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Evaluation Plan

A Report to the Children's Television Workshop on the Arabic Reading Series Project

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PREFACE

The Arabic Reading Series, an original Arabic language television reading series for elementary school age children, consisting of 65 half-hour programs for broadcast in Jordan and other Arab countries, will be designed to supplement the formal school reading curriculum. The programs are intended for both home and in-school viewing.

Children's Television Workshop (CTW) will jointly produce the series with the Jordan Company for Radio, Television, and Cinema Production (JCTV), an independent production company located in Amman, Jordan. The series will be developed by an Arab production and research staff. The studio segments will be videotaped at Jordanian Television's facilities. The multinational character of the programs will be ensured by the incorporation of live-action films, animation, and performers from various Arab countries. The series will be available for broadcast in early 1987.

The series will be based on a detailed statement of goals and objectives drawn up by Arab educators in consultation with reading experts, linguists, broadcasters, and educational officials from around the Arab world.

The series will be produced in a variety format, a television "magazine," using a combination of live-action film, animation, and studio segments. Music and humor will be used to help motivate learning.

This comprehensive report includes the Summative Evaluation Plan, Overall Budget, Progress Report on work done thus far, and several appendices in accordance with the original CTW/ETS contract. Each section of the report was prepared and paginated separately.

The appendices include the draft of the Goals and Objectives Statement (Appendix 1) and the Statement on Cultural Context (Appendix 2) as they were presented at the meeting in Amman, Jordan in July 1985. At the meetings in New York City and Amman, ETS distributed copies of tests and questionnaires used in the ETS evaluation of the Electric Company (Appendix 3). Samples of educational statistical data and elementary school test materials gathered during ETS visits to the Ministry of Education, the University of Jordan, and Yarmouk University are given in Appendices 4 and 5.

ETS indicates in this report that a summative evaluation of the Arabic Reading Series Project in Jordan and one or more other Arab countries is feasible.

Table of Contents

SECTION I. SUMMATIVE EVALUATION PLAN

Purpose of the Summative Evaluation..... 1
Dependent and Independent Variables..... 5
Design of the Evaluation..... 7
Projected Sample..... 17
Instrument Design and Development..... 19
Data Collection and Analysis..... 20
Schedule and Personnel..... 21

SECTION II. OVERALL BUDGET

Overview..... 1
Proposed Budget..... 3
Notes..... 4

SECTION III. PROGRESS REPORT

Introduction..... 1
Schedule of Meetings..... 2
Names of Persons in the Arabic Reading Series Project..... 3
New York City Workshop (June 24 - July 4)..... 5
Amman Workshop (July 20 - 22)..... 15
Researchers' Meeting (July 23 - 24)..... 31
Meeting at the Ministry of Education (July 25)..... 35
Meeting at Yarmouk University (July 27)..... 36
Meeting at the University of Jordan (July 28)..... 37

SECTION IV. APPENDICES

Goals and Objectives Statement (July 1985)
Cultural Context Statement (July 1985)
ETS Materials
Sample Statistical Data on Education in Jordan
Sample Test Materials

I. SUMMATIVE EVALUATION PLAN

This section of the report describes the summative evaluation plan proposed for the Arabic Reading Series Project. The plan is based on information gathered by ETS during the period May 1, 1985 through July 31, 1985 from the following sources:

- o references and materials provided by CTW,
- o meetings and discussions with CTW staff,
- o meetings and discussions with AID staff,
- o the CTW seminar/workshop in New York City for JCTV staff and CTW consultants from Jordan and the United States (June 24 - July 4),
- o the JCTV seminar/workshop in Amman for researchers and educators from Jordan, Egypt, Morocco, North Yemen, and Tunisia (July 20 - 22),
- o the joint CTW/JCTV follow-up meeting of researchers, TV producers, and writers in Amman (July 23 & 24),
- o meetings with personnel at the Office of the Ministry of Education in Jordan (July 25),
- o meetings with AMIDEAST personnel in Amman (July 25),
- o meetings with personnel at Yarmouk University and the Model School at the University (July 27), and
- o meetings with personnel at the University of Jordan and the Model school at the University (July 28).

An important outcome of these meeting is the statement on the goals and objectives of the Arabic Reading Series Project. The statement was first drafted by Dr. Mohamed Ibrahim, Director of the Language Institute, University of Jordan, at the New York City workshop in late June. It has gone through four drafts and will serve as the basic guiding document for the summative evaluation.

Purpose of the Summative Evaluation

The purpose of the summative evaluation is to assess the degree to which the Arabic Reading Series Project attains its goals and objectives. To accomplish this overall purpose, the summative evaluation must first identify the goals and objectives of the

project and decide on ways to assess their attainment. This will be done by transforming the goal statements into variables, giving operational definitions of the variables, and developing ways of assigning measures to the variables. To illustrate these purposes, consider the following goal: to help children pronounce correctly all the sounds of Modern Standard Arabic. Within that goal, the TV series will focus on the pronunciation of the definite article when used in "sun" and "moon" words. A measure would be the number of correct answers on a short test of several items using "sun" and "moon" words. Children might be observed using such words in class, and the observer might rate their performance. Teachers can be asked about their perception of the childrens' performance on that skill. All of these would provide measures of the skill.

Another purpose of the summative evaluation is to implement one or more evaluation designs so that measures of variables can be used to infer conclusions about the impact of the Arabic TV series on the children. The impact should be determined for all important variables. Because it is frequently the case that programs are more effective for some children than for others, it is important that the sample in the summative evaluation be representative of the children in the targeted countries. Therefore, it is necessary to include samples from all important groups of children, e.g., urban and rural children, girls and boys, children from schools of differing types and sizes, and children from a wide range of differing levels of ability.

Realizing that there are many variables of interest in the Arabic Reading Series Project, and that impact may vary across Arab countries and groups of children, the purpose of the summative evaluation can best be stated as follows:

> for each dependent variable of interest, to provide evidence about the impact of the program on important groups of children, in a number of settings, and under a variety of viewing conditions.

The number of dependent variables will be determined by the goals and objectives finally set for the project.

Although results of the formative evaluation to be conducted in December may lead to modifications of the goals and objectives statement, those goals and objectives clearly identified at present include the following in the areas of Pronunciation, Orthography, Syntax, Grammar, and Lexis.

A. Pronunciation:

- o correct articulation of all sounds in Modern Standard Arabic;

- o correct aural discrimination of individual Arabic sounds;
- o correct intonation of specific patterns of written language (questions, exclamations, and so forth);
- o correct pronunciation of syllables, words, and sentences; and
- o use and appreciation of language as a source of joy and amusement.

B. Orthography:

- o visual discrimination of letters,
- o recognition of diacritical and short vowel signs,
- o skill in dealing with problems arising from lack of correspondence between sounds and symbols,
- o correct letter formation and spelling in writing,
- o correct use of punctuation marks, and
- o recognition of differences in numerals used in Maghrib and Mashriq countries.

C. Morphology:

- o increased familiarity with inflections, endings, and certain grammatical devices;
- o increased familiarity with special issues related to dual forms, passive/active verb forms, and so forth;
- o increased familiarity with derivational patterns; and
- o increased familiarity with structural patterns and analysis of Arabic.

Goals in the area of Morphology were discussed in great length at the meeting in Amman. It was agreed that these goals should be accomplished through many examples and illustrations of the issues. The children are not expected to understand why these various linguistic phenomena occur. It is expected that the goals and objectives statement will be useful to the writers and producers.

D. Syntax:

- o familiarity with word order and its relation to meaning, and

- familiarity with grammar and its relation to meaning.

