

7. The degree to which objectives have been reached relative to cost or available resources is referred to as the degree of ..... of the program. **Efficiency**

If you miss any of the pre-test questions, please continue through this unit.

Evaluation of Family Planning Services
For Directors of Family Planning Centres

By
Dr. Naila Amer

Introduction : This attempt at a programmed learning unit is intended for physician Directors of Family Planning Centres who attend the two week refresher training courses in Family Health in the High Institute of Public Health.

Estimated Working Time of Student : Unit : 1 hr.
Post-Test ¼ hr.

Over All Objective : As a result of this unit the learner will be able to correctly evaluate services provided by the Family Planning centre through evaluation of program operation during a one week visit to the center.
(* Expected level of performance is 90%).

Sub Objectives : The learner will be able to :

(1) Select and clarify evaluation topic (s) related to the Family Planning Center.

(2) Define in writing objectives of the Family Planning Center related to the evaluation topic (s).

(3) Measure the quantity of goods and services actually provided through analysis of clinic records.

---

* The 90% level is determined as a professional standard (i.e not arbitrary).

(4) Measure the quality of goods and services actually provided through personal observation and patient and personnel interviews.

(5) Judge the value of the services provided by determining the degree of effectiveness and efficiency of the program.

Practice Cycle :

Input I : The first step in any evaluation process is to select and clarify the evaluation topic. This entails determination of :

* The subject to be evaluated i.e contraceptive devices used and / or physician performance etc...

* The type of evaluation whether it is evaluation of the need for the service, the program operation, or the impact of the service on the community.

* The purpose of evaluation whether for research purpose (purely academic) or as a feed back for program planners and decision makers.

Please Look at Diagram I

Now see if you understand the above information by answering the following questions :

1. Evaluating the use of the contraceptive pill as a method of Family Planning is the subject of my evaluation
   (Yes / No) Yes

