

67: 67

**A Report  
for  
Delivery Order No. Nine  
Under  
Contract No. EDC-1109-I-00-7118-00**

**Final Report for the  
Egyptian National Center for  
Curriculum Development**

**USAID/Egypt**

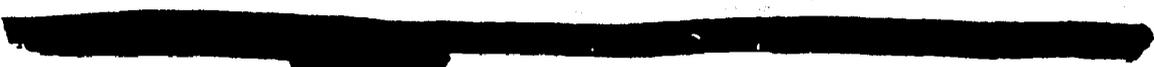
**Team Members:**

**Richard Cowell  
Gerald Firth  
Layla Sabie  
Carol Allred  
John Pancella  
Beverly Hunter  
David Payne**

**Submitted by:**

**EDC  
Education Development Center, Inc.**

**May 24, 1989**



edc international  
programs

USAID IQC Report for  
the Egyptian National Center for Curriculum Development

Cairo, Egypt

Team Members

Richard Cowell, *Chief of Party*  
Gerald Firth, *Instructional Design Specialist*  
Layla Sabie, *Arabic Language Specialist*  
Carol Allred, *Development Psychologist*  
John Pancella, *Science Curriculum Specialist*  
Beverly Hunter, *Computer Application Specialist*  
David Payne, *Evaluation Specialist*

Contents

Final Report

Attachment A: Functions of the National Center for Curriculum Development

Attachment B: Work Plans

Attachment C: Schedule of Lectures and Workshops

Attachment D: CCD Priorities

Attachment E: Form: Description of Present Curriculum Materials

## FINAL REPORT

Education Development Center  
Mobilization Team, February 9 to May 5, 1989  
Curriculum Development Center  
Cairo, Egypt

This report will comment on the fourteen points in the Mobilization Team's Work Plan as outlined in PIL 33. Letters and numbers below are according to the system used in this PIL.

### a.1. Complete staffing pattern and job descriptions.

A major problem facing the Curriculum Development Center ( CDC ) at the time of the mobilization team's arrival was the determination of the Center's responsibilities. Although there were many general notions "in the air" on this subject, there was no statement of any kind concerning what the Center was or was not to do. Thus the issue of staffing patterns and job descriptions could not be addressed directly until this prior issue was solved. Dr. Kouchok expressed considerable frustration over this lack of a clear statement concerning the Center's responsibilities and expressed the need for criteria which would allow her not only to prioritize work but also to accept or reject work on the basis of whether or not it constituted a legitimate part of the Center's mandate. She found herself responding to many "ad hoc" requests without knowing whether meeting such requests was a part of her job and the Center's job or not.

The Mobilization Team provided Dr. Kouchok with several drafts of a statement of the Center's responsibilities. These drafts were discussed and revised for several weeks by both the team and by Dr. Kouchok and her staff. A list of thirteen responsibilities was finally agreed upon by all. This list was approved by Dr. Mawgood and Minister Surour on April 19.

A basic organizational structure for the Center was outlined in the report by Creative Associates titled "A National Center for Curriculum and Materials Development." However, during discussion with Dr. Mawgood it became apparent that his thinking had changed somewhat since this report was written. The team prepared a new structure and a list of functions for each part of this structure which was congruent with these changes. However, these new structure and functions were not totally satisfactory to all, and it took considerable time to integrate the old and new structures in an acceptable manner ( See Attachment A ) This work was delayed somewhat by the absence of the major author of the new structure for some weeks in the middle of the mobilization period. However, the new structure and functions were also approved by Dr. Mawgood and Minister Surour on April 19.

Staffing patterns had to wait until approval for structure and functions was obtained. But considerable conversation has taken place on this issue, and the team has suggested the percentage of Center staff that should eventually be assigned to each department in the new structure. Given other demands on the team's time, work in this area could not be carried further during the mobilization period. However, the job descriptions provided in the Creative Associates report are still accurate, in general; and little needs to be done to them to make them match the changes in the structure.

One exception to this statement is the addition of regional responsibilities to the Center. If it is to serve as a clearing house in the Middle East and Arabic speaking world for ideas and practices concerning curriculum design and educational materials development and as a training facility for educators from this larger region, new positions will have to be added. However, such regional responsibilities are a recent decision by the Minister, and their full implications are unclear at this point.

a. 2. Make final commitments for hiring of complete staff.

Approximately forty-five, or one-third, of the total expected Center staff have been hired to date. The remaining approximately 100 staff will be added over the next six to twelve months. In order to meet changing needs and priorities, the Center must make imaginative use of temporary and part time staff and retain considerable flexibility in staffing. Characteristics of needed staff have been discussed in a general way and have been presented in written form for all departments. Statements of needed staff skills presented in the Creative Associates report remain valid, in general, as the tasks envisioned for the Center have not changed greatly due to the modification of structure and function. Middle East regional responsibilities, however, have been added.

a.3 Equip center with sufficient basic office supplies, start-up equipment and staff training materials, and

a.4. Specify and order long term procurement needs for the center.

There was no true expert in equipment on the mobilization team. Some one who has been engaged in the specific physical design and production of non-textbook educational materials will need to advise the Center on the procurement of appropriate design and production equipment and supplies. Rather than give inappropriate advice which would result in the Center's wasting scarce financial resources to order equipment and supplies which would not meet their needs, the team chose to advise only in areas in which it felt competent. Each team member except one left with Dr. Kouchok his or her suggestions and recommendations for the procurement of equipment and supplies in areas of their own interests and expertise.

To be a full fledged curriculum development facility, the Center will eventually need to have a complete design studio; complete production facilities to produce non-text materials in wood, plastic, metal, leather, cloth, etc.; a photographic laboratory; a desk-top publishing facility; workshops with tools; a large amount of room for storage; a complete library and educational resources center containing A-V equipment and supplies as well as books and a full range of educational materials; and doubtless a number of other things that this team has been unable to think of. Presently, adequate office supplies ( paper, paper clips, wastebaskets, file folders, pens, binders, stationery, colored pencils, gummed labels, scotch tape, etc. ) are not yet available. This would be a good place to start.

b.1. Establish scope and sequencing chart for all subjects K-12.

The team created a structure for the Scope and Sequence Chart for all subject matter areas at all grade levels, K-11. Complete development of this structure was provided for science at grades 5, 6, and 7 and for Social Studies at grade 5. The intention was to provide this development in Mathematics at the fifth grade level also. However, the major author of this work was ill for

his final week in Egypt, and his Egyptian colleagues were not able to finish the work in its entirety without him. He took the work back to the U.S. to be completed there. It will be sent to the Center in two or three weeks.

These subjects were chosen because of the expertise of the Egyptian and American educators available. The grade levels were chosen because it was considered desirable to have models somewhere toward the middle of the curriculum sequence, because some of these areas are integrated with other areas in earlier grades, and because the fifth grade is of particular concern due to the recent decision to reduce the primary years from six to five. A "cross" of models ( three years in a row in one subject matter and three subjects in a row in one year ) was chosen so that both vertical and horizontal articulation could be illustrated.

In addition to the above, Sabie led the Arabic team in the partial development of models in grade 1 through grade 5 in Arabic language. However, these have not yet been translated into English, so it is not yet possible to determine how they fit with the other five models.

However, even with the four models available, the Center staff can find ample guidance for their own development work in other subjects and at other grade levels. This work will be one of the Center's highest priorities, as the development of truly excellent educational materials depends upon it.

b.2. Prioritize type and level of center output and link with targeted production dates.

Attachment B is a draft workplan for the Center for approximately the period May 15, 1989 to May 14, 1990.

As mentioned above, the structure and functions of the CDC were not approved until April 19. To date the CDC staff members have been working in teams focused on the traditional subject matter divisions. Rather than rush the assignment of staff members into the five functional units in order to have them start planning and thereby risk inappropriate or unsatisfactory assignments which would be difficult to change at a later date, it was decided to make these assignments in a more orderly and systematic way after due consideration by the staff members themselves and an analysis of staff abilities and interests by the Center leadership. To aid in this assessment, the mobilization team provided an analysis of characteristics needed by members of different departments and levels of assignment.

Thus, the attached draft work plan is largely the creation of the mobilization team itself with only minimal consultation with Egyptian colleagues. Staff members should be assigned to their functional units in May, and as soon as this occurs one of their first and highest priority tasks will be to review and revise the attached draft work plan. Hopefully, this task will not be allowed to take up a great deal of time, as, until the plan is revised and agreed upon, the work proper cannot begin in anything more than a token manner.

b.3. Orient staff to specific task expectations and prepare them for productive roles.

Curriculum Development Center staff training has been a particular focus of the mobilization period. This training has been of two different types - formal and informal.

(1) Formal. Eighteen formal training seminars or workshops were offered by the Mobilization Team ( See Attachment C ). Each workshop was offered for the entire CDC staff, was designed to be introductory in nature, and was approximately two hours long. Two workshops are not listed in

Attachment C. One was offered on February 16 by Cowell and Firth. It was designed to help prepare the staff for the description and analysis of existing educational materials, chiefly textbooks. The second was offered by Cowell on March 26. It was designed to get the staff involved in creating, understanding and using the new structure and functions of the Center.

(2) Informal. A great deal of time was devoted to informal talks with Egyptian colleagues in small groups or on a one-to-one basis. These were often of the "wander by the desk" variety, although some were more formally scheduled with committees in the case of Arabic ( Sabie ), Science ( Pancella ), Evaluation ( Payne ), Social Studies ( Cowell and Firth ), and an "ad hoc" computer group ( Hunter ). This type of training was deemed appropriate because many of the Center staff are older and quite experienced educators whom we wanted to put in a collegial rather than a teacher - student relationship.

b.4. Design/conduct awareness workshops in MOE curriculum design priorities for selected teachers and educators.

See comments in b.3. above. Dr Kouchock defined "selected teachers and educators" as the CDC staff. On occasion, prospective staff or interested professionals were invited to attend the sessions.

c.1. Recommend short and long term priority areas for center output to the Ministry.

Mobilization team members, individually and in groups, held frequent conversations with Dr. Kouchock on this issue. The Center, indeed, faces a formidable task, as most areas of its activity are priority areas. As a culmination to these conversations, a formal list of priorities ( See Attachment D ) was drawn up by the team and discussed fully with Dr. Kouchock during the final week of the mobilization period.

c.2. Develop and conduct preliminary testing of "quick fix pieces" ( educational materials, handouts, wall charts, text supplements, etc.) for September 1989 classroom use.