As in the case of Morphology, the intention is that the children will develop familiarity with these points indirectly through the use of examples and illustrations.

E. Lexis:

- recognize and comprehend sight words and expressions;
- learn new words in Modern Standard Arabic, especially words corresponding to things, persons, and events familiar to the children;
- increased familiarity with word families;
- increased familiarity with lexical variations in Modern Standard Arabic;
- increased familiarity with dictionaries and reference materials; and
- increased familiarity with simple metalinguistic terms, e.g., word, sentence, names of letters, and punctuation marks.

Suggestions for including goals more specifically targeted to comprehension were suggested in the Amman meeting and will be included in the final draft of the goals and objectives.

The goals and objectives are not based only on those areas of language that are difficult for children and that need reinforcement at the ages targeted by the series. The goals and objectives are also based on those areas of language that are appropriate for presentation on TV. Thus, it was necessary in drafting the goals to bring together experts in both the fields of language learning and TV production to use their skills jointly to produce a TV series that will be beneficial to children and effective in helping them to read and to enjoy reading.

In this project, the process used in the past by the Children's Television Workshop to produce high quality and effective programs was employed. Language experts and TV production experts from Jordan were brought together in New York City for ten days (June 24 -July 4) of intensive work with CTW staff and their consultants to focus on setting specific goals and objectives for the projected TV series. It was expected that the goals and objectives set by this group would provide the foundation for the development and production of 65 half-hour shows. Because one general goal of the project is to provide a series with wide

appeal to many Arab countries, it was expected that the initial draft of the goals and objectives fashioned in New York City would be reviewed by language experts from other countries and revised in light of their input. This was in fact the purpose of the second workshop in Amman, Jordan (July 20 - 24).

In Amman, representatives from Egypt, Morocco, North Yemen, and Tunisia, as well as additional language experts, TV staff members, and educators from Jordan, reviewed the draft goals and objectives statement and made suggestions for its revision. In most cases the revisions were minor, but, in some cases, there were major changes that all participants agreed improved the statement of goals and objectives.

The plan presented below is based on the statement of goals and objectives and on meetings with educators from Jordan, Egypt, Morocco, North Yemen, and Tunisia. It covers the period from September 1, 1985 through February 29, 1988. The details of the implementation of the plan will be specified further as the project progresses and collaborative relationships are established with participating countries. A full report on the results of the summative evaluation will be presented to CTW by February 29, 1988.

Dependent and Independent Variables

The primary purpose of the Arabic TV Series will be to enhance the knowledge, skills, attitudes, and behaviors of children in the area of reading. The target audience will be children in Grades 1 through 4 with the greatest emphasis on Grades 2 and 3.

Based on the goals and objectives, ETS will identify variables to be included in the summative evaluation. The dependent variables will be those assumed to be related to outcomes of the project - those that will be influenced by the project. It will be the task of the summative evaluation to estimate the impact of the TV series on the important dependent variables.

Independent variables are those which, in turn, influence the dependent variables. Are the reading skills of the children influenced by the types of schools they attend, the teachers they have, the environment in which they are taught, and other variables related to the situation or context in which they live? Do the reading skills of the children depend on other characteristics - initial skills at the beginning of instruction, aptitudes, and/or abilities? Will the impact of the TV series on the children depend on characteristics of the exposure the child receives, the number and distribution of programs viewed, the number of times programs are viewed, the conditions under which they are viewed (e.g., at home alone, at home with older or younger children, at home with or

without parents, in group settings inside or outside of school, with or without teachers present, with or without encouragement by teachers, and so forth)? Although all conditions cannot be studied in detail, it is necessary for the summative evaluation to include samples of important and unique viewing conditions.

It is clear that the independent variables are critical to the research designs used in the evaluation. The TV series may be more effective under some conditions than others. By taking into account these independent variables, we are able to answer not only the question: "Is the TV reading series effective?", but rather "How effective is the series, for which children, and under what conditions?"

In order to measure the dependent variables, it will be necessary to operationalize them in detail and to give examples of ways to indicate that the objective is attained. To a great extent, this has been done in the Statement on Goals and Objectives. The following is a listing of some of the variables, operational definitions, and specific examples that can be used to generate measures corresponding to some of the specific items in the goals and objectives statement:

1. Pronounce correctly sounds which are not well discriminated in some social and regional dialects (e.g., qaf and hamza; tha′ and ta′);

2. Discriminate aurally sounds spoken by others (e.g. ta′ vs tha′);

3. Recognize punctuation symbols and produce the correct corresponding intonation;

4. Pronounce correctly syllables, words, and sentences (e.g., definite article with "sun" and "moon" letters);

5. Use and enjoy language;

6. Discriminate visually the letters of the alphabet and their names (e.g., "alif maqsura" from "alif mamduda"; letters that differ only in number/position of dots);

7. Recognize diacritical and short vowel signs and their contribution to pronunciation (e.g., fat-ha, damma, kasra, shadda, sukun, madda, hamzatu l-wasl, damm, kasr);

8. Deal successfully with problems which arise from the lack of correspondence between spelling and pronunciation (e.g., sounds represented by different letters, letters and symbols which are written but not pronounced);

9. Deal successfully with the following components of language - not necessarily understanding why, e.g.

   - jazm in verbs with lam, fath with 3rd person singular verbs in the past;
   - hamzatu l-wasl in some verb forms;
   - sound and broken plurals;
   - dual forms;
   - passive and active verb forms;
   - nominal and adjectival forms derived from different verb forms;
   - families of words derived from the same root (e.g., to write, book, writer, office, library, letter, and so forth);

Design of the Evaluation

The purpose of the research design is to provide a structure that will permit valid conclusions about the impact of the program to be drawn from the data collected. The most powerful designs allow the evaluator to isolate the effects of the treatment under study and eliminate other plausible explanations of the results. Because designs are so critical to the success of a summative evaluation, they are discussed in considerable detail.

Rationale for Research Designs

Simply to pretest and posttest the children before and after they have viewed the Arabic Reading Series does not lead to valid conclusions about the impact of the program because the children might have learned the content and skills in the programs in their ordinary school program. Alternative, plausible reasons for the results are not eliminated by such a design. If it could be shown that the content and skills taught in a program were unrelated to content and skills developed by children in normal growth, then the design would be that much more powerful.

Assume the simple case of a single student. At time t(1), the student is tested on a variety of skills, knowledge, and aptitudes. Then, the student is exposed to some program or treatment. At time t(2), following the treatment, the student is tested on some outcome related to a goal or objective of the treatment or program. The critical question we would like to answer is the following:

Is the child's performance on the outcome measure better or worse than it would have been if he or she had not been exposed to the treatment or program?

Suppose we call the child's performance "Actual Performance." This is simply the observed performance which we can measure, (e.g., the child answers correctly 17 questions out of 20). Suppose we could now go back in time and test the child without his or her having been exposed to the treatment or program. Then, it is clear that the impact of the program on that child is the difference between what he/she actually achieved on the test and what he/she achieved under the "going back in time" condition. Thus, we have a definition of true impact, i.e.,

$$\text{IMPACT} = \begin{bmatrix}\text{ACTUAL PERFORMANCE}\\ \text{WHEN}\\ \text{EXPOSED TO TREATMENT}\end{bmatrix} - \begin{bmatrix}\text{ACTUAL PERFORMANCE}\\ \text{WHEN NOT}\\ \text{EXPOSED TO TREATMENT}\end{bmatrix}$$

Obviously, we cannot undo the exposure and have the child pass through the same time interval again. That is the problem to be solved in evaluation research. Once the child has viewed the TV program, we cannot undo the viewing and examine what would have happened if he/she had not viewed.