2. Using my evaluation data to improve provision of service is the type of my evaluation.
   (Yes / No) No

3. Evaluation by measuring program operation is the type of my evaluation .
   (Yes / No) Yes

Diagram I

Topic Selection Triangle

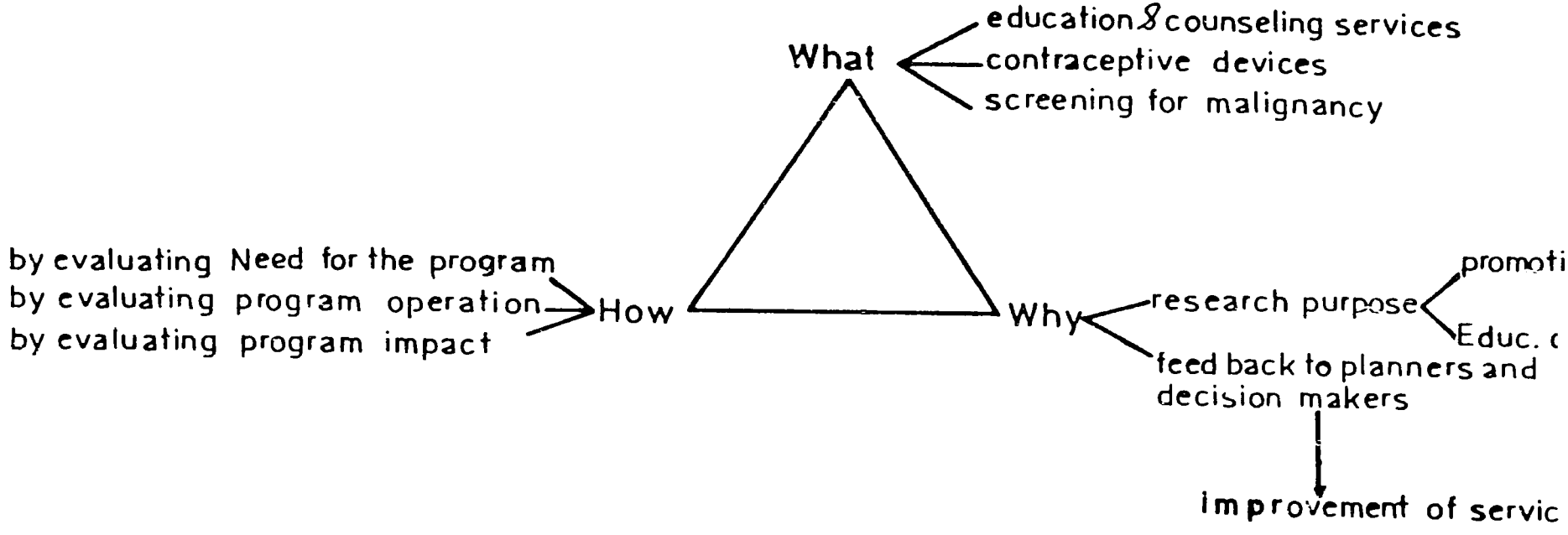
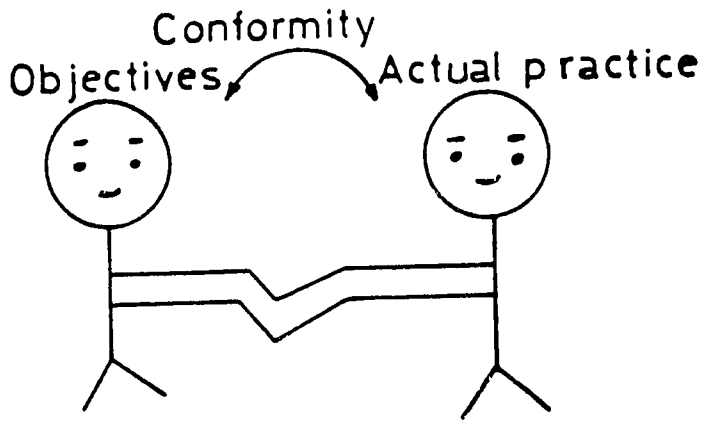
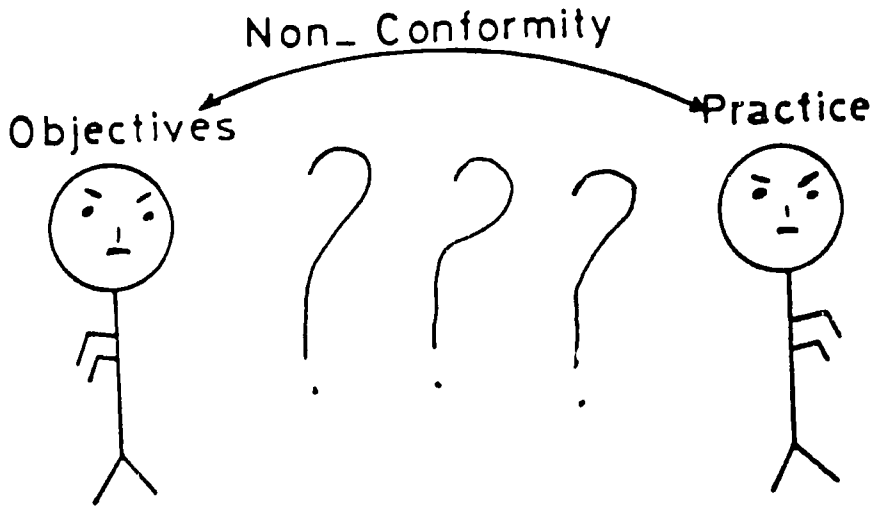


Diagram II


Conformity
Objectives
Actual practice


Non_ Conformity
Objectives
Practice

Input II :

Evaluation of program operation necessitates assessing the conformity of an implemented program to its predetermined objectives. Therefore it is essential to clearly define the program's predetermined objectives as one of the first steps of the evaluation process. Objectives should be clear- cut and measurable.

Diagram II

Now answer the following questions :

1. It is impossible to evaluate program operation without a clear knowledge of the programs ..... **Objectives**

2. To facilitate the evaluators's job, objectives should be stated very clear and in ..... terms. **Measurable**

Input III :

One aspect of evaluation of actual practice refers to measurement of the quantity of goods and services produced= output; Measurement is done by assigning a number to the output which may be expressed as a count, a rate, a ratio, a percentage or a proportion. In calculating utilization rates the volume of service provided must be related to the size of the population served.