The mobilization team developed definitions and criteria for "quick fix" ( now called "sample activities" ) items. It gave a workshop to all Center staff on these definitions and criteria. It produced nine sample activities ( containing a total of fifty-six separate student activities ) fully designed and ready for translation and production. It also produced one sample activity for teachers, also ready for translation and production. In addition, Sabie spent three weeks in the U.S. searching for materials suitable for the Center's Resource Library, producing sample activities, and translating sample activity type items into Arabic. At this writing most of these materials have reached the EDC office and are in process of being shipped to Egypt.

All team members, but particularly Pancella and Allred, met with Center staff who were creating sample activities. Some of these activities were more developed than others, but many were imaginative and carefully thought out and were quite promising. A list of these staff members and the sample activity projects they are working on was given to Dr. Kouchock.

d.1. Establish procedures and guidelines for review of existing MOE curriculum.

An early activity of the mobilization team was the creation of a simple scheme ( See Attachment E ) to use in the description and analysis of the existing curriculum. This curriculum

is embodied principally in syllabuses containing objectives and topic outlines and in textbooks. This scheme was presented by the team during the Center's first staff meeting. The Center staff, organized into subject matter groups, spent three weeks in the description and analysis process - with generally good although somewhat uneven results. The descriptions and analyses were not particularly sophisticated, but they were good starts in a positive direction and helped the staff look at curriculum and its development in a new way. Later, Sabie was able to work intensively with the Arabic team on this activity and helped them refine their description and analysis considerably.

d.2. Hire and manage necessary specialists to review current materials.

The description and analysis of current curriculum materials was conducted entirely by the Center staff with help, when requested, from the mobilization team. No outside educators or specialists were hired to assist in this task.

d.3. Make recommendations for changes in current material and incorporate, as appropriate, in future material.

This was done informally and continuously throughout the entire mobilization period. Indeed, it is an "umbrella" statement for many of the activities accomplished during this period. However, specific recommendations, as such, were not made in written form.

d.4. Provide other professional guidance in curriculum development, as needed.

As anticipated, there were a number of instances when a situation arose in which the mobilization team could be helpful. We responded when we could to these "needs of the moment," and were able to provide assistance in a variety of ways. These included, in arbitrary order:

(1) A promotional pamphlet. The team produced the Center's first promotional material, a six page pamphlet or brochure which contained text and suggestions for pictures and graphics. This was translated into Arabic and is now in preparation for production.

(2) Educational materials competition criteria. The team produced a memo on this subject and a lengthy list of suggestions for improving the original document produced by the MOE which outlined competition criteria. Our suggestions were deemed important enough to delay publication of the document briefly in order to incorporate them.

(3) Scoring system for the educational materials competition. The team produced a manual for quantifying the competition judges' results and scoring the entries.

(4) Evaluation handbook. The team produced a handbook covering the basic principles and tasks of the type of evaluation to be undertaken by the Center.

(5) Interim work plan. The team produced a very brief interim work plan to be used to outline the immediate work of the Center and to orient the Minister to this work.

(6) Computer training. One team member was a specialist in computers, and in her four week assignment she succeeded in:

- (a) Helping to arrange for loaner computers and other hardware
- (b) Installing these computers and getting them operational

- (c) Identifying two talented staff members with interest in computers
- (d) Training these staff members in selected computer skills which will be needed in the production of curriculum and training materials
- (e) Training all CDC staff members in basic computer skills at an elementary level
- (f) Helping plan the future use of computers in the Center
- (g) Identifying needs in computer hardware, software, and maintenance
- (h) Identifying needs in further personnel training in the area of computers
- (i) Providing liaison with the British Council team working on item banking of national test items
- (j) Discussing a large number of books, articles and other printed matter relevant to computers with selected staff and establishing the core of a computer library at the Center with materials she donated

(7) A scheme for technology education. The team produced a plan for including technology education in the curriculum and an outline for an approach to be taken and content to be covered.

(8) Participation in the Creativity Workshop. The team attended parts of a four-day national workshop on creativity and offered a demonstration and panel presentation on the final day of the conference.

(9) Meeting with counselors. The team met with the Minister of Education and, at his direction, met with the three counselors in charge of areas where educational materials competitions are about to be undertaken in order to share ideas and to begin to "build bridges" between the Center and other parts of the MOE. It is important that these efforts continue, although specific next steps have not been planned.

(10) Materials. The team, particularly Pancella, Hunter and Allred, donated a large number of educational materials and printed matter to Dr. Kouchok to help with the formation of the Center's Resource Materials Library. In many cases, the team was able to discuss individual items with Dr. Kouchok or selected staff members and indicate how these materials could be best used. In some cases annotations to this effect were left behind with the materials.

(11) Work style. Individual team members had informal conversations with Dr. Kouchok and selected staff members concerning Center organization, communications flow, and work style. One lengthy formal meeting was held with Dr. Kouchok on this topic, one workshop training session was devoted to it, and a list of specific recommendations was left at the Center.

(12) UNESCO. Three team members visited the UNESCO Regional Office for Science in Garden City. They had extensive conversations with the librarian who was most cooperative. They examined the small but excellent collection of science education materials and arranged for an exchange of materials with the Center and for use of the UNESCO library by Center staff.

(13) Center lay-out and physical arrangement. The team consulted with Dr. Kouchok and Dr. Fadel on the issues of how the Center should be arranged, where walls, desks and other furniture should be placed, the arrangement and placement of Center staff, and changes in this arrangement as the staff grows and as their functional assignments become more specific.

(14) Liaison with others working in the Center. The team had frequent conversations with personnel from the British Council and the Harvard planning group about coordinating our efforts and sharing ideas and results.

(15) Committees. Two committees were formed to carry on the work in Center communications and in effective education. These committees had an initial organizational meeting, and a list of their members was given to Dr. Kouchok.

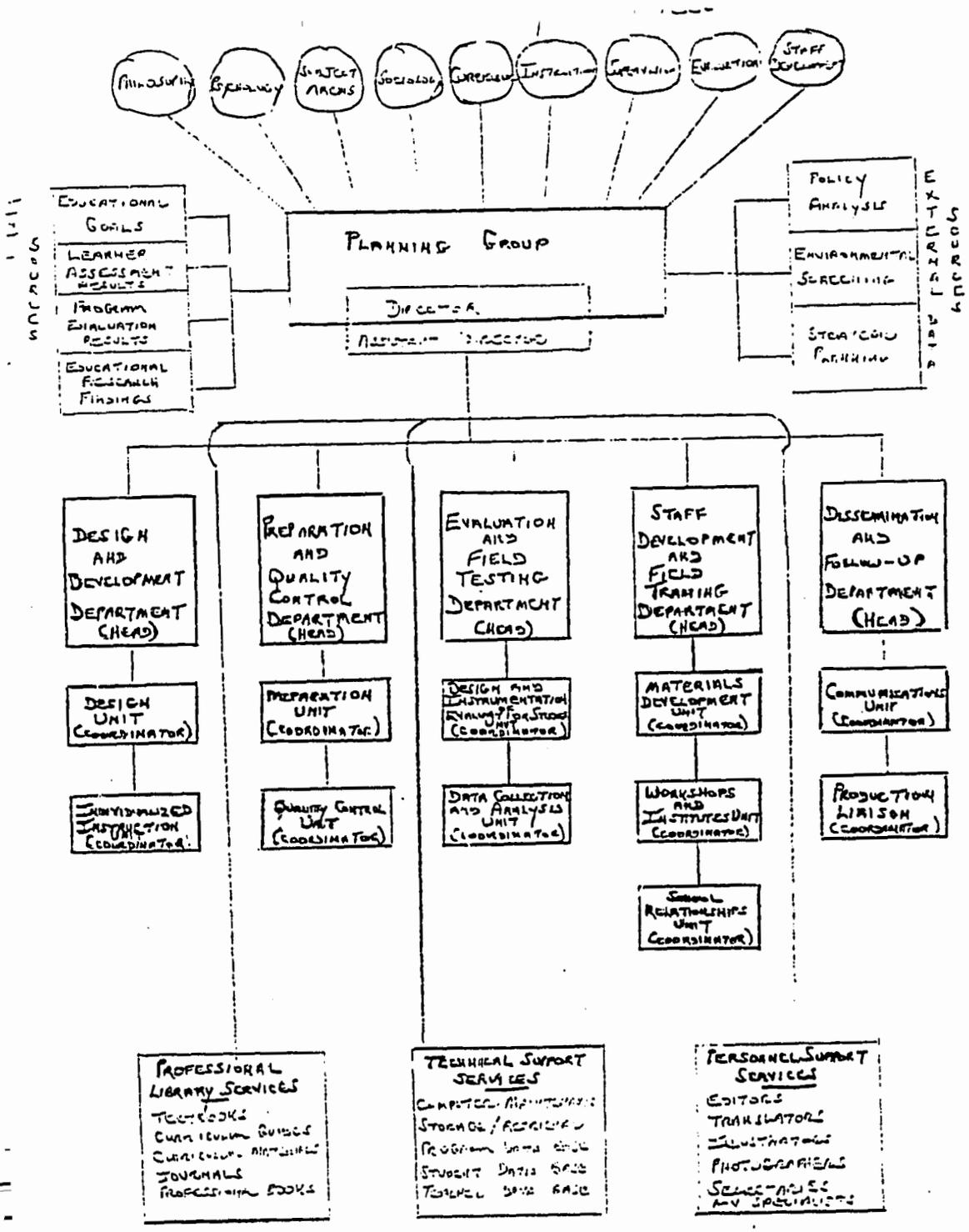
*Subject Matter Integration.*

(16) The team developed simple schemes for the integration of the different natural science areas and for the integration of the social science areas and presented them to Dr. Kouchok.

(17) What works. To help meet a USAID need for future planning for inputs to the National Center for Educational Research and Development, the team produced a series of informal memos on what seemed to work best during the mobilization period.

(18) Tone and image. Most importantly of all, the team strove ( in this writer's opinion, generally with success ) to create a warm and open atmosphere in which Egyptian and American educators saw each other as colleagues and realized that each group could help the other in a variety of important ways. The team tried to help create an atmosphere of mutual friendship, support and trust. We like to think that this will be of considerable aid to the longer term team soon to arrive. While such an effort cannot be quantified and cannot form part of a formal work plan, we feel that our achievements in this area are fully equal to the training, materials and other help we were able to contribute, and are one of our most important legacies to the Center. I know that I speak for all of the team members in saying that it was a growthful and pleasant experience to work in the Center and that we are grateful for the opportunity to do so.