The purpose of the design is to provide a reasonable way of estimating what would have happened to that child in the absence of the treatment. Thus, for any child, the estimate of the impact of the treatment on any variable is the difference between actual performance and some estimated performance, e.g.,

$$\text{IMPACT} = \begin{bmatrix}\text{ACTUAL PERFORMANCE}\\ \text{WHEN}\\ \text{EXPOSED TO TREATMENT}\end{bmatrix} - \begin{bmatrix}\text{ESTIMATED PERFORMANCE}\\ \text{WHEN NOT}\\ \text{EXPOSED TO TREATMENT}\end{bmatrix}$$

It is the estimated performance that calls for ingenuity and careful planning in designing research and evaluation studies.

Suppose there are two children. One is given the treatment and one is not given the treatment. The child who did not have the treatment can be used to estimate what would have happened to the child who had the treatment in the absence of the treatment. But, this design does not eliminate a very simple hypothesis, i.e., that the difference after treatment is just a reflection of the difference before treatment. The child who scored higher was better initially. One way to strengthen this simple design is to test the children before the treatment. But what do you test on?

Suppose neither child knows MSA. They will both do very poorly initially. But, after one child receives the treatment, he may perform very well. Has the treatment been effective? It would seem so, although it is still possible that the second child was a poor learner. He did not learn the MSA that a child similar to the one who received the treatment might have learned anyway without the treatment. Now, we are coming to the key element in a good design. A student similar in every way to the child who receives the treatment is necessary to obtain a reasonable estimate of what would have happened in the absence of the treatment. More specifically, the non-treatment group must be equivalent to the treatment group so that valid comparisons can be made for the two groups on a host of outcome measures.

If a whole class of students receives the treatment, then the impact for the group can be defined by extension as the difference between what the group actually achieved and what the group would have achieved without the treatment. As in the previous discussion, if a group of similar students is available, it can be used to estimate achievement in the absence of the treatment. If children could be assigned randomly to two groups, then, by definition of random assignment, the groups are similar in the sense that differences are no greater than would be expected by chance. However, even under chance, large differences may occur. Therefore, even when groups are determined randomly, measures on important initial variables should be gathered to verify similarity.

In the Arabic Reading Series Project, we may be able to use this powerful design (DESIGN 1) in some cases where the TV viewing is controlled, for example, by using video cassettes in schools (school-based studies) in areas where the show has not been broadcast. We include one or more instances of this kind of design in our summative evaluation plan. It would be a simple design to implement and would be appropriate for areas of Morocco and North Yemen where TV broadcasting does not reach. Also, this design could be implemented if there is a lag between the end of production and the beginning of broadcasting. ETS suggests that such a design be implemented in several instances if at all possible. It provides control over extraneous circumstances. It allows for a variation in the intensity of viewing. And, it's use would provide the most convincing evidence about the impact of the TV series. On the other hand, setting up such a condition would itself be a variable to be taken into consideration. This would not be the ordinary viewing situation intended by the developers, i.e., viewing of the series by the child in his or her home.

Now, suppose the TV series is aired in 1987. At some point, we measure the achievement of a sample of children who may have viewed the series. What is a good estimate of what these children

would have achieved if they had not viewed the TV series. Would a pretest given in 1986 be a good estimate? Obviously not. Children who had not viewed the series would have developed to a great extent because they are learning a great deal at this stage of their lives. A better estimate for the achievement of the children in a given grade in a given school at any point in 1987 is the performance of children in the same grade in the same school at the same point in 1986. Suppose we test the children in a certain school in April of 1986. They average 12 correct on a test with 20 questions. In April of 1987, we test the children in that same school at that same grade. We use their average score as the actual score of the children who viewed the TV series. We use the average score of the 1986 children as the estimate of what the children would have scored in the absence of the program. This is a good design, but it has the same weakness as the example given above for one student. Suppose the children in 1987 are a little smarter than those in 1986; or a little more motivated; or, vice versa, suppose the 1986 children were a little smarter. The TV series might have an impact that we missed. Therefore, to strengthen the design we attempt to demonstrate that the children are in fact similar. We do this by testing them on some content or skills unrelated to the treatment. This would have two values. In addition to providing information on the similarity of the children, it would provide a more reasonable testing situation for the children in 1986. For, if the test materials are heavily targeted toward the objectives of the TV series, they may be too difficult in general for the children in 1986. This is the general design (DESIGN 2) suggested for this study. For estimated achievement, ETS will use the achievement of similar children in the previous year.

The design given above can be made stronger if we have longitudinal measures on the same children, some of whom view the TV series and some of whom do not. This is the third basic design that ETS suggests be built into the study. It does not require additional testing. But, it does require gathering information about the extent of viewing the children have done in 1987. Consider the children in Grade 1 in the ETS 1986 sample. They are tested as an estimate for the Grade 1 children in the 1987 sample. They must be similar which means we need to test enough children to sample differing types of schools, urban and rural, large and small, coeducational and single sex schools. Now, the children in Grade 1 in 1986 move into Grade 2 in 1987. They are tested and compared against the corresponding Grade 2 sample in the same school in 1986. In addition, we can ask the children in Grade 2 how many of the TV shows they have seen. Suppose some children have not had an opportunity to view the shows. Or suppose there are a range of viewing intensities. Then, we have the components of a strong design (DESIGN 3). The children have not been randomly assigned to viewing intensities. But, now we have their test data

before viewing. Those who have not viewed (or as many groups as we decide to use based on the distribution of viewing intensities) provide an estimate for those who have. Or, in the case of more than two categories, the lowest level of viewing provides an estimate for the higher levels. But, the children were not assigned randomly and may have differed initially. Such differences would provide a simple, plausible explanation for subsequent differences. Now, we need to introduce a powerful analytic technique that allows us to adjust the estimate so it more nearly approximates what the children who viewed would have achieved if they had not viewed.

The analytic strategy is covariance analysis. We know from previous studies, and can verify in this study, that children with higher initial scores will receive higher final scores. This is intuitively clear in that brighter students in general achieve better. The relationship between initial and final scores in general, the fact that they are positively correlated, allows us to use as a better estimate for a given group the estimate based on all of the data rather than only on the average scores. If the viewers were a little smarter than the non-viewers to start with, a good estimate would be the estimated achievement from the regression of final scores on initial scores. Analysis of covariance is a powerful method that allows for the aggregation of data across groups and provides a better chance of verifying a positive impact when it really does exist. The design given in Table 1 will be appropriate for cross-sectional studies in Grades 1 through 4. The same design also will be appropriate for covariance adjusted longitudinal studies in Grades 2, 3, and 4.

In addition to assessing the impact of the TV series on the children by carefully designed cross-sectional and longitudnal studies of achievement, ETS also suggests that teachers and parents be asked in questionnaires to give their judgments of the effectiveness of the Arabic TV series in reading.

Impact on the attidudes and behaviors of the children will be assessed in the same way, providing only that resources and time are sufficient to design and develop good instruments for gathering information about the attitudes and behaviors of the children. Children in 1987 can be asked if they like to read, if they do read, how much they read, if they visit the library, if they think reading is important, fun, and so forth. Responses in 1987 can be compared with responses in 1986 and differences can be used as estimates of the impact of the Arabic TV series on the attitudes and behaviors of the children.

What is the impact on teachers and parents? We suggest that questionnaires be limited to 1987 distribution. Although the data may not be suitable for comparisons, it is common to ask teachers

to judge whether or not they have been affected by a given treatment. They also can provide information on which TV programs they have found most helpful, and so forth. Similar information can be collected from parents.