Now answer these questions :

1. Measurement of the number of IUD's inserted by a doctor is a measure of the (quantity/ quality) of service provided. **Quantity**

2. Goods and products provided by the clinic are considered (Outputs / utilization rates) of service. **Outputs**

3. If the annual consumer visits to a Family Planning Center was 50,000 visits and the population served was 5000 the (output/ utilization rate) will be 10 visits/ person/ year. **Utilization rate**

Input IV :

Measurement of quality focuses on the nature of goods or services provided. This is best carried out by actual observation of personnel per formance and comparing actual practice with predetermined standards of performance. Another method is through studying the views of personnel working in the program and / or obtaining the reactions of the recepients of service. Quality audits based on record analysis do not usually produce reliable data in most developing countries.

Now Try out these questions :

1. Observing the way a doctor inserts IUD'S is measurement of the doctor's level of ..... — Performance

2. Asking the consumer's opinion of services provided is a form of measuring the ..... of service. — Quality

3. Quality of service can also be measured by interviewing .... — Working personnel

4. In most developing countries due to the relative inadequacy of registration,quality assessment through record audit is usually ..... reliable. — Not

Input V :

The final value judgement is carried out by comparing what has been done (Actual program operation) with what was expected to be done (objectives). This may be described in terms of the program's effectiveness and efficiency. Effect--iveness is measurement of the degree to which the service reaches its objectives. Efficiency on the other hand measures the degree to which objectives have been reached relative to cost or available resources. Available resources may also be referred to as " inputs " .

Now see if you can answer these questions :

1. If the actual number of Family Planning users is 3000 and the objective was to have 2300 the ..... of this program is therefore 130%. — Effectiveness

2. If in program "A" the objective was reached at a cost of 8 L.E / user and in Program "B" the same objective was reached at a cost of 10 L.E./ user, we say that Program "A" is more ..... than program "B" .

Efficient

Now Please take the post-test.

Post Test :

1. Ennumerate the three basic items to be determined in selection and clarification of the evaluation topic.

. Subject Evaluated
. Type of Evaluation
. Purpose of Evaluation

2. Why is it essential to clearly define program objectives as one of the first steps in the evaluation process.

To assess the degree of conformity of actual practice with predetermined objectives.

3. In determining utilization rates the size of the (population - personnel) should be included.

Population

4. The number of doctors working in the clinic is an (input/ output) of my clinic.

Input

5. The input/ output ratio is another way of stating (efficiency - effectiveness) of my program.

Efficiency

6. The quantity and ..... of service are both used as measures of evaluation of a program. **Quality**

7. Evaluation of program operation is one ..... of evaluation, **Type**

If you have missed any of the past test questions please turn back to the Input Unit related to them, if not you are now ready to go to the field for actual evaluation.

Appendix L

SELF-INSTRUCTIONAL TRAINING MODULE ON FETAL HEART SOUND (First Draft)

Title: Foetal Heart Spund

By : Soheir A. Mekhemar, Lecturer, Dept. of Family Health, H.I.P.H.

To : Nurses and midwives working in ante-natal clinics.

Background:

This module has been prepared to help you in your role in the ante-natal clinic . Foetal heart sound is not only a sound hear d by anscultation. It involves:

1- Palpation using the leopold lower manauvers to locate and identify the foetal position.

2- The use of an istrument to listen and count it for a whole minute.

3- The differentiation between foetal heart sound and maternal pulse.

4- The identification of normal and abnormal foetal sound such as very rapid and very slow

Pre-requisites: To hear, listen to and count the foetal heart require a thorough knowledge and understanding of the following:.

- Anatomy and physiology of the uterus, placenta and foetal.
- All possible positions and presentations of the foetus.
- Techniques and maneuvers of abdominal palpation of pregnant women.
- Mastering counting the radial pulse of the mother.
- Getting familiar with the instruments used to hear the foetal heart. especially the one commonly used in your clinic.

The package includes slides, photographs, drawings and illustration which will help you fulfill the pre-requisite, as well as to go through this module successfully.

This module is divided into small units known as frames. The following steps will help you utilize this module in the most effective way:

1- Read through the statements in each frame carefully.

2- Use and refer to the sources mentioned as required as possible.

3- Move over to the question that follows and cover the answer with a piece of paper.

4- Write your own answer to the question in the space or blank provided.

5- Refer to the correct answer only after you have written down your own answer to the question.

6- Move to the next frame and so on until you complete all the frames or units.