*Richard N. Cowell*  
*May 4, 1989*



ORGANIZATION AND STRUCTURE  
OF THE  
CURRICULUM RESEARCH AND DEVELOPMENT DIVISION

## FUNCTIONS OF THE NATIONAL CENTER FOR CURRICULUM DEVELOPMENT

Clearly the National Center for Curriculum Development is conceived of as a major instrument in the accomplishment of the long-range goals established for the reform program in the Egyptian system of education. These goals are:

1. To develop the Egyptian individual capable of coping with the changes of the future;
2. To develop a productive society;
3. To realize comprehensive progress, including socio-economic and cultural development; and
4. To prepare a generation of scholars capable of inventing and adapting creative ways to improve living standards. ( Surour, 1989 )

The attainment of these goals will require that the Curriculum Development Center play a variety of roles which are imaginative, insightful, initiating, integrating, and inspirational. The most significant and pervasive challenge for the Curriculum Development Center is, in the words of Minister Surour, to encourage students "to dream things that do not exist and ask why not." The following pages describe a functional structure which is intended to facilitate review and revision of existing scope and sequence for educational programs and development of creative, innovative, and appropriate learning materials.

## A. Planning Group

( Program Oriented )

Chairperson - Dr. Kawsar

Consultant - Dr. Mawgood

one representative from the Design and Development Department

one representative from the Preparation and Quality Control Department

one representative from the Evaluation and Field Testing Department

one representative from the Staff Development and Field Training Dep't.

one representative from the Dissemination and Follow-Up Department

other *ad hoc* members, as needed

### Functions

1. Establish goals for all curricula.
2. Set policies for curriculum research, design, production, evaluation, and dissemination.
3. Determine priorities for curriculum change, development, improvement, review, revision, refinement, and evaluation.
4. Utilize counsel of academic scholars in fields of philosophy, psychology, sociology, curriculum, instruction, supervision, staff development, evaluation, and subject disciplines.
5. Involve representatives of design, production, training, evaluation, and dissemination in the program planning process.
6. Utilize internal data sources, including educational goals, learner assessment results, program evaluation results, and educational research findings in the program planning process.
7. Utilize external data sources, including policy analysis, environmental scanning, and strategic planning in the program planning process.
8. Plan scope and sequence chart for all grade levels in all subject matter areas.

9. Insure vertical and horizontal articulation and balance in objectives and among subject areas, content emphases, instructional strategies, and resources materials.

10. Plan the monitoring of potential application to the Egyptian educational system of innovations and emerging trends in education from other nations.

11. Plan the maintenance of communications with similar curriculum development centers throughout the world.

12. Review invitations for assistance and/or cooperation from educational agencies in other countries, particularly throughout the region, and plan the provision of staff development for curriculum design, educational materials, and/or in-service teacher training.

B. Design and Development Department

( Process Oriented )

Department Head

(1) Design and Development Unit

Unit Coordinator  
staff

Functions

1. Analyze existing curriculum: objectives, content, teaching models, instructional materials, curriculum guides, and supplementary resources.
2. Prepare scope and sequence chart by program level and grade for each subject area.
3. Recommend curriculum activities to Planning Group.
4. Determine operations and scheduling for design of curriculum materials, instructional strategies, and teacher's guide materials.
5. Translate curriculum goals into objectives for specific materials development projects.
6. Form appropriate teams charged with responsibility for preparing objectives, content ( knowledge, skills and attitudes ), teaching models, instructional materials, curriculum guides, and supplementary resources.

(2) Individualized Instructional Materials Unit

Unit Coordinator  
staff

Functions

1. Prepare specifications and examples of textual presentation, learning activities, instructional strategies, supplementary reading, and resource materials targeted for students who are bright ( enrichment ), slow learners ( remedial ), creative or talented, or who possess special learning disabilities ( sight impaired, hearing impaired, emotionally disturbed, physically handicaped, or mentally retarded ).

2. Monitor work of writing teams and/or individual authors and apply criteria to all educational materials prepared under the aegis of the Curriculum Development Center.

C. Preparation and Quality Control Department

( Product Oriented )

Department Head

(1) Textbook and Resource Materials Preparation Unit

Unit Coordinator  
staff

Functions

1. Select appropriate subject writing teams and/or individual authors to prepare textbooks and/or resource materials and teacher's guides according to curriculum specifications established by the design teams and approved by the Individualized Instructional Materials Unit.
2. Prepare and monitor the preparation of textbooks and/or educational materials according to appropriate schedules.
3. Coordinate the preparation or selection and the use of the following items in textbooks, educational materials, and teacher's guides:
  - a) art work, illustrations, and photographs
  - b) charts, graphs, and maps
  - c) films, audio and video tapes, film strips and A-V materials
  - d) radio broadcast scripts and guides
  - e) computer software

(2) Quality Control Unit

Unit Coordinator  
staff

Functions

1. Define criteria for quality control standards to insure adequacy of textbooks and educational materials.
2. Review content, format, layout, size, extent, and other characteristics of textbooks and educational materials in view of curriculum specifications and contractual agreements and apply criteria to textbooks and educational materials.
3. Analyze data generated during the field testing period as bases of approval, modification or rejection of textbooks and educational materials.
4. Recommend approval of textbooks and educational materials to the Director of the Curriculum Development Center.

D. Evaluation and Field Testing Department

( Performance Oriented )

Department Head

(1) Design and Development Unit

Unit Coordinator  
staff

Functions

1. Create appropriate data collection designs.
2. Specify sampling plans, as needed.
3. Design appropriate instrumentation.
4. Establish procedures for monitoring curriculum implementation.
5. Develop methods to evaluate instructional materials.
6. Develop instrument collections and item banks.
7. Design in-service training program evaluation studies.

(2) Data Collection and Analysis Unit

Unit Coordinator  
staff

Functions

1. Establish procedures for data collection, recording and transmission.
2. Conduct appropriate statistical analyses.
3. Conduct cost-effectiveness and cost benefit analyses.
4. Prepare summary reports for curriculum decision makers and planners.
5. Interface with other Ministry of Education data collection sources.
6. Conduct instrument development analyses.

E. Staff Development and Field Training Department

( Personnel Oriented )

Department Head

(1) Materials and Protocols Development Unit

Unit Coordinator  
staff

Functions

1. Develop materials and instructional strategies for staff development of teachers, supervisors, administrators, and monitors, local and foreign
2. Explain training materials and instructional strategies.

(2) Institutes and Workshops Unit

Unit Coordinator  
staff

1. Provide in-service education for teachers, supervisors, administrators, and monitors, local and foreign, who are or will become trainers.
2. Train individuals who will monitor the field testing phase.

(3) School Relationships Unit

Unit Coordinator  
staff

Functions

1. Select schools for field testing of materials and instructional strategies.
2. Monitor field testing of materials and instructional strategies.

F. Dissemination and Follow-Up Department

( Public Oriented )

Department Head

(1) Production Liaison Unit

Unit Coordinator  
staff

1. Relate preparation of textbooks and educational materials to production system of the Ministry of Education.
2. Provide textbooks and educational materials ready for reproduction.
3. Relate preparation of textbooks and instructional materials to distribution system of the Ministry of Education.

(3) Communications Unit

Unit Coordinator  
staff

1. Orient faculty at university departments of education regarding new and revised textbooks and educational materials to assist incorporation of current curriculum into pre-service programs of teacher preparation and other appropriate areas of instruction.
2. Relate preparation of textbooks and educational materials to in-service programs of teacher preparation conducted by the Ministry of Education.
3. Relate preparation of textbooks and educational materials to monitoring systems of the Ministry of Education.
4. Relate preparation of textbooks and educational materials to school visitation and classroom observations.

5. Solicit information and ideas regarding educational needs and curriculum development from the Ministry of Education; from other organizations, agencies, and institutions; from the schools; and from the general public, as appropriate.

6. Maintain liaison with curriculum development centers and similar institutions in selected foreign countries, exchange information and materials with them, and arrange training, as feasible.

## WORK PLAN

### A. Planning Group

#### **A.1. Establish goals for all curricula**

##### Activities:

- Appoint sub-committee for "Establishing Curriculum Goals," and a chairperson of this sub-committee
- Determine what goal statements for curriculum currently exist
- Develop master list of current goal statements
- Determine what goals are stated for national development
- Determine what goals are stated for education in general
- Determine adequacy of current curriculum goal statements in light of goals for national development and education in general
- Revise curriculum goal statements in light of last activity
- Submit draft goal statements to full Planning Group for review
- Revise draft goal statements in light of this review
- Submit revised draft goal statements to proper authorities for review
- Submit revised draft goal statements to panel of educators, including teachers and administrators from the schools for review
- Revise goal statements in light of review by authorities and panel
- Submit final draft of goal statements to proper authorities for approval
- Publicise and distribute goal statements
- Establish mechanism for regular and systematic review and up-date of curriculum goal statements

##### Output:

- List of goal statements for the curriculum
- Sub-committee and chairperson
- Mechanism for up-dating

Responsibility: ● Chairperson of sub-committee

Personnel: ● Committee members

Start-Duration: ● Day 1 to day 60 ( ALL FIGURES ARE WORK DAYS AND ARE  
BASED ON 240 WORK DAYS PER YEAR )

##### Strategy/Process:

- Appoint people with interest in the task and able to work with speed.
- Insure review groups take quick action
- Publicise goal statements widely

Monitoring: ● Weekly written report of progress and problems to the Center Director

Resources: ● Budget ● Access to MOE records

**A.2. Set policies for curriculum research, design, production, training, evaluation and dissemination**

**Activities:**

- Appoint sub-committees for each area ( research, design, production, training, evaluation, and dissemination ) and chairpersons for each sub-committee. Include appropriate center staff on each committee
- Collect and review any existing MOE statements of policy in these areas
- Produce draft policies in light of this review and of curriculum goals determined above
- Submit policies to Planning Group for review
- Revise policies in light of Planning Group input
- Submit revised policies to proper authorities for review
- Revise policies again in light of this input
- Submit revised policies to proper authorities for approval
- Establish procedure for systematic review and revision of policies on a regular basis

**Output:**

- Statement of policies
- Six sub-committees with six chairpersons
- Mechanism for up-dating