The basic designs discussed above will be used in both home viewing sudies and school viewing studies. In the case of home viewing, we will still gather the information through the schools. However, information about viewing will be gathered from both children and parents. In the case of school viewing, we can control all of the extraneous variables. If a large group is available, random assignment may be possible. In any case, the children can be tested before and after they are exposed to planned variations in levels of exposure - view the programs once, twice, and so forth.

The parent and teacher data, the attitude data on the children, and the children's behaviors will all enter into the qualitative study of the TV series' impact. Other qualitative data that can be collected include information on teacher attitudes toward reading, attitudes toward TV as an instructional medium, and so forth. Considerable work must be done if this component of the plan is approved. Variables have to be identified, measures defined and designed, data collected, analyses conducted, and results interpreted.

The question of audience reach has been included as a component to be addressed in the summative evaluation plan. ETS suggests that audience reach be considered as a dependent variable in its own right. From the views expressed by the representatives at the meeting in Amman, if the series is broadcast, it will be viewed by the children because there is virtually no competition during the children's viewing time. If there is a desire to estimate audience reach at times when the programs may be broadcast for adults, then a survey of a sample of children can be taken and estimates extrapolated to regions represented by the samples.

Summary of the Design Considerations

The primary design agreed to by all researchers at the Amman meeting was that of a cross-sectional study in which performance of children in the targeted countries in 1986 is used as the expected value against which to compare the performance of children in 1987 after the series has begun airing (Design 2 above). At present, the ETS plan suggests gathering data at four points in time:

(1) April 1986,

(2) November 1986,

(3) April 1987, and

(4) November 1987.

By gathering information on the reading skills of the children at these four points in time across grades 1 through 4 in several samples of schools, ETS will be able to conduct a relatively powerful analysis to estimate the impact of the Arabic Reading Series Project on the reading skills of the children in the targeted countries.

The research designs are based on two distinct viewing assumptions:

- o the children view the Reading Series in their homes with no planned control of their viewing, and
- o the children view the Reading Series in classrooms or other school or laboratory settings with viewing planned and controlled by the research team.

In the former situation, two designs are projected:

- o a cross-sectional design in which baseline data is gathered in 1986 and used to assess impact in 1987, and
- o a longitudinal design in which the same students are pretested in 1986 (Grades 1,2, and 3) and posttested in 1987 (Grades 2,3, and 4). Information on viewing patterns and intensities are gathered post-hoc from children, teachers, parents, and others (TV personnel, local administrators, and so forth).

In the case of controlled studies in class settings, the designs are the classical pretest-posttest designs with comparison groups and random assignment when possible:

- o longitudinal designs with pretests and postests and random assignment where possible, and
- o longitudinal designs with pretests and posttests and no random assignment to treatment and comparison groups.

In the home viewing situation, the unit of analysis will be the children in a grade in a school in a month in 1987. We suggest that the months targeted be April 1987 and November 1987. April 1987 provides the longest time possible for viewing before testing without interfering with the end of the grade and the school testing programs in May. November 1987 allows the school year to get underway before testing is implemented, and, at the same time,

gives the Arabic Reading Series the longest possible time to exert an impact on the children and still leave time for analysis of the data and preparation of a report by February 1988.

In each site, there will be at least two schools in the study. In one, the children in grades 1 through 4 will be tested in April 1986. Then, in April 1987, the children in the same school in grades 1 through 4 will be tested. In the second school, the children in Grades 1 through 4 will be tested in November 1986. Then, in November 1987, the children in Grades 1 through 4 will be tested.

A. Home Viewing Studies (Naturalistic Experiments)

Grade 1: 2 cross-sectional studies (Same Grade/Different Students)

Grade 2: 2 cross-sectional studies (Same Grade/Different Students)
2 longitudinal studies (Same Students/Different Grades)

Grade 3: 2 cross-sectional studies (Same Grade/Different Students)
2 longitudinal studies (Same Students/Different Grades)

Grade 4: 2 cross-sectional studies (Same Grade/Different Students)
2 longitudinal studies (Same Students/Different Grades)

B. Class Viewing Studies (Controlled Experiments)

Grade 1: Experimental Design with/without random assignment
Pretest at beginning (Between January - September, 1987)
Posttest at end (Between March - November, 1987)

Grade 2: Experimental Design with/without random assignment
Pretest at beginning (Between January - September, 1987)
Posttest at end (Between March - November, 1987)

Grade 3: Experimental Design with/without random assignment
Pretest at beginning (Between January - September, 1987)
Posttest at end (Between March - November, 1987)

Grade 4: Experimental Design with/without random assignment
Pretest at beginning (Between January - September, 1987)
Posttest at end (Between March - November, 1987)

Impact in each of these studies will be determined by different analytic strategies. A listing of the critical issues are given below:

1. Cross-Sectional Studies (Different students in 1986 and 1987)

   o Impact will be evaluated in Grades 1 through 4.

- o Impact will be evaluated in April 1987 and November 1987.
- o Posttests will include items on both the series and the curriculum.
- o Outcome Scores will be the scores on the "series" items.
- o Comparison Scores will be the scores of similar children in April and November 1986 on the "series" items.
- o Scores on the "curriculum" items will be used to assess the similarity of the groups.
- o Impact = [1987 Score] - [1986 Score] for April and November.

2. Longitudinal Studies (Same students in 1986 and 1987)

   - o Impact will be evaluated in Grades 2 through 4
   - o Impact will be evaluated in April 1987 and November 1987.
   - o Students and Tests are the same as above.
   - o Outcome scores are the scores on the "series" items.
   - o Treatment and comparison groups will be determined on the basis of surveys on viewing habits and activities.
   - o Estimated Scores for treatment groups will be derived from the regressions of 1987 scores on 1986 scores for matched children across the two years.

3. Controlled Experiments (Treatment/Control Groups in 1987)

   - o Impact will be evaluated in Grades 1 through 4.
   - o Impact will be evaluated at end of the controlled treatment.
   - o Posttests will include items on both the series and the curriculum.
   - o Treatment and Comparison Groups will be determined by random assignment when feasible.
   - o Estimated scores for treatment groups will be derived from the regressions of posttest scores on pretest scores for matched children in the comparison groups.

Illustration of the Designs for Home Viewing Studies in Jordan

In the following description, the design is described in detail for Jordan. Less comprehensive implementations of the same design will be implemented in other targeted countries to the degree possible given the resources of the summmative evaluation study.

GRADE	APRIL 1986	NOVEMBER 1986	APRIL 1987	NOVEMBER 1987
1	X1/A1.	X1/N1.	X1/A1	X1/N1
2	X1/A1.	X1/N1.	X1/A1	X1/N1
3	X2/A2.	X2/N2.	X2/A2	X2/N2
4	X2/A2	X2/N2	X2/A2	X2/N2

Table 1. Basic Evaluation Design for Home Viewing Studies

In this design, X1 and X2 stand for tests related directly to the Arabic Reading Project objectives. In the July meeting, ETS and the participants agreed that two levels of tests would be sufficient to cover the four grades, a primary level for grades 1 and 2 and a higher level for grades 3 and 4. A1, A2, N1, and N2 stand for corresponding levels of tests appropriate for the children based on the curriculum in the schools and the time of year (A for April, N for November). It was agreed that testing the children in 1986 only for objectives to be included in the TV programs would be too difficult for the children and would likely result in a negative, failure experience. In addition, the data on

the A and N tests will allow for a comparison of the groups across years on items not directly related to the TV series.