General Objective:

After completing this module the learner will able to hear, listen to, count and record the foetal heart sound per minute, to any primi or multi gravida attending the a te-nal clinic for her initial or follow up visit.

Sub-objectives:

To achieve the above mentioned objective you should be able to:

1- Define what is the foetal heart sound.

2- Identify and umerate the types of instruments used to listen to the foetal heart sound.

3- Differentiate between foetal heart sound and maternal puls .

4- Enumerate the steps followed in the process for hearing the foetal heart sound.

5- Locate and identifie the foetal position especially the common head presentation.

6- Site the best place to hear the foetal heart sound.

7- Identify the time of gestation when foetal heart could be first heart

8- Identify the normal and abnormal rates.

9- Interpret the normal and abnormal rates.

10- Record your findings as regards the rate with your interpretations.

What is the foetal heart sound ?

It is the sound caused by the pulsation of the umbilical vein which carries pure oxygenated blood to the foetal inculation. It is called sound because the vein cannot be palpated, but only pulsation heared.

Kindly refer to slide 1"the placenta structure photograph"

A) Foetal heart sound is caused by the ..... of the .....
which carries pure oxygenated blood to the foetal circulation.

B) The word sound is used because it can only be .....

A	B
1- Pulsation	hear d
2- umbilical vein.	

The sound is caused when the umbilical pulsates, carrying pure oxygenated blood to : 1- Maternal circulation

2- Foetal circulation

When the foetal heart is hear d pregnancy is positive . It leaves no doubts to the existence of pregnancy. It is one of the positive signs of pregnancy.

Would you please review the list of"signs and symptoms of pregnancy" in your package.

When the foetal heart is heared pregnancy is ..... . It leaves no doubts to the existence of ..... . It is one of the positive signs of ..... .

1- Positive 2- Pregnancy 3- Pregnancy

1- Foetal heart sound is the only positive sign of pregnancy.

2- Pregnancy is only positive when foetal heart sound is hear d.

3- One of the positive signs of pregnancy is the foetal heart sound.

Circle the correct statement

3- One of the positive signs of pregnancy is the foetal heart sound.

More than one type of instruments used to hear the foetal heart sound. They all fulfill the purpose . The simple bill stelhoscape is a satisfactory one. The fetuscope is another type. In cases of thi. abdominal wall, obeise women, excessive aminiotic fluid or whenever foetal heart is in audible, it is preferred to use the advanced electronic monitor.

Would you kindly refer to slide 2 to see the photograph of the three types of instruments used to hear the foetal heart sound.

The three types of instruments used to hear the foetal heart sound are ....

Bell Stelhoscope , fetuscope , advanced electronic monitor.

We can hear the foetal heart sound using the bell stelhoscope and the fetuscope. But in cases of ....., ..., and excessive aminiotic fluid, or inaudible foetal heart sound, the ------ ------ ------ is preferred.

1- Which abdominal wall

2- Obseity

3- Advanced electronic monitor.

The nurse in the ante-natal clinic is responsible to hear the foetal heart sound. It is one of the ante-natal activities. Foetal heart sound is checked for every expectant mother in her 20th week of gestation.

Review "The role of the nurse in the ante-natal period in a clinic setting " in the pachage.

Foetal heart sound is checked for every ..... mothers visiting the ante-natal clinic when she has completed .... of gestation.

Expectant - 20 weeks.

Every expectant mothers visiting the ante-natal clinic should have the foetal heart checked when she has completed 17 , 13 , 20 , 24 weeks of gestation.

Circle the correct answer.

Foetal heart is best heared on the back of the foetus. For example if the position of the foetus is left occipito Anterior it is heared on the left lower Quadrant of mother's abdomen.

Please see slide No. 3 in the pachage.

Foetal heart is heared best on the of the foetus. If the foetus position is Right Occipito Anterier, foetal heart is heared best on .... ------- of mothers abdomen.

Thick abdominal wall and excessive aminiotic fluid render foetal heart sound in audible.

In obeise women foetal heart seund is easy, difficult to be heared.

Which is correct ? check your choice ( ).

difficult.

The same is noticed when there is ..... aminiotic fluid

excessive.