**Responsibility:** ● Six chairpersons of sub-committees

**Personnel:** ● Committee members      **Start-Duration:** ● Day 1 to day 30

**Strategy/Process:**

- Appoint people with interest in the task and able to work with speed.
- Insure review groups take quick action

**Monitoring:** ● Weekly written report of progress and problems to the Center Director

**Resources:** ● Budget      ● Access to MOE records

**A.3. Determine priorities for curriculum change, development, improvement, review, revision, refinement, and evaluation**

**Activities:**

- Appoint sub-committee for determining priorities among development options. Insure that at least one evaluator is on the sub-committee.
- Review goal statements for national development
- Review goal statements for educational development
- Review goal statements for curriculum development
- Review budget and personnel capabilities of the CDC
- Determine criteria for prioritization
- Apply criteria and make initial prioritization
- Submit initial prioritization to Planning Group for review
- Revise prioritization in light of input from Planning Group
- Submit revised priorities to proper educational authorities for review
- Revise priorities in light of input from educational authorities
- Submit revised priorities to Planning Group for approval
- Disseminate priorities to all center staff and to other relevant educators, people and institutions

927

- Create mechanism for regular review and up-date of priorities list

Output:

- Statement of priorities for curriculum development and evaluation
- Sub-committee with chairperson
- Mechanism for up-dating

Responsibility: ● Chairperson of sub-committee

Personnel : ● Committee members                      Start-Duration: ● Day 30 - day 65

Strategy/Process:

- Appoint people with interest in the task and able to work with speed.
- Insure review groups take quick action

Monitoring: ● Weekly written report of progress and problems to the Center Director

Resources: ● None

**A.4. Utilize counsel of academic scholars in fields of philosophy, psychology, sociology, curriculum, instruction, supervision, staff development, evaluation and subject disciplines**

Activities:

- Examine curriculum priorities as described in the last activity for needed outside consultation
- Examine budget to determine money available to hire outside consultants
- Prioritize consultation needs
- Create job descriptions for each consultancy
- Determine potential consultants
- Match consultants to needs
- Contact potential consultants to determine availability and acceptability of job description, fees, and timelines
- Hire consultants
- Review process used in order to improve it when it is used again

Output:

- List of potential and actual consultants
- List of job descriptions
- Mechanism for up-dating

Responsibility: ● Chairperson of Planning Group

Personnel: ● Members of Planning Group                      Start-Duration: ● Day 40 - day 70

Strategy/Process: ● Search for consultants with true interest in curriculum development and time to devote to their assignments  
● Write clear, specific and complete job descriptions

Monitoring: ● None

Resources: ● None

**A.5. Involve representatives of design, production, training, evaluation, and dissemination in the planning process**

Activities:

- Analyze skills required by the Planning Group in the areas of design, production, training, evaluation, and dissemination
- Analyze talents and abilities of members in each of these five departments
- Make preliminary first and "back up" choices of appropriate personnel
- Ascertain interest of these personnel in serving as either permanent or "ad hoc" members of the Planning Group
- Appoint appropriate personnel
- Establish procedures to reassess at regular intervals Planning Group needs and the Planning Group membership appropriate to meet these needs

- Output: ● All CDC departments are represented in the Planning Group
- Skills analysis of staff
  - Mechanism for up-dating

Responsibility: ● Chairperson of Planning Group

Personnel: ● Members of Planning Group      Start-Duration: ● Day to day 15

Strategy/Process: ● Insure that prospective Planning Group members are fully aware of duties they will perform and are willing to work hard

Monitoring: ● None      Resources: ● None

**A.6. Utilize internal data sources, including educational goals, learner assessment results, program evaluation results, and educational research findings in the program planning process**

Activities:

- Identify areas where internal data sources will be needed for carrying out planning
- Determine the timing of these various needs
- Prioritize these areas
- Identify internal data sources available
- Identify methods of obtaining or accessing these sources and the costs in time and money of doing so
- Decide which internal data sources to use
- Arrange for use of these internal data sources

- Output: ● Internal data sources identified
- Internal data used on a regular and systematic basis

Responsibility: ● Chairperson of Planning Group

Personnel: ● Members of Planning Group

- Consultants, if needed

Start-Duration: ● Day 15 and continuous

24

Strategy/Process: ● Not just what will be used by how it will be used will be important  
● A few sources used well may be more important than many sources used haphazardly

Monitoring: ● None

Resources: ● None

**A.7. Utilize external data sources, including policy analysis, environmental scanning, and strategic planning in the program planning process**

Activities:

- Identify areas where external data sources will be needed for carrying out planning
- Determine the timing of these various needs
- Prioritize these areas
- Identify external data sources available
- Identify methods of obtaining or accessing these sources and the costs in time and money of doing so
- Decide which external data sources to use
- Arrange for use of these external data sources

Output: ● External data sources identified  
● External data used on a regular and systematic basis

Responsibility: ● Chairperson of Planning Group

Personnel: ● Members of Planning Group  
● Consultants, if needed

Start-Duration: ● Day 15 and continuous

Strategy/Process: ● Not just what will be used by how it will be used will be important  
● A few sources used well may be more important than many sources used haphazardly

Monitoring: ● None

Resources: ● None

**A.8. Plan scope and sequence chart for all grade levels in all subject matter areas**

Activities:

- Appoint persons responsible for developing scope and sequence in each subject matter area, with chairpersons
- Review scope and sequence outline and sample content now available and other scope and sequence work done by CDC staff
- Determine specifically what each group of persons is to do, by when this is to be done, and who is responsible for insuring that it is done
- Establish a monitoring system by means of which the Center Director receives regular information concerning progress and problems
- Decide on method of displaying results - the full scope and sequence chart
- Determine who should receive this chart, both within and without the MOE
- As curriculum goals change, establish a means for regular and systematic revision and up-dating of the scope and sequence chart

Output:

- A complete plan for the development of a full scope and sequence chart
- Subject matter committees, with chairpersons
- Distribution list
- Mechanism for up-dating

Responsibility: ● Chairperson of Planning Group

Personnel: ● Members of Planning Group      Start-Duration: ● Day 1 to day 30  
● Consultants, if needed

Strategy/Process: ● Appoint energetic and committed persons  
● Give them clear and specific directions

Monitoring: ● None      Resources: ● None

**A.9. Insure vertical and horizontal articulation and balance in objectives and among subject areas, content emphases, instructional strategies, and resource materials**

Activities:

- Review meaning of vertical and horizontal articulation and balance with all staff members, with particular attention to new staff members
- Establish sub-committee, with chairperson, to be in charge of articulation and balance. Insure that representatives of all subject matter areas are included
- Decide on elements which need to be articulated. Objectives, content, methodology, and evaluation must all be on the list.
- Define criteria to be used in insuring vertical and horizontal articulation and balance information concerning progress and problems
- Establish a monitoring system by means of which the Center Director receives regular information concerning progress and problems
- As curriculum goals change, establish a means for regular and systematic revision and up-dating of articulation and balance in the curriculum

Output: ● Vertical and horizontal articulation fully demonstrated on scope and sequence chart  
● Reasonable explanations for any gaps or overlaps on the chart  
● Sub-committee with chairperson  
● Mechanism for up-dating

Responsibility: ● Chairperson of sub-committee

Personnel: ● sub-committee members      Start-Duration: ● Day 100 to day 140

Strategy/Process:

- Orient sub-committee thoroughly to the task
- Appoint efficient and energetic people

Monitoring: ● Weekly written report of progress and problems to the Center Director

Resources: ● None

**A.10. Plan the monitoring of potential application to the Egyptian educational system of innovations and emerging trends in education from other nations**

Activities:

- Establish sub-committee, with chairperson, to communicate with other countries
- Identify other countries which are most likely to have curriculum innovations of most interest and relevance to Egypt
- Establish a budget for this activity
- Establish a means of up-dating the list of institutions and entities participating

Output:

- A list of cooperating foreign institutions
- A record of information received and an analysis of the relevance of this information for curriculum development in Egypt
- Sub-committee, with chairperson
- Mechanism for up-dating
- Budget

Responsibility: ● Chairperson of sub-committee

Personnel: ● Sub-committee members      Start-Duration: ● Day 20 - ongoing

Strategy/Process:

- Make certain that information and materials collected are truly relevant to the Egyptian situation
- Devise a way to review many foreign materials rapidly

Monitoring: ● Weekly written reports to Center Director

Resources: ● Budget

**A.11. Plan the maintenance of communications with similar curriculum development centers throughout the world.**

Activities:

[ IN CONJUNCTION WITH A.10. ]

- Establish mechanism for collecting promising ideas in curriculum design, educational materials and training programs from all parts of the CDC
- Establish regular means of transferring these ideas and materials to institutions and entities identified in A.10.
- Establish a budget for this activity

Output:

- Mechanism for collection
- Mechanism for use
- Budget

Responsibility: ● Chairperson of Planning Group

Personnel: ● Members of Planning Group

Start-Duration: ● Day 30 to Day 50

27

Strategy/Process:

- Establish procedures and written forms which will enable this to happen quickly and efficiently

Monitoring: ● None

Resources: ● Budget

**A.12. Review invitations for assistance and/or cooperation from educational agencies in other countries, particularly throughout the region, and plan the provision of staff development for curriculum design, educational materials development, and/or in-service teacher training**

Activities:

[ IN CONJUNCTION WITH A.10. AND A.11. ]

- Establish a sub-committee, with chairperson, to coordinate planning for overseas training
- Establish mechanism for the solicitation and regular review of invitations for assistance and/or cooperation from educational agencies in other countries
- Coordinate the planning of designs for staff development in the areas of curriculum design, educational materials development and in-service teacher training
- Establish a budget for these activities
- Establish a mechanism for regular and systematic review of policies and procedures in this area

Output:

- Method for reviewing requests and planning assistance
- Sub-committee, with chairperson
- Mechanism for up-dating
- Budget

Responsibility: ● Chairperson of sub-committee

Personnel: ● Members of sub-committee

Start-Duration: ● Day 30 - ongoing

Strategy/Process:

- Limit responses, strive for quality not quantity
- Do not allow this responsibility to take too much time away from other Center tasks

Monitoring: ● Brief weekly written reports to Center Director

Resources: ● None

**B. Design and Development Department**

**(1) Design and Development Unit**

**B.(1).1. Analyze existing curriculum: objectives, content, teaching models, instructional materials, curriculum guides, and supplementary resources.**