Although there will not be a planned variation in viewing, the design is set up so that post-hoc measures of viewing can be used to divide the groups and conduct a relatively straightforward analysis using the longitudinal data across years to study the differences in development between those who view more or less frequently. For example, half the children in Grade 2 can be tested a year later in grade 3. The data in 1986 can serve as pretest data and the 1987 data as posttest data for groups varying in the extent of viewing. This aspect of the design is indicated by the dashed lines. The primary level of analysis will be between children in the same grade across the two years. Those data cannot be adjusted because they are differenct groups of children. However, the differences in the A and N tests will serve as indications of what to expect in the X tests.

Projected Sample

ETS plans to select a small number of schools and classes to provide coverage of all important site and school variables in each of three Arab countries. The information needed for selecting the sample has been gathered for Jordan and is given in Appendix 4. Similar data will be gathered for other Arab countries if the ETS plan is approved. A sampling plan for three countries is given in Table 2.

	NUMBER OF CLASSES TESTED (1986 AND 1987)			
	GRADE 1	GRADE 2	GRADE 3	GRADE 4
JORDAN	8	16	8	4
Country 2	4	8	4	2
Country 3	4	8	4	2

Table 2. Projected Sampling Plan by Class

Assuming a class size of 30 students, the sampling design gives the following breakdown for a sample of 2,160 students.

	NUMBER OF STUDENTS TESTED (1986 AND 1987)			
	GRADE 1	GRADE 2	GRADE 3	GRADE 4
JORDAN	240	480	240	120
Country 2	120	240	120	60
Country 3	120	240	120	60

Table 3. Projected Sampling Plan by Students

If there are two classes in each school, then the numbers of participating schools would be half the numbers shown in Table 2. The structure is given by Grade for each class in Table 4 for the cross-sectional designs and in Table 5 for the longitudinal designs.

	April 1986	April 1987	November 1986	November 1987
Grade 1	X1/A1	X1/A1	X1/N1	X1/N1
Grade 2	X1/A1	X1/A1	X1/N1	X1/N1
Grade 3	X2/A2	X2/A2	X2/N2	X2/N2
Grade 4	X2/A2	X2/A2	X2/N2	X2/N2

Table 4. Cross Sectional Designs

	April 1986	April 1987		
		Low-viewers	Moderate-viewers	High-viewers
Grade 1	X1/A1			
Grade 2		x1/a1	x1/a1	x1/a1
Grade 2	X1/A1			
Grade 3		x2/a2	x2/a2	x2/a2
Grade 3	X2/A2			
Grade 4		x2/a2	x2/a2	x2/a2

Table 5. Longitudinal Design for April 1986 & 1987

Instrument Design and Development

A preliminary investigation during July in Amman indicates that some test items are available in the participating countries. In Jordan, the Ministry of Education has shared with ETS the curriculum objectives for the elementary grades as well as a copy of a common examination used for all children in the third grade. Personnel in the Curriculum Department of the Ministrty of Education have had experience in developing tests and several attended the ETS Summer Program in Test Development in the past few years. In addition, the Center for Testing and Measurement at the University of Jordan has shared with us samples of test items used in some of their research projects in the School of Education. Examples of materials obtained are given in the appendices to illustrate the kinds of items used.

Participants at the July meeting reacted favorably to the types of items used by ETS in the evaluation of Electric Company, and the indications are that appropriate test materials can be designed for the evaluation. The design and development of appropriate tests will be one of the major tasks to be carried out early in the project, especially in view of our hope to gather data appropriate to the project objectives as early as April 1986. ETS intends to use the skills of persons in the Arab countries to develop the tests. A relatively large number of local personnel have participated in test development courses at ETS during the past decade. ETS will work with a committee of Arabic language, measurement, and curriculum personnel in the development of the tests needed in the summative evaluation.

Other instruments will include Parent Questionnaires and Teacher Questionnaires. These will be modeled on those used in the ETS evaluation of Electric Company and will include information on the childrens' backgrounds, parental attitutes toward reading, the viewing habits of the children and parents, and the reading habits of the children and parents.

Teacher questionnaires will include items on teacher attitudes toward television, viewing habits of teachers, their approaches toward reading, and their judgments about the TV series and its impact on the children.

Data Collection and Analysis

The general consensus at the Amman meeting was that the only realistic way to gather information from children is through the cooperation of the schools in the Mideast countries. This is what had been anticipated in the original ETS proposal, and the meetings in Amman reinforced that projection. However, it is not yet clear whether it would be better to ask the teachers to gather data or to hire our own staff to conduct the data collection. The Ministry of Education appears to be interested in the evaluation and may have important control in this area. This issue will need to be decided during the course of the project. The procedure may vary from country to country.

In any case, schools and classes will no doubt be involved. Therefore, there will be some options in deciding on the unit of analysis when the data are examined.

The analysis of data will be conducted at two levels: descriptive and inferential. Because this is a new project being implemented under unusual and unique circumstances, broad and comprehensive descriptive analyses will be conducted and reported across many domains of interest: attitudes, motivation, acceptance

by students, teachers, and parents; judgments of worth by students, teachers, parents, project observers, outside observers, and other experts as deemed appropriate.

For quantitative data, models using general ETS approaches with analysis of covariance designs will be used. Essentially, the outcomes of instruction and project activities will be adjusted for initial skills of the children to identify the portion of the variance in the outcome measures attributable to the instruction delivered by the CTW project.

Schedule and Personnel

Although projections have to be relatively tentative at this time, a schedule has been included to give an idea of what is being planned.

September 1985

- o ETS revises the summative evaluation plan in light of reviews by CTW and AID
- o ETS reviews the revised Statement of Goals and Objectives
- o Discussions with Mideast personnel regarding test development

October 1985

- o Set test specifications based on the new draft of goals and objectives and the Grade level skills of children
- o ETS begins test development
- o CTW curriculum finalized and ratified by local collaborators

November 1985

- o Prepare plans for review by Ministry of Education
- o Begin test devolopment/questionnaires

December 1985

- o Observe formative evaluation activities
- o Meet with test development committee

- o Arrange for pretesting of items
- o Select schools to participate in summative evaluation
- o Schedule tesing in April 1986 in Jordan

January 1986

- o Attend CTW/JCTV workshop to review results of formative evaluation and make any needed midpoint corrections
- o Review test items with subcommittee
- o Prepare drafts of reading tests (including school items)

February - March 1986

- o Print tests in preparation for April 1986 testing
- o Arrange for distribution of materials

April 1986

- o Test children in Grades 1 through 4

May - June 1986

- o Receive materials from schools and edit them
- o Prepare test materials for return to United States

July - August 1986

- o Schedule the November 1986 testing

November 1986

- o Gather data from the children in the schools

December 1986 - March 1987

- o Prepare for April 1987 testing and questionnaire distribution

April 1987

- o Test the children in the schools

May - June 1987

- o Prepare data for routing to United States

July - September 1987

- o Prepare for November 1987 testing and questionnaire distribution

November 1987

- o Test children in schools

December 1977 - February 1988

- o Prepare materials for routing to United States
- o Analyze data
- o Interprete results
- o Write final report

Personnel

The evaluation project will be directed by the research area of ETS under the cognizance of the Director of Program Research, Garlie Forehand. Staff will include personnel from all three ETS research divisions, the Division of Education Policy Research and Services, the Division of Measurement Research and Services, and the Division of Technolgy and Statistical Services.

ETS will provide the basic core staff responsible for all aspects of the evaluation including designing the evaluation, selecting/designing data collection instruments, training of staft to gather data, directing and coordinating the data collection and transfer of data, reduction and analysis of the data, interpretation of the results of the analyses, and production of an overall evaluation report on the CTW project.