The site to hear best the foetal heart is, is not related to foetal position. It can , cannot be heared any site of mother's abdomen with

equal unequal check your correct answers

is . cannot . equal

Before listening to foetal heart sound the nurse should stand in special position in relation to the mother. Stand by the sicle facing the mother. Palpate gently using both hands to be locate infant back (right or left). Then with opened fingers pearhand locate and hold the presenting part with. Ascertain what is lying at the fundus (upper part uterus) with both hands.

Kindly see the moving slides about palpation procedure.

in slides No. 4 , 5, and 6.

- The nurse can hear the foetal heart sound only after she .... of the foetus. It might be ....

locate back right left

- palpation is done with one , both hand(s)

what do you think ? both hands

Occipital or head is the presenting part in the majority of conditions. The most common of these are:

Left - Occipito - Anterior (L. O. A.)

Right - Occipito - Anterior (R. O. A.)

Left - Occipito - Posterior (L. O. P.)

Right - Occipito - Posterior (R. O. P.)

Would you please enumerate the four most common head presentations giving the necessary abbreviation for each.

Left - Occipito - Anterior (L.O.A.)

Right - Occipito- Anterior (R.O.A.)

Left - Occipite - posterior (L.O.P.)

Right - Occipito - posterior (R.O.P.)

See the picture of the 4 types of presentation in your package. Try to label an each of them the position of the foetus. Would you see the slides 7 and 8 on foetal pulpation.

The leopold maneuvers are followed to make the palpation successful . They are four maneuvers.

See the moving slides on these four maneuvers No. 1 moving slides.

- To ascertain what you are hearing is the foetal heart sound, you must differentiate between maternal pulse and foetal pulse. At the same time you are listening to the foetal heart sound, hold mothers hand to feel and count her pulse.

  To differentiate between maternal and foetal pulse, hold .... at the same time of listening to the ....

  Mother - hand - foetal .... heart - sound.

  The rate of normal foetal heart sound is 140 beats per minute. It ranges between 120 - 160 beats per minute. If the rate exceeds 160 or is less than 100 beats per minute, it indicates foetal stress, and should be immediately reported.

  Very rapid foetal heart sound that exceeds ----- or very low less than ..... per minute is a sign of foetal and should be reported.

  160 - 100 - distress - reported.

- While listening to the foetal heart sound two additional sounds might be heard. The funis souffle which is soft blowing murmur caused by blood aushing through the umbilical cord. Its rate is synonymous with that of the foetal heart sound since is caused by the blood propelled by the foetal heart, and is about 140 per minute.

  The other sound is the uterine souffle which is caused by the blood aushing through the large vessels of the uterus. It is synonymous with maternal pulse since it is propelled by maternal heart. It is about 80 beats per minute.

Uterine souffle is synonymous with foetal, maternal heart rate, and is about beats per minute. It is propelled by foetal, maternal heart. While funic souffle caused by foetal - maternal heart as synonymous with foetal, maternal pulse and is about beats per minute.

Please rewrite the statement in the correct form.

Uterine souffle is synonymous with maternal heart rate, and is about 80 beats per minute. It is propelled by maternal heart. While funic souffle caused by foetal heart is synonymous with foetal heart rate pulse and is about 140 beats per minute.

Now congratulation you have passed through this unit successfully and you are now able to locate, listen to, count and record foetal heart correctly, for every expectant mothers in her 20 weeks of gestation.

Appendix M

TWELVE-MONTH BUDGET
FOR PROGRAMMED-INSTRUCTION PROJECT/WORKSHOP

Appendix M

A STUDY OF PROGRAMMED-LEARNING FOR
CONTINUING EDUCATION IN FAMILY PLANNING IN EGYPT

Twelve-Month Budget for Programmed-Instruction Project/Workshop

Items	Costs/$
Paper, Supplies, Typist, and Questionnaire (15 modules x 200 each)	5,000
2 Co-Principal Investigators, 12 months (part-time)	2,000
Module Developers	450
Secretarial and Typist, 12 months (part-time)	1,200
Translation	2,250
Transport	3,500
Consultants	1,200
Photography	200
Postage, Telephone and Telegrams, Contingency (including refreshments)	300
Evaluation Costs:	
- Interviewers (4)	700
- Data Gathering, Processing, and Analysis	1,500
- Preparation and Publication of Final Report	500
- Dissemination Conference	3,000
TOTAL	$22,000