Activities:

- Examine existing curriculum descriptions
- Complete any descriptions which are not yet finished
- Decide on criteria for analysis ( i.e. - methods of determining worth )
- Submit criteria to Department Head and Planning Group for input
- Revise criteria in light of this input

- Apply criteria to analysis of curriculum descriptions

Output:

- An analysis of existing curriculum
- Finished curriculum descriptions
- Criteria for analysis

Responsibility: ● Unit Coordinator

Personnel: ● Unit members ● Consultants, if needed

Start-Duration: ● Day 1 to day 30

Strategy/Process: ● Take particular care in specifying criteria and in applying them systematically and uniformly

Monitoring: ● Brief weekly written reports to Department Head

Resources: ● None

**B.(2).2. Prepare scope and sequence chart by program level and grade for each subject area.**

Activities:

- Review planning, procedures and job assignments developed by the Scope and Sequence sub-committee of the Planning Group
- Refine and expand specific task descriptions
- Review interests and skills of personnel available
- Assign personnel to each task
- Accomplish tasks, as assigned
- Monitor progress and problems of task accomplishment
- Record progress and problems for use in later up-dating efforts
- Prepare results for publication, use in the Center, and dissemination

Output:

- A complete scope and sequence chart for all subjects in all grades
- A record of progress and problems

Responsibility: ● Unit coordinator

Personnel: ● Unit staff

● Consultants, as needed

Start-Duration: ● Day 10 - ongoing

Strategy/Process: ● Careful organization and monitoring  
● Careful analysis of need for consultants  
● Institution of a procedure to reward progress

Monitoring: ● Weekly written report of progress and problems to the Center Director

Resources: ● Budget ● Access to materials

**B.(1).3. Recommend curriculum activities to Planning Group.**

**Activities:**

- Establish mechanism to review curriculum information, ideas and materials
- Consider possible curriculum ideas and activities in a systematic way and on a regular basis
- Establish criteria for worth and acceptance
- Formulate recommendations on the basis of this consideration
- Transmit recommendations to the Planning Group

**Output:**

- Recommended list of activities
- Criteria for inclusion

**Responsibility:** ● Unit Coordinator

**Personnel:** ● Unit staff ● Consultants, as needed

**Start-Duration:** ● Day 30 - ongoing

**Strategy/Process:**

- Insure input from Planning Group's monitoring of foreign curriculum ideas
- Encourage creativity and divergent thinking
- Apply criteria regorously
- Make recommendations clear and specific

**Monitoring:** ● Brief weekly written report to Department Head

**Resources:** ● Access to curriculum materials

**B.(1).4. Determine operations and scheduling for design of curriculum materials, instructional stratgies and teacher's guide materials**

**Activities:**

- Identify a variety of procedures which could be used in designing educational materials and strategies
- Develop criteria to be used in designing educational and strategies
- Determine the procedures to be used in designing educational materials and strategies
- Determine the length of time required to implement these procedures under different circumstances
- Take Planning Group's decisions regarding materials and strategies to be developed and develop PERT Chart or time line indicating tasks to be completed by given dates
- Establish a mechanism for reviewing procedures and timelines at reasonable intervals, and adjust as indicated

**Output:**

- Chart describing tasks and plotting them against time
- List of criteria
- Mechanism for up-dating

**Responsibility:** ● Unit Coordinator

Personnel: ● Staff ● Consultants

Start-Duration: ● Day 30 to Day 70, then ongoing

Strategy/Process:

- Appoint personnel who are able to make decisions both on evidence and on speculation

Monitoring: ● Brief weekly written reports to Department Head

Resources: ● None

**B.(1).5. Translate curriculum goals into objectives for specific materials development projects.**

Activities:

- Analyze curriculum goals and objectives statements in scope and sequence chart for implications for specific materials
- List implications and decide which apply to the materials to be developed
- Based on this analysis, form objectives for specific materials to be developed
- Up-date implications list as curriculum goals change

Output:

- List of objectives for specific materials
- List of implications for specific materials
- Mechanism for up-dating

Responsibility: ● Unit chairperson

Personnel: ● Unit members ● Consultants, as needed

Start-Duration: ● Continuous activity, will take approximately one day each time

Strategy/Process: ● Analysis must be careful and complete

Monitoring: ● Brief written report to Department Head after every analysis

Resources: ● None

**B.(1).6. Form appropriate teams charged with responsibility for preparing objectives, content ( knowledge, skills and attitudes ), teaching models, instructional materials, curriculum guides, and supplementary resources.**

Activities:

- Analyze activities to be undertaken for personnel implications
- Analyze interests, abilities, and experience of available personnel
- Analyze time, budget and other requirements and constraints
- Form development teams and appoint team leaders
- Specify tasks and sub-tasks carefully, and attach them to a time frame
- Develop a system for monitoring progress and problems

- Coordinate activities with and get input from Coordinator of Textbook and Resource Materials Preparation Unit

Output:

- Designs and specifications for educational materials
- Development teams and team leaders

Responsibility: ● Department Head and Unit Coordinator

Personnel: ● Unit staff ● Consultants

Start-Duration: ● Continuous activity with time requirements varying according to the magnitude of the project

Strategy/Process:

- Choose flexible and energetic people
- Do analysis tasks carefully and completely
- Match personnel interests and experience to tasks whenever possible
- Help staff grow professionally by giving them new experiences

Monitoring:

- Monitoring is of crucial importance, written weekly reports to the Department Head

Resources:

- varies by project but will always require budget and access to complete curriculum design facilities and materials

(2) Individualized Instructional Materials Unit

**B.(2).1. Prepare specifications and examples of textual presentation, learning activities, instructional strategies, supplementary reading, and resource materials targeted for students who are bright (enrichment), slow learners (remedial), creative or talented, or who possess special learning disabilities (sight impaired, hearing impaired, emotionally disturbed, physically handicapped, or mentally retarded).**

Activities:

- Decide which types of special students will be considered in the "individualization" process
- Define very carefully and very specifically each special condition chosen
- Research and specify the learning characteristics typical of each special condition chosen
- Analyze these learning characteristics for implications for the development of educational materials and teaching strategies
- Develop implications into a set of criteria
- Determine method of applying criteria to educational materials and strategies
- Develop criteria for determining when and how often "individualization" should take place (i.e. - not all activities can or should be "individualized" )

Output:

- Definitions of each special condition
- Specifications of learning characteristics of each special condition

32

- Criteria for "individualizing" materials and strategies
- Determination of when and how often "individualization" should take place

Responsibility: ● Unit coordinator      Personnel: ● Unit members      ● Consultants

Start-Duration: ● Day 100 - day 160

Strategy/Process:

- Do not choose too many special conditions
- Make definitions clear and complete
- Analysis must be thorough, but realistic in terms of Egyptian curriculum development capabilities
- Make criteria operational rather than theoretical

Monitoring: ● Weekly written reports to Department Head

Resources: ● Budget      ● Access to library materials

**B.(2).2. Monitor work of writing teams and/or individual authors and apply criteria to all educational materials prepared under the aegis of the Curriculum Development Center.**

Activities:

- Review criteria and method of applying criteria developed in previous function
- Inform development teams of criteria and discuss the criteria before they begin their work
- Apply criteria to all educational materials and teaching strategies developed at the Center

Output:

- All materials and strategies developed at the Center checked for appropriate "individualization"

Responsibility: ● Unit coordinator      Personnel: ● Unit staff

Start-Duration: ● Continuous, each review should take less than one day in the case of an individual material and less than two weeks in the case of materials for one subject for a whole year

Strategy/Process:

- Apply criteria fairly and consistently
- Suggest alternatives and options when criteria are not complete met

Monitoring: ● Brief weekly written reports to Department Head

Resources: ● None

**C. Preparation and Quality Control Department**

**(1) Textbook and Resource Materials Preparation Unit**

**C.(1).1. Select appropriate subject writing teams and/or individual authors to prepare textbooks and/or resource materials and teacher's guides according to curriculum specifications established by the design teams and approved by the Individualized Instructional Materials Unit.**

**Activities:**

- Review curriculum specifications generated in the previous function
- Determine personnel available and their production skills and experience
- Assess the interest of these personnel in various parts of the production process as relates to the task at hand
- Assign personnel to tasks, appoint team leaders
- Review budget

**Output:**

- Production team and team leaders

**Responsibility:** ● Department Head and Unit Coordinator

**Personnel:** ● Unit staff

**Start-Duration:** ● Continuous, the process should not take more than three days

**Strategy/Process:**

- Choose flexible and energetic people
- Match personnel interests and experience to tasks whenever possible
- Help people grow professionally by giving them new experiences

**Monitoring:** ● Brief written report whenever a production team is formed

**Resources:** ● None

**C.(1).2. Prepare and monitor the preparation of textbooks and/or educational materials according to appropriate schedules.**

**Activities:**

- Carefully review specifications and designs of material to be produced, consulting with the Design and Development Department, as needed
- Analyze the production tasks to be accomplished into sub-tasks
- Assign personnel to sub-tasks, appoint team leaders
- Arrange tasks and sub-tasks in logical order and establish time frame for tasks and sub-tasks
- Carry out prototype production of all materials.
- Develop a regular and systematic method for monitoring progress and problems
- Execute monitoring system

34

**Output:**

- Prototype materials produced
- Production team and team leaders
- Monitoring system

**Responsibility:** ● Department Head and Unit Coordinator

**Personnel:** ● Unit staff ● Consultants, as needed

**Start-Duration:** ● Continuous, production time will vary according to complexity of task

**Strategy/Process:**

- Choose flexible and energetic people
- Do analysis tasks carefully and completely
- Match personnel interests and experience to tasks whenever possible
- Help staff grow professionally by giving them new experiences

**Monitoring:** ● Weekly written report to Department Head

**Resources:** ● Budget ● Access to production materials

**C.(1).3. Coordinate the preparation or selection and the use of the following items in textbooks, educational materials, and teacher's guides:**

- a) art work, illustrations, and photographs**
- b) charts, graphs, and maps**
- c) films, audio and video tapes, film strips and A-Y materials**
- d) radio broadcast scripts and guides**
- e) computer software**

**Activities:**

- Develop criteria for including the number and type of these items in different kinds of educational materials
- According to these criteria, analyze educational materials under production with regard to need for one or more of these items
- Decide on characteristics of items to be used, insuring variety and balance
- Determine commercial availability, cost and time for delivery of these items
- Determine feasibility, cost, and time frame of Center production of the same items
- Buy or produce needed items based on best method of obtaining them
- Integrate items into educational materials