As needed, staff external to ETS will be identified and incorporated into the overall project. It is expected that expertise in the Arabic languages will be needed at a minimum. Consultants in the Mideast who are experts in early learning will be used on an ad hoc basis as needed. Consultants from other organizations such as AMIDEAST also will be used as needed.

II. OVERALL BUDGET

Overview

ETS has projected a budget of $350,000 over the life of the project including expenses incurred in preparing the summative evaluation plan and comprehensive report dated August 31, 1985.

Two critical areas of expense are test development and data collection. ETS anticipates using local personnel in both tasks. To test the children in April of 1986, test development will have to proceed quickly. It is anticipated that a small committee of researchers who participated in the Jordan meeting in July will be asked to serve as the steering committee for the test development effort. They would review the goals statement from the Amman meeting and set the test specifications. Tasks will include

- o setting the number of test items to be used for each skill to be tested,
- o setting the overall length of the test,
- o setting targets for difficulty levels of the items, and
- o assigning item development to researchers and teachers in the participating countries.

As items are generated, they would be reviewed by members of the committee. A second meeting would be held in January to make the final selection of items to be included in two tests - one for first and second grade children and one for third and fourth grade children. We have estimated per diem costs for this task at about 30 to 35 Jordanian Dinars (about $100) per person. There would be additional costs for hotel accomodations and travel. We have budgeted $24,000 (4 persons on the steering committee and an additional 6 persons developing test items) for this task.

The data collection component of the evaluation will depend on the cooperation of schools and teachers. ETS anticipates all data collection being done through the schools, including the home study. A budget of $12,000 has been set for each of four data collection points -April 1986, November 1986, April 1987, and November 1987 - for a total of $48,000.

Other costs have been budgeted for design and development of questionnaires, observation schedules, and other assessment instruments; printing, distribution, and collection of the materials; scoring tests and other assessment materials; editing

and keytaping data; data analysis; interpretation of results; and report writing.

In estimating costs for test development, ETS has considered alternative methods for designing and developing the tests needed. The validity of the evaluation depends on the appropriateness of the test materials for the goals and objectives of the Arabic reading series as well as their appropriateness for the specific research designs underlying the evaluation. The former, appropriateness for the goals and objectives, requires that test items reflect the learning that should take place when the children view the programs. The latter, appropriateness for the evaluation design, requires that the test items reflect learning that has already taken place before the series is aired and learning that is not related to the TV series. The budget is intended to provide resources for satisfying both priorities. However, the development of test items to sample learning directly related to the TV series will be given the higher priority if resources become tight during the course of the project.

Access to schools can be obtained if plans and procedures are explained to the Ministry of Education. In the July meeting in Jordan, ETS staff discussed four anticipated points of testing and data collection (April 1986, November 1986, April 1987, and November 1987). The General Secretary and the Directors of the various Departments seemed interested in the JCTV Arabic Reading Project and willing to facilitate the data collection.

In discussing the logistics of printing, distributing, and gathering test and questionnaire materials from schools in sampled regions of the country with staff at AMIDEAST, ETS asked the Director of the Amman office, Mrs. Janine El-Tal, to consider handling these tasks through her office. ETS anticipates having these services coordinated through her office at AMIDEAST. Mrs. El-Tal also explained the working relationship she had with CTW and suggested a similar plan for ETS. In addition, AMIDEAST could provide office space for ETS staff if needed. Mrs. El-Tal can also coordinate and/or arrange logistical services in other Mideast countries. Per diem costs have been budgeted at 30 - 35 JDs.

Based on ETS experience in working with elementary schools in the United States, teachers are more effective than strangers in testing the children and asking them for information on questionnaires. ETS anticipates asking teachers through the Ministry of Education to cooperate in gathering data from the children. A small honorarium would be provided to participating teachers if that is allowable through the Ministry of Education. The budget is based on the assumption that teachers will do the data collection and that outside personnel will not be needed at the classroom level.

Proposed Budget

In designing the budget through February 1988, ETS has included projections for two ETS staff, i.e., the project director, Dr. Richard T. Murphy, and the associate projedct director, Dr. Ellen B. Mandinach. In keeping with previous discussions, Drs. Murphy and Mandinach will invest time on a flexible basis. Peak periods will include test development in November and December of 1985 and data collection in April 1986, November 1986, April 1987, and November 1987. The details of the budget are given in Table 1.

	5-01-85/ 8-31-85	9-01-85/ 6-30-86	7-01-86/ 6-30-87	7-01-87/ 2-29-88	5-01-85 2-29-88
ETS Staff	16,266	48,143	51,027	35,130	150,606
Consultants	0	36,000	36,000	9,000	81,000
Data processing	0	2,000	2,000	4,000	8,000
Travel	3,000	6,000	6,000	3,000	18,047
Materials/Services	167	575	595	445	1,630
Fee	1,906	9,282	9,573	5,166	25,927
Totals	25,719	125,309	129,2320	69,736	350,002

Table 1. Budget for the Summative Evaluation

Also, refer to the notes on the following page for further details on the budget.

Notes

1. Two ETS persons (Murphy, Mandinach) will provide continuity on the project during its entire duration from May 1, 1985 through February 29, 1988. Intensity of effort will vary as the project reaches critical points. During the four data collection periods, ETS staff will be on-site in the particpating countries.

2. Travel to the Arab countries for stays of one to two weeks have been budgeted at $3000 per trip. Six trips have been budgeted - one in the Spring and Fall of each year for a total of five between September 1985 and February 1988. One has already been taken during July 1985.

3. Data processing costs are budgeted assuming that data will be returned to the United States for analysis and interpretation. It is expected that editing will be done in the host countries before materials are forwarded.

4. Only a small porrtion of the budget has been set aside for materials and services.

5. The ETS fee is set at 8%, the rate used in United States Government contracts.

6. Consultant tine has been used to budget expenses for the test development and data collection. The use of the word consultant is used also for personnel who will work in the data collection and instrument development components of the project.

21

III. PROGRESS REPORT

INTRODUCTION

During this period, Educational Testing Service efforts have been focused on

- o examining background material on the project,
- o discussing the objectives of the project and the summative evaluation with CTW and AID personnel,
- o attending the New York City meeting of CTW and Mideast personnel participating in the project,
- o gathering information about education and testing in the Mideast countries,
- o meeting and discussing with AMIDEAST personnel in the Washington DC office potential plans and procedures for conducting the summative evaluation,
- o attending the Amman meeting of CTW and Mideast personnel from the five targeted countries,
- o meeting with research advisors from targeted countries to discuss potential plans for data collection,
- o meeting with personnel in the University of Jordan and Yarmouk University to examine the work done there in educational research,
- o visiting the experimental schools at the University of Jordan and Yarmouk University and discussing with the principal the potential for establishing a working relationship,
- o meeting with the the General Secretary of Education and the Directors of Statistics, Examinations, Public Relations, and Curriculum and discussing the potential of establishing a working relationship in the summative evaluation, and
- o meeting with AMIDEAST personnel in Jordan and discussing the potential for establishing a working relationship in the summative evaluation project.

Relatively detailed descriptions of the meetings in New York City and Amman are given in the following pages.

SCHEDULE OF MEETINGS

Date	Place	Description	Persons
May 7	New York	Meet with CTW personnel	Anastasio Mandinach Mielke Murphy
May 15	Washington DC	Meet with CTW personnel in the morning at ETS Office	Anastasio Darnell Horne Lufrano Mielke Murphy
May 15	Washington DC	Meet with AID and CTW personnel at Dept. of State	CTW/ETS Freeman Spain
June 5	New York City	Meet with CTW personnel	Horne Kueneke Mielke Murphy Palmer
June 8	New York City	Meet with CTW personnel, UN consultant, writers	Abdeljaber Fortune Horne Murphy
June 18	Washington DC	Meet with AMIDEAST personnel Visit Jordanian Info Office	Mandinach McCloud McNamara Murphy Schmeida
6/24-7/4	New York City	June Workshop	CTW JCTV ETS
7/17-7/29	Amman	July Workshop/University of Jordan/Yarmouk University/ Ministry of Education	CTW JCTV ETS

NAMES OF PERSONS IN THE ARABIC READING SERIES PROJECT

1. CHILDREN'S TELEVISION WORKSHOP (CTW)

Dr. Lutrelle F. Horne	- Project Director, Vice President, Senior Executive Producer
Dr. Keith Mielke	- Vice President, Director of Research
Dr. Edward Palmer	- Vice President, Senior Research Fellow
Ms. Lois Fortune	- Executive Producer
Ms. Joan Lufrano	- Coordinating Producer
Dr. William Darnell	- International Research Director
Mr. Hamid Abdeljaber	- Consultant, UN
Mrs. Majida Hilmi	- Consultant, UN Elementary School
Dr. Hikmat Judeh	- Consultant, Washington, DC

2. THE JORDAN COMPANY FOR TELEVISION, RADIO, AND CINEMA (JCTV)

Mr. Tareq Masarwah	- General Manager
Mr. Zeid Fareez	- Production Manager
Mr. Mowaffaq R. Salah	- Studio Producer
Mr. Hisham Yanis	- Head Writer
Mr. Sabah Saoudi	- Producer/Director
Zahia Annab	- Head of Childrens' Programs
Ms. Margo Malakjalian	- Producer of Childrens' TV Programs
Khamis Maydelawia	-
Jamal Abujaber	- Executive Secretary

3. CONSULTANTS TO CTW - JORDAN

Dr. Mohamed Hassan Ibrahim	- Chief Academic Advisor to CTW, University of Jordan
Dr. Khalil Elaian	- University of Jordan, Director of the Center for Testing and Measurement
Dr. Farid Abu Zeina	- Yarmouk University, Director of the Center for Research and Evaluation
Dr. Daoud Abdo	- Kuwait University, Arabic Languages
Dr. Fakhri Ahmed Tomalia	- UNRWA Training Center, Instructor
Dr. Ahmed Hiasat	- Ministry of Education Director, Curriculum, Supervision, Testing
Mr. Mohamed Hashem El Hassan	- Ministry of Education, Director, Educational TV

4. MINISTRY OF EDUCATION - JORDAN

H. E. Dr. Abdul Wahab Al Majali
Deputy Prime Minister and Minister of Education
Amman Jordan

Dr. Abdulatif Arabiat - Secretary General
Dr. Izzat Jaradat - Director of Educational Statistics
Ms. Nabila Wahbeh - Director of Public and Cultural Relations
Dr. Ali Abdal Razek - Director of Curriculum and Educational Technology
Dr. Ahmed Bishayri - Director of Examinations
Fahmi Othman - Head of Department of Testing
Mohamed Said Mukbel - Member of Department of Testing
Khalil Qara'in - Department of Testing
Bahjeh Muheisen - Department of Testing

5. AMIDEAST - JORDAN

Ms. Janine El Tal - Director of the Amman Office
Ms. Jackie Hammond - Recording Secretary at Amman Meeting

6. OTHER MIDEAST COUNTRIES - CONSULTANTS TO THE PROJECT

1) EGYPT

Dr. Yehia El Ezzabi - American University in Cairo, Vice Dean, Academic Affairs
Dr. Ghalal Al Rashidi - Director, Center for Information, Education, and Communication
Ms. Zeinab Yassin - Ministry of Information, Egypt TV Undersecretary, Children's Television

2) MOROCCO

Dr. Abdelkader Ezzaki - University of Mohamed V, Associate Professor

3) TUNISIA

Dr. Riyad Al Marzouki - University of Tunis, Ministry of Information, Director of Broadcasting
Dr. Mohamed Maamouri - University of Tunis, Director, Bourgiba Language Institute

4) NORTH YEMEN

Dr. Mohamed Hashem Shahari - Director, Center for Educational Research and Developpment
Dr. Abdo Rabo Ahmed Garada - Undersecretary, Ministry of Education

7. AID - Mr. Hal Freeman
- Dr. Peter Spain

OVERVIEW OF THE NEW YORK CITY WORKSHOP: June 24 - July 4, 1985

In this workshop, personnel from The Jordan Company for TV, Radio, and Cinema Production met with CTW staff and consultants to begin the process of goal setting and program planning.

JUNE 24, 1985

On the first day, June 24th, CTW staff outlined the issues to be resolved in the workshop:

- o to whom would the series be targeted, and
- o what areas of reading would be targeted.

It was agreed by all that the Arabic Reading Series would be a truly Arabic TV production, not a translation of Electric Company.

CTW staff explained techniques used in their developmental process for TV program production:

- o the production of a detailed "curriculum statement" as the guiding document for all future work, and
- o the use of a "Writer's Notebook" and a "Curriculum Notebook" as general repositories for all ideas that occur during the course of the program planning and production.

CTW staff also presented brief overviews of the formative and summative research components of the project. A goal of field testing five pilot shows in Jordan in November 1985 was suggested and agreed upon as one component of the formative evaluation.

Dr. Mohamed Ibrahim, chief academic advisor to CTW, discussed some of the unique characteristics of the Arabic language: shapes of letters change according to their position in the word, short vowels frequently are not written, sometimes letters are written but not pronounced, and so forth. This discussion reinforced the importance of considering the series as a distinctively Arabic language effort and not a translation of the Electric Company.

After some discussion, the group agreed that the series must be produced in the Modern Standard Arabic. Dialect variations must be avoided as much as possible. An informative discussion between the Jordanian TV staff and the Jordanian educators focused on the use of vocalization marks in school texts and their use in the TV series. It was agreed that an important goal of the TV series would be to help children make the transition from vocalization to non-vocalization.

As the discussion progressed, a consensus emerged that:

- o the series should be targeted to children between the ages of 6 and 9 (Grades 1 through 4), and

- o the content should focus on areas of the language that are common across all Arab countries.

These decisions served to focus the discussion and led to an agreement that the central focus of the TV series should be aimed at Grade 2 with some material appropriate for Grade 1 and some appropriate for Grade 3. To challenge more advanced children, some material might be targeted at Grade 4 content.

A discussion of the purpose of the TV series (entertainment, instruction) led to a consensus that the series would focus on reinforcement and enrichment rather than on initial instruction. Specific illustrations and examples were discussed. A goal of helping children to consolidate what they have learned was presented by one of the participants and accepted by the group. Thus, the group agreed that:

- o consolidation, reinforcement, and enrichment were appropriate objectives of the series in distinction to initial instruction in reading.

Other goals and objectives included providing examples for teachers and a source of learning for illiterate adults. The latter is seen as a particularly important area of social concern.

CTW staff introduced the issue of the need for actors and actresses who can use the Modern Standard Arabic and yet seem natural in the programs. It was agreed that this is an important point to be seriously dealt with at production time. All agreed that "good" actors and actresses can succeed at this. Acceptance of the pronunciation across the Arabic countries was recognized as an important objective of the project to be attended to during the time of production. Subsequently, a linguistic advisor, to be present during production, was hired to assure that this need was met. It was agreed also that scripts would be read by persons from a number of Arab countries and words that differ across countries would be avoided.