**Output:**

- Non-written items purchased or produced and integrated with text items
- Criteria for including non-text items

**Responsibility:** ● Unit Coordinator      **Personnel:** ● Unit staff

**Start-Duration:** ● Varies according to need

**Strategy/Process:**

- Insure that criteria are clear, specific and complete

- Search long enough for commercial availability to insure adequate information but not so long that production is delayed
- Insure variety, balance, and relevance

Monitoring:

- Weekly written report to Department Head

Resources:

- Budget
- Access to extensive files and collections of these items
- Access to complete production facilities for these items

(2) Quality Control Unit

**C.(2).1. Define criteria for quality control standards to insure adequacy of textbooks and educational materials.**

Activities:

- Analyze Egyptian situation for characteristics affecting quality control
- Examine lists of quality control criteria developed elsewhere
- Analyze Center's capabilities and capacities to control quality during and after design and prototype production
- Brainstorm additional criteria
- Refine lists into a single list relevant to and realistic for Egypt
- Submit to Planning Group for input
- Revise in light of input received from Planning Group
- Establish method for regular and systematic up-dating of criteria as curriculum needs and Center capabilities change

Output:

- Characteristics of quality all educational materials produced by the Center must have
- Lists of quality control criteria used elsewhere
- Mechanism for up-dating

Responsibility: ● Unit Coordinator      Personnel: ● Unit staff

Start-Duration: ● Day 40 to day 100, then continuous with each project

Strategy/Process:

- Insure the eventual list is realistic in terms of Egypt's needs and the Center's capabilities
- State criteria clearly, specifically, and completely

Monitoring: ● Weekly written report to Department Head

Resources: ● Access to library resources

**C.(2).2. Review content, format, layout, size, extent, and other characteristics of textbooks and resource materials in view of curriculum specifications and contractual agreements and apply criteria to textbooks and resource materials.**

Activities:

- Carefully review criteria developed in the previous function
- Carefully review all curriculum specifications and contractual agreements
- Analyze tasks and assign tasks to staff, as needed
- Apply quality control criteria to educational materials
- Suggest options or alternatives for meeting criteria when a material is deficient
- Record results of application of criteria

Output:

- All Center products controlled for quality

Responsibility: ● Unit Coordinator

Personnel: ● Unit staff ● Consultants, as needed

Start-Duration:

- Variable depending on complexity of material. Single activities should take less than a day, materials in one subject matter area for one grade level should take less than two weeks.

Strategy/Process: ● Take care in applying criteria completely and fairly

Monitoring: ● Weekly written report to Department Head

Resources: ● None

**C.(2).3. Analyze data generated during the field testing period as bases of approval, modification or rejection of textbooks and resource materials.**

Activities:

- Coordinate with Data Collection and Analysis Unit on data to be collected and on timing of data collection
- Establish procedures for use of data once it is available
- Organize data into most useful form
- Conduct analysis of data
- Integrate results of analysis into activities of previous functions

Output:

- Judgement of educational materials based on systematic analysis of field test data

Responsibility: ● Unit Coordinator

Personnel: ● Unit staff ● Consultants, if needed

Start-Duration:

- Ongoing. Time required will depend on amount and complexity of data collected

Strategy/Process:

- Conduct analysis systematically and fairly
- Make sure data is used once it is collected

Monitoring: • Weekly written report to Department Head  
Resources: • None

**C.(2).4. Recommend approval of textbooks and resource materials to the Director of the Curriculum Development Center.**

Activities:

- Review results of data analysis
- Review all information generated in function C.(2).2. above
- Based on review, write brief report which expresses judgement reached and reasons for this judgement
- Transmit report to Department Head

Output:

- Judgement of educational materials and reasons for judgement transmitted to proper authorities

Responsibility: • Unit Coordinator      Personnel: • Unit staff

Start-Duration: • Ongoing. Procedure should always take less than one day

Strategy/Process: • Make report clear, specific, brief and to the point

Monitoring: • Weekly written report to Department Head

Resources: • None

**D. Evaluation and Field Testing Department**

**(1) Design and Development Unit**

- 1. Create appropriate data collection designs.**
- 2. Specify sampling plans, as needed.**
- 3. Design appropriate instrumentation.**
- 4. Establish procedures for monitoring curriculum implementation.**
- 5. Develop methods to evaluate instructional materials.**
- 6. Develop instrument collections and item banks.**
- 7. Design in-service training program evaluation studies.**

(2) Data Collection and Analysis Unit

1. Establish procedures for data collection, recording and transmission.
2. Conduct appropriate statistical analyses.
3. Conduct cost-effectiveness and cost benefit analyses.
4. Prepare summary reports for curriculum decision makers and planners.
5. Interface with other Ministry of Education data collection sources.
6. Conduct instrument development analyses.

E. Staff Development and Field Training Department

(1) Materials and Protocols Development Unit

**E.(1).1. Develop materials and instructional strategies for staff development of teachers, supervisors, administrators, and monitors, local and foreign.**

Activities:

- Analyze training needs for number and type of staff to be trained
- Organize these needs into logical and realistic units
- In cooperation with Institutes and Workshops Unit, develop training plan, including specific objectives, to meet these needs
- Analyze the development and production tasks to be accomplished into sub-tasks
- Assess interests and abilities of available staff
- Assign staff to sub-tasks
- Establish time frame for tasks and sub-tasks
- Develop appropriate instructional methodologies
- Determine the type and amount of educational materials needed to carry out training plan and to support instructional methodologies
- Determine commercial availability of needed materials, including costs and delivery time
- Determine Center capabilities for producing needed materials, including costs and delivery time
- Decide on how materials will be provided
- Provide materials
- Package materials and instructional methodologies
- Develop and employ a system for monitoring progress and problems
- In cooperation with Evaluation and Field Testing Department, develop a mechanism for up-dating training needs

Output:

- Complete in-service training package for each type of educator to be trained
- Training plan
- Monitoring system
- Mechanism for up-dating

Responsibility: ● Department Head and Unit Coordinator

Personnel: ● Unit staff ● Consultants

Start-Duration: ● Day 100 to day 220, and on going

Strategy/Process:

- Choose flexible and energetic people
- Do analysis tasks carefully and completely
- Match personnel interests and experience to tasks whenever possible
- Help staff grow professionally by giving them new experiences
- Assure variety and balance in materials

Monitoring: ● Weekly written report to Department Head

Resources:

- Budget
- Access to complete design and production facilities
- Access to library materials

#### **E.(1).2. Explain training materials and protocols.**

Activities:

- Identify trainers
- In cooperation with Communications Unit, identify others who need to understand or use training package
- Develop means of providing needed explanations
- Explain training package
- Develop means, in cooperation with Evaluation and Field Testing Department, to ascertain effectiveness of explanations

Output:

- Trainees and other who understand training package

Responsibility: ● Unit Head                      Personnel: ● Unit staff

Start-Duration: ● Day 200 to day 240

Strategy/Process:

- Insure explanations are clear and complete
- Insure trainers understand the objectives of the training package

Monitoring: ● Weekly written report to Department Head

Resources: ● None

(2) Institutes and Workshops Unit

**E.(2).1. Provide in-service education for teachers, supervisors, administrators, and monitors, local and foreign, who are or will become trainers.**

Activities:

- Review and refine training plan
- Review all training materials
- Plan logistics of training ( costs, location, length and dates, food and lodging, special services, etc. )
- Conduct training
- In cooperation with Evaluation and Field Testing Department, develop a mechanism for evaluating training

Output:

- Fully trained trainers
- Training evaluation mechanism

Responsibility: ● Unit Coordinator      Personnel: ● Unit staff      ● Consultants

Start-Duration:

- Day 200 to day 230, then ongoing. Each cycle of training will take approximately a month for planning/delivery

Strategy/Process:

- Insure the people delivering this training are well trained and knowledgeable themselves
- Insure that training is direct, specific, and practical

Monitoring: ● Weekly written report to Department Head      Resources: ● Budget

**E.(2).2. Train individuals who will monitor the field testing phase.**

Activities:

- Analyze monitoring needs
- In cooperation with Evaluation and Field Testing Department, create monitoring plan
- Create training plan
- Review materials produced by the Materials and Protocols Development Unit
- Select trainees
- Arrange for logistics of training
- Conduct training
- In cooperation with Evaluation and Field Testing Department, design mechanism for evaluating training

Output:

- Trained monitors
- Monitoring plan
- Evaluation plan

Responsibility: ● Unit Coordinator

Personnel: ● Unit staff      ● Consultants, if needed

11'

Start-Duration: • Day 80 to day 140, then ongoing

Strategy/Process:

- Choose flexible and energetic people
- Do analysis tasks carefully and completely
- Match personnel interests and experience to tasks whenever possible
- Help staff grow professionally by giving them new experiences

Monitoring:

- Brief weekly written report to Department Head
- Report after each training session

Resources: • Budget

(3) School Relationships Unit

**E.(3).1. Select schools for field testing of materials and instructional strategies.**

Activities:

- Determine site needs for field testing ( number, type, location, characteristics of students/teachers, etc. )
- Survey schools available for field testing
- Review materials and strategies to be tested
- Review field test plan
- Develop criteria for school choice
- Choose schools

Output:

- Schools for field test chosen
- Criteria for choice specified

Responsibility: • Unit Head

Personnel: • Unit staff

Start-Duration:

- Ongoing, beginning approximately day 180. Process should take approximately 15 days

Strategy/Process: • Criteria for choice must be carefully determined and adhered to

Monitoring: • Weekly written report to Department Head

Resources: • None

**E.(3).2. Monitor field testing of materials and instructional strategies.**

Activities:

- Specify monitoring needs
- Develop monitoring plan with tasks and sub-tasks
- Assign personnel to tasks and sub-tasks
- Conduct monitoring

42

- Prepare monitoring report

Output:

- Monitoring report
- Monitoring plan

Responsibility: ● Unit Coordinator

Personnel: ● Unit staff ● Consultants, if needed

Start-Duration:

- Will depend on monitoring plan and will be dependent on field test schedule

Strategy/Process:

- Monitoring needs must be carefully specified in order to insure efficiency
- Report should be brief but specific

Monitoring:

- Weekly written report to Department Head
- Brief written report at the end of each field test

Resources: ● Budget

F. Dissemination and Follow-Up Department

(1) Production Liaison Unit

**F.(1).1. Relate preparation of textbooks and resource materials to production system of the Ministry of Education.**

Activities:

- Determine the exact roles and responsibilities of the Unit and of the MOE production system
- Become thoroughly familiar with MOE production system
- Become thoroughly familiar with the specifications and requirements of each curriculum and training material
- Develop forms, formats and other methods of communicating these specifications and requirements to the MOE production system
- Develop system for monitoring MOE production
- Using this system, monitor production
- Develop system for reporting inadequacies in MOE production to proper authorities
- Employ this reporting system

Output:

- Center products produced to Center specifications by MOE
- Monitoring system
- Reporting system

Responsibility: ● Unit Coordinator Personnel: ● Unit staff

Start-Duration: ● Day 100 to day 140, and ongoing

13'

Strategy/Process:

- Specifications and requirements must be very clearly and completely stated
- Create collegial, cooperative relationship between Unit and MOE production personnel
- Monitoring should not be obtrusive or interfering
- State any inadequacies clearly and specifically

Monitoring:

- Weekly written report to Department Head
- Brief written report at the end of each project MOE production system completes

Resources: ● None

**F.(1).2. Provide textbooks and resource materials ready for reproduction.**

Activities:

- Determine exact form which MOE production system requires materials to have
- Determine capabilities of Center to provide materials in this form
- Negotiate any differences
- Coordinate with Preparation Unit on all matters
- Insure all materials are in proper form, as negotiated
- Deliver materials

Output:

- Materials delivered in proper form

Responsibility: ● Unit Coordinator

Personnel: ● Unit staff

Start-Duration: ● Day 100 - ongoing

Strategy/Process:

- Insure that all agreements are clear and specific
- Insure that all agreements are followed

Monitoring:

- Brief weekly written report
- Brief written report after each set of materials are delivered

Resources: ● None

**F.(1).3. Relate preparation of textbooks and resource materials to distribution system of the Ministry of Education.**

Activities:

- Become thoroughly familiar with MOE distribution system
- In cooperation with this system, determine distribution lists of all Center materials
- Develop system for monitoring distribution and reporting on inadequacies to proper authorities
- Employ this monitoring and reporting system

Output:

- Proper distribution of Center materials

44-

Responsibility: • Unit Coordinator

Personnel: • Unit staff

Start-Duration: • Day 120 - ongoing

Strategy/Process:

- Create collegial, cooperative relationship between Unit and MOE distribution personnel
- Monitoring should not be obtrusive or interfering
- State any inadequacies clearly and specifically

Monitoring: • Weekly written report to Department Head

Resources: • None

## (2) Communications Unit

**F.(2).1. Orient faculty at university departments of education regarding new and revised textbooks and educational materials to assist incorporation of current curriculum into pre-service programs of teacher preparation and other appropriate areas of instruction.**

Activities:

- In cooperation with university Departments of Education, analyze courses and other activities of these departments which are related to curriculum and instruction
- Establish mechanisms for providing Department of Education with relevant information, procedures and materials developed at the Center
- Use these mechanisms to provide the departments with such information, procedures and materials
- Create and employ a mechanism to monitor their use of such information, procedures and materials and the integration of these items into their programs

Output:

- System to provide information, procedures and materials to university Departments of Education
- System to monitor the departments' use of these items

Responsibility: • Unit Coordinator

Personnel: • Unit staff

Start-Duration: • Day 100 - ongoing

Strategy/Process:

- Strive for a collegial, mutually supportive relationship with university personnel
- Over-provide information, procedures and materials rather than under-provide them

Monitoring: • Weekly written reports to Department Head

Resources: • None

**F.(2).2. Relate preparation of textbooks and educational materials to in-service programs of teacher preparation conducted by the Ministry of Education.**

45

**Activities:**

- In cooperation with the MOE's in-service programs of teacher preparation, analyze activities of these programs which are related to curriculum and instruction
- Establish mechanisms to provide these programs with relevant information, procedures and materials developed at the Center
- Use these mechanisms to provide the relevant MOE personnel with such information, procedures and materials
- Create and employ a mechanism to monitor its use of such information, procedures and materials and the integration of these items into their programs

**Output:**

- System to provide information, procedures and materials to MOE in-service programs of teacher preparation
- System to monitor the programs' use of these items

**Responsibility:** ● Unit Coordinator

**Personnel:** ● Unit staff

**Start-Duration:** ● Day 100 - ongoing

**Strategy/Process:**

- Strive for a collegial, mutually supportive relationship with MOE personnel
- Over-provide information, procedures and materials rather than under-provide them

**Monitoring:** ● Weekly written reports to Department Head

**Resources:** ● None

**F.(2).3. Relate preparation of textbooks and educational materials to monitoring systems of the Ministry of Education.**

**Activities:**

- In cooperation with the MOE's monitoring system, analyze activities of this system which are related to curriculum and instruction
- Establish mechanisms to provide this system with relevant information, procedures and materials developed at the Center
- Use these mechanisms to provide the relevant MOE personnel with such information, procedures and materials
- Create and employ a mechanism to monitor its use of such information, procedures and materials and the integration of these items into their programs

**Output:**

- System to provide information, procedures and materials to MOE monitoring system
- System to monitor the system's use of these items

**Responsibility:** ● Unit Coordinator

**Personnel:** ● Unit staff

**Start-Duration:** ● Day 100 - ongoing

**Strategy/Process:**

- Strive for a collegial, mutually supportive relationship with MOE personnel
- Over-provide information, procedures and materials rather than under-provide them

Monitoring: ● Weekly written reports to Department Head

Resources: ● None

**F.(2).4. Relate preparation of textbooks and educational materials to school visitation and classroom observations.**

Activities:

- Establish clearly the purposes of school visitations ( general and specific )
- Develop a program ( general and specific ) of school visitations which will achieve these purposes
- Determine logistics of visitations ( schools to be visited, number of visits, lengths of stay, etc. )
- Determine which Center products will be the focus of each visit
- Conduct visits
- Develop a reporting mechanism to disseminate results of visits inside the Center

Output:

- A program of school visitations to help monitor the use and effectiveness of Center products
- Reporting mechanism

Responsibility: ● Unit Coordinator

Personnel: ● Unit staff

Start-Duration: ● Day 160 - ongoing

Strategy/Process:

- Be as unobtrusive as possible during visits
- Make visits brief and practical, not ceremonial
- Maintain collegial relationships with teachers and administrators at the schools

Monitoring: ● Weekly written reports to Department Head

Resources: ● Travel budget

**F.(2).5. Solicit information and ideas regarding educational needs and curriculum development from the Ministry of Education; from other organizations, agencies, and institutions; from the schools; and from the general public, as appropriate.**

Activities:

- Determine criteria for making a list of all organizations, groups and individuals from whom information and ideas will be solicited
- Create list
- Determine what types of information and ideas will be most useful for various Center purposes
- Determine mechanisms for collecting information and ideas from these organizations, groups and individuals
- Collect information and ideas
- Determine how information and ideas collected will be disseminated and used
- Insure dissemination and use
- Develop mechanism for up-dating lists of organizations, groups and individuals from whom information and ideas are collected

Output:

- Appropriate information and ideas collected and used
- Mechanisms for up-dating

Responsibility: • Department Head and Unit Coordinator

Personnel: • Unit staff                      • Consultants, as needed

Start-Duration: • Day 60 - ongoing

Strategy/Process:

- Be realistic, do not get so inundated in information and ideas that they cannot be properly processed and used
- Do not underestimate feedback from teachers and schools, it may be very helpful

Monitoring: • Weekly written reports to Department Head

Resources: • Budget

**F.(2).6. Maintain liaison with curriculum development centers and similar institutions in selected foreign countries, exchange information and materials with them, and arrange training, as feasible.**

Activities:

- Refine lists of institutions generated in A.10.
- Review plans generated in A.10., A.11., and A.12.
- Contact the MOE ( or equivalent body ), the leading universities ( or a sample thereof ), and private curriculum development groups in these countries to ascertain their interest in communicating on curriculum issues and instituting an exchange of materials and other resources
- Select an appropriate number of institutions or entities for this exchange
- Institute a regular means of communication with the institutions and entities chosen
- In cooperation with the Staff Development and Field Training Department, arrange training for foreign educators, as needed
- Establish a means of informing relevant parts of the CDC about promising innovations and trends as they appear
- Establish record keeping system to maintain easy access by the CDC staff to communications and materials received by the Center

Output:

- System of continuous liaison with selected foreign institutions working in curriculum development and educational personnel training
- Record keeping system
- System for CDC staff access to information acquired
- Mechanism for up-dating

Responsibility: • Unit Coordinator                      Personnel: • Unit staff

Start-Duration: • Day 40 - ongoing

Strategy/Process:

- Speed, efficiency, and relevance of materials and ideas collected will all be important
- Do not allow this activity to dominate more immediate national concerns

Monitoring: ● Weekly written reports to Department Head

Resources: ● Budget ● Storage facilities

## WORK PLAN II

### A NATIONAL CURRICULUM ASSESSMENT PROJECT

#### Introduction

The evaluation of a newly revised and installed curriculum is a very complex and costly undertaking, and should not be entered into lightly. The commitment of considerable amounts of time, effort, and resources is needed if information useful to a variety of decision-makers is to be collected.

The primary assumption is that curriculum implementation will probably take place over a four year span as follows:

	<u>Year One</u>	<u>Year Two</u>	<u>Year Three</u>	<u>Year Four</u>
Grades	1-3	4-5	6-8	9-11

Ideally, assessment would follow a similar pattern. The mounting of a National Curriculum Assessment Project (NCAP) will require extensive instrument development. It would therefore be efficient to look at all testing and examination programs already in existence or projected to be in place in light of NCAP. The desirability of reducing redundancy and perhaps centralizing functions is obvious.

#### General Procedural Considerations

It is probably not necessary to assess all objectives in each subject area. Major goals could be identified by an Advisory Committee to help establish priorities. Concern is with a kind of quick-print snapshot to help identify any major problem that have arisen during initial implementation. Fine-tuning of the curriculum can await future assessments. Quality control is a primary intent of the NCAP.

It should be remembered that the process is continuous. While one assessment is in progress during a given year, another is in preparation for the next year. This will put a heavy burden on the Evaluation Department, but will also allow other units in the Center and staff in the center to help carry that burden.

#### Consideration of Assessment Objectives

The intent of NCAP is to provide data useful in monitoring curriculum implementation. Since summative evaluation in the form of advancement exams is already taking place at the end of grades 5, 8, and 11, some adjustment in the assessment cycles projected to include these years may be in order. The amount of assessment time (e.g. number of tasks) given to particular subject areas should be determined by the thoughtful and systematic deliberation of an Assessment Advisory Committee to be appointed by the CDC Director and the Director General of the National Center for Educational Research and Development. Apportionment of "weights" across subjects should be one of their first priorities. Some sort of matrix of grades by subject could be created, with weights in the cells. The row totals should equal 100%. Following is a brief example:

		<u>SUBJECT</u>				
		ARABIC	NATURAL SCIENCE	SOCIAL STUDIES	MATHEMATICS	TOTAL
	ONE	30	40	15	15	100
<u>GRADE</u>	TWO	25	50	5	20	100
	THREE	20	50	10	20	100

The actual weights would be a function of (a) number of objectives at each grade level, (b) amount of class time given to each subject, and (c) judged importance by the Assessment Advisory Committee. The weights suggest differing proportion of items in the final assessment task package.

The Assessment Advisory Committee should be made up of a broad spectrum of educators. Their input is very important. The committee might include subject-matter experts, institutional specialists, testing experts, and perhaps even leaders from business and industries. A variety of objectives should be addressed, not just cognitive. Affective and psychomotor outcomes are also very important to a growing nation.

#### Technical Considerations

Instrument Development will be a major component of the NCAP. This will involve training assessment task developers. This activity could perhaps interface with the U.K. Examinations Division Project. Attention to test administration and security are important, but perhaps not so much as for the certification exams at grades 5, 8 and 11. A project of this magnitude obviously suggests the use of item banks. In addition, the use of the term "assessment task" is used advisedly.

There is no intent to suggest that all assessment can be accomplished with paper and pencil technology. Quite the contrary a variety of approaches must be used, e.g. problem solving, performance, self-administered, teacher administered, structured, unstructured, etc. The idea of a "bank" still holds due to the volume of assessment tasks to be developed which are to be used on a cyclical basis.

Another methodological point to be made is that an item-examinee or matrix sampling plan should be used. The concept of not requiring all students to respond to all items is central to broad curriculum content coverage for assessment purposes. The basic idea of item-examinee sampling is to (a) specify the assessment objectives, (b) create assessment tasks for each objective according to a table of specification, and (c) randomly assign sub-sets of items to either groups of students or classes.

It is anticipated that it will take a year to complete all preparation necessary to complete cycle one of the NCAP. This could take place during 1989-1990. After instrumentation has been created and procedures specified, data collection could proceed in either of two directions. If resources permit, it would be very informative to do both a Fall-1990 and a Spring-1991 assessment to look at gain over the school year. If resources do not permit, a Spring-1991 assessment alone should be sufficient. To be realistic however, it will probably require a minimum of two years for each curriculum implementation and assessment cycle.

Another problem to be faced by the assessment staff will be one related to reporting resulting data. There will also be the associated problem of scaling data and developing anchor scales so that data have comparable meaning from a cycle to cycle. The use of some Rasch model might be appropriate.

From an administrative standpoint there are several important considerations. The complexity of the proposed assessment project requires a full-time department head for the Evaluation Department. This person should be technically competent and experienced, but perhaps, as important, should possess strong management and organizational skills. It would probably also be a good idea for the Evaluation Department Head to have an administrative assistant. The two units under the Evaluation Department (Design and Instrumentation of Evaluation Studies, and Data Collection and

Analysis) also require full-time directors who are competent in measurement, evaluation, research methods, statistical procedures, and computers, as well as being well organized and energetic. These two persons could be young professionals in the process of building their careers.

Following is a projected time-line for NCAP activities. Each may take a longer or shorter period of time depending on the availability of resources. If a two-year cycle is required, simply multiply the time estimates by two.

54

PROJECTED TIME-LINES FOR NATIONAL CURRICULUM ASSESSMENT PROJECT

	Months 1989-1990											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Appoint Assessment Advisory Committee	----											
2. Identify Assessment Priorities (by Grade & Subject)	-----											
3. Design Data Collection Plan	-----											
4. Develop Assessment Task Specifications	-----											
5. Select Task or Hire Developers	----											
6. Review of Tasks by Content Experts		-----										
7. Review of Tasks for Biases (e.g. gender, cultural)		-----										
8. Prepare Scoring Directions	----											
9. Prepare Recording Technology		----										
10. Write Administrative Directions	----											
11. Train Assessment Task Administrator		----										
12. Establish Scaling Procedure		-----										
13. Field Test Instrumentations					-----							
14. Complete Item Analysis										-----		
15. Revise Instruments, Direction, etc.										-----		
16. Bank Assessment Tasks										-----		
17. Assemble Forms as necessary											-----	

## Schedule of Lectures and Workshops

Display of books and documents related to computers and education in computer room.	Thursday 30/3
10 - 12 Dr. Pancella: Developing a Scope & Sequence chart. 12:30-1:30 Dr. Nick: Vertical & horizontal articulation. What these terms mean. 1:30 - 2:30 Dr. Pancella: Sample curriculum activities.	Sunday 2/4
Group activities on: (1) Scope & sequence (2) Sample activities	Monday 3/4
10 - 2 Dr. Beverly: Computer tools for developing curriculum	Tuesday 4/4

56

<p>All day Dr. Beverly: Teach yourself to use the Macintosh Computer (Four persons each hour, in computer room. Please see Hekmot for signup.)</p> <p>10-12 Dr. Carol: Affective Education</p> <p>12:30 - 1:30 Dr. Nick: Learning Styles</p>	<p>Wednesday 5/4</p>
<p>Dr. Beverly: Computers in Education Resource Materials Display</p>	<p>Thursday 6/4</p>
<p>10 - 12 Dr. Carol: Communication</p> <p>12:30-2:30 Dr. Beverly: Computer tools for children</p>	<p>Sunday 9/4</p>
<p>Group work on Sample Activities</p>	<p>Monday 10/4</p>
<p>10-12 Dr. Carol: Curriculum development theory and practice</p> <p>12:30 - 2:30 Dr. Beverly: Computer tools for developing scope and sequence</p>	<p>Tuesday 11/4</p>
<p>Group work: developing curriculum in theory and in practice</p>	<p>Wednesday 12/4</p>

51

10 - 12 Dr. Carol: Creativity and higher level thinking	Thursday 13/4
12 - 2 Dr. Nick: Activities for gifted	
All day. Dr. Pancella: Higher level thinking skills for curriculum development.	Sunday 16/4

38

## WORKSHOPS - SECOND SERIES

### Tuesday, April 18

- 1) 12:30 p.m. - 2:30 p.m.  
Evaluation  
Dr. David Payne

### Wednesday, April 19

- 1) 10:00 a.m. - 12:00 m.  
Higher Level Thinking Skills for curriculum development  
Dr. John Panceila
- 2) 12:30 p.m. - 2:30 p.m.  
Sample Activities, What is their purpose and how are they created?  
Dr. John Panceila

### Thursday, April 20

- 1) 10:00 A.M. - 12:00 m.  
Scope and Sequence  
Dr. Gerald Firth
- 2) 12:30 p.m. - 2:30 p.m.  
Evaluation  
Dr. David Payne

## CDC PRIORITIES

The most important priority, both long-term and short-term, is the development of the complete curriculum scope and sequence chart. No truly systematic curriculum development and materials production is possible until this chart is created and agreed upon. Even under the best of conditions, the creation of a truly good scope and sequence chart is a difficult, complex, and time consuming task. The creation of this chart is currently the CDC's most important task and greatest challenge.

### Short-Term Priorities

- Start with grade 1 in all subjects, and advance year by year through grade 11.
- Pay special attention to the new grades 4 and 5 ( the old grades 4, 5, and 6 ). They may have to be developed even before grades 1 through 3 are finished.
- Do not concentrate on the Kindergarten level for the moment. It is an important grade, but there are not enough kindergartens now to warrant this as a priority. When it is time to develop the curriculum for the kindergarten year, make sure an experienced early childhood specialist is available as a consultant.
- When a priority must be give to certain subject matter areas for development, choose the major areas ( i.e. - Arabic, Math, Science, Social Studies, and Foreign Languages ).
- The only exception to the previous priority statement would be technical education. This should be developed early and placed in the daily schedule according to the present plans.
- Continue to work on the integration of subjects - especially the various natural science subjects and the various social science subjects. It makes no sense to attempt to teach these as separate subjects before the ninth grade ( senior secondary ) level. Entrenched university interests will have to be convinced of this.
- Focus early on good models of non-textbook materials. Experience must be built up in this area where so few adequate models exist.
- Assign staff to their functional units as soon as they:
  - a) fully understand the structure and functions of the Center
  - b) have had the opportunity to express their opinions concerning where they best fit into this structure.
- Form the Planning Group early and insure that it becomes active early. It will be both the "engine room" and the "monitor" of Center activities.

### Long-Term Priorities

- The development of Sample Activities ( "quick fixes" ) will continue to be a need. However, because the necessity of a Scope and Sequence Chart is so pressing, too much time and energy cannot be diverted to Sample Activities. Perhaps a small task force could be set up to deal with this area while the majority of staff work on the Scope and Sequence Chart.

- Although the emphasis of the Center is on curriculum development, it must not forget the importance of working with the Counselors and Supervisors and training the trainers. Otherwise, much of the power of the Center to influence Egyptian education will be lost.
- The creation of a system by which new curriculum ideas are systematically reviewed and assessed is very desirable. This will prevent "ad hoc" decisions about what to emphasize or produce.
- While the regional or international role of the Center is potentially important, it cannot receive high priority during the next year or two.

DESCRIPTION OF PRESENT CURRICULUM MATERIALS

Type of material  
Title, name, or description  
Author(s)  
Number of pages  
Content  
    main topics  
    key concepts  
    skills  
    attitudes / feelings  
    higher level thinking skills  
Nature of activities for students  
Teacher Guide materials, or implied methodology  
Graphics  
    pictures  
    charts  
    graphs  
    maps  
    drawings  
    other  
Objectives stated  
Attractiveness  
    type size  
    type face  
    margins  
    color  
    other  
Reading level  
Concept level  
Interest level  
    variety  
    prose style

67