At this point, it was suggested that differences between Arab countries be presented in positive ways by actual films of the local countries with subjects then using whatever languages, dialects, and so forth, are most appropriate. It was suggested further that learning about the geography of the Mideast, about computers and science, about new areas of technology, might be secondary goals and objectives of the series. Other possible goals

and objectives suggested included modeling various behaviors by showing children

- o communicating,
- o asking questions and being curious, and
- o using their imagination.

At this point, CTW staff suggested that participants brainstorm and express other potential goals and objectives for the series. This process resulted in a list which was later revised and distributed to the group.

AT THE END OF THIS FIRST DAY, COMMITTEES OF PARTICIPANTS AGREED TO ORGANIZE ALL THAT HAD BEEN DISCUSSED AND PRODUCE WRITTEN DOCUMENTS FOR A LATER MEETING OF THE GROUP.

JUNE 25, 1985

CTW staff distributed a copy of a "writer's assignment sheet" (1 page) for Show #528 of Electric Company, the script that was subsequently written (14 pages) based on the assignment, and a "short rundown" (7 pages) of the show. The program was shown on videotape and the script followed by participants.

This illustration of a CTW program generated a lively discussion among the participants. Positive and negative aspects of the program were noted. Approaches that could be used in Arabic programs were discussed. Aspects that could not be so used were pointed out.

After this discussion, excerpts of programs from Electric Company and Sesame Street were shown to illustrate production techniques used by CTW. CTW provided written materials corresponding to the shows giving the curriculum goals and comments for each segment. Programs included examples of live action films and animation sequences. Again, positive and negative aspects of the programs were discussed by both CTW and JCTV personnel. JCTV stressed its intent to make sure the series has an identity of its own reflective of Arabic heritage and culture.

Some excerpts of Iftah Ya Simsim were shown and particpants discussed the use of humor in the segments, the use of songs, and the level of the presentation. This presentation led to a more detailed discussion of the use of MSA in the programs and the areas of detail that will have to be dealt with even though the consensus is to use MSA.

34

CTW staff presented an overview of the results of their research on TV production. The following points were stressed:

- o use of advance organizers,
- o positioning of letters on the TV screen,
- o use of repetition,
- o number of words on the screen,
- o eliciting responses from the children,
- o use of "speech balloons,"
- o refrains in songs,
- o use of words that attract children's attention, and
- o use of stories.

JCTV staff responded positively to these points and expressed enthusiasm for incorporating them into their production strategies. Details of the points were discussed further. CTW staff continually brought the discussion back to the review of each of the segments shown on the videotape. Characters from Arabic heritage (Alladin, Ali Baba, Sinbad, Jiha) and current stories were suggested for some of the skits. Comic actors similar to Bill Cosby were discussed. Problems with games were pointed out.

CTW staff showed a videotape of research results on children's attention to TV. Graphs showed how children lost attention on a number of segments.

THIS DAY ENDED WITH AN AGREEMENT TO WORK IN TWO GROUPS ON THE NEXT FEW DAYS, ONE GROUP FOCUSING ON CURRICULUM ISSUES AND ONE ON PRODUCTION ISSUES. THE GOAL OF DEVELOPING A CURRICULUM STATEMENT TO GUIDE THE PRODUCTION OF THE PROGRAMS IN THE SERIES WAS STRESSED.

JUNE 26, 1985

Before breaking into two groups, the participants discussed a number of content areas that seemed ideally suited to the TV series: when the l in Al is pronounced and not-pronounced, long and short vowels, and the basic importance of roots in Arabic words. Ways of illustrating these areas were suggested. Participants were reminded to write ideas down for the "Writer's Notebook."

The Curriculum Group began by reviewing a first draft of a curriculum goals statement that included assumptions, guiding

principles, and a rough sketch of reading skills. It was agreed that assumptions needed to be spelled out much more specifically. In the discussion of the general guiding principles, it became clear that issues related to educational philosophy, values, and attitudes, references to the Koran should be in a separate document. Dr. Hiasat agreed to draft such a document based on the value statements listed in the June 24th meeting.

The curriculum group began to map out what children at Grade 2 do and do not know. Sources of information on this point were discussed: reading specialists, teachers, the Ministries of Education. It was agreed that these sources would provide the opportunity for confirming and revising suggestions made by the current participants. However, it was agreed that the current group should provide its best estimate of what content should be contained in the Arabic Reading Series.

The discussion ranged widely across such issues as knowledge of the alphabet, handwriting, writing styles, quotes from the Koran, educational philosophy, diacritical marks, plurals, duals, the Hamza, and root word families. It was agreed that Dr. Ibrahim would revise the initial draft of the curriculum goals in the light of the discussion.

CTW staff brought the groups back together for sharing about progress toward the end of the day. The Production Group had discussed social aspects of the programs: women, games, animals, jokes, songs, occupations which include women, places for live action films, and potential sets and characters to be used in production (repair shop). The Curriculum Group reported that it had begun the process of developing a framework, that it was focusing on Grade 2 with overlap to Grades 1 and 3, that it had identified some guiding principles (educational philosophy, MSA, meaning), and that it had begun an identification of appropriate reading skills (decoding, symbol/sound correspondences, Hamza, letter combinations, and so forth).

JUNE 27, 1985

The Production and Curriculum Groups met separately. In the Curriculum Group, CTW staff asked the group to consider the issue of sequencing goals across programs (early programs treat initial goals, later programs treat more complex goals) or within programs (every program contains some material on all goals). In previous work, CTW has used the latter strategy so that children could begin viewing at any time; a later show would not depend on viewing an earlier show; each show would stand alone. Subsequently, the partcipants agreed with CTW on this approach.

CTW staff presented some draft show outlines to the group for

consideration. These had been prepared by a consultant from the UN. After some discussion, the group agreed to identify some major content areas with the grade levels of the children and to disuss the percentage of the series that should be given to each grade level/content area. It was agreed that the following distribution should be used as a guideline.

Grade	Percentage of the Series
1	10
2	55
3	25
4	10

An attempt was made to develop goals and objectives in two broad categories: skills and strategies. Skills would include pronunciation, orthography, morphology, syntax, and lexis (vocabulary). Strategies would include problem solving, predictability, families of words, generalization, and abstraction.

In the afternoon session, the group generated lists of sight words phrases, and roots on which to build families of words.

THIS DAY ENDED WITH A STRONG FOCUS ON ROOT GROUPS AS A CENTRAL ELEMENT IN THE CURRICULUM STATEMENT.

JUNE 28, 1985

This day was spent in separate Production and Curriculum Groups. In the Curriculum Group, the participants continued to generate many families of words based on a single root group. Ways of improving the vocabulary of children were discussed. Criteria for selecting words to be included in the shows were discussed and listed. The cultural context statement was reviewed and revised.

In the afternoon session, a draft outline of goals and objectives prepared by the chief academic advisor was reviewed and discussed in light of the work thus far. It was suggested that the material did provide the basis for a draft "curriculum statement". It was agreed that a curriculum outline based on this work would be shared with the Production Group tomorrow.

JUNE 29, 1985

All participants met together to discuss the progress that had been made thus far.

The Production Group reported that they were considering the following sets, characters, and approaches:

- o Repair Shop - fixes anything: bikes, kites, etc.
  - Owner is lovable but knows everything (Art Carney/Jackie Gleason type character)
  - a young assistant
  - stress need to read to fix, to pick up
- o Coffee Shop - Mr. Clean type, plays musical instrument
  - health a possible theme
  - Cook is heard but not seen
- o Book Store - library, maps, records, magazines
  - owner a young woman
  - entertaining, fun, books are special
  - funny sketches, good singing
- o Everything Shop - only open 24 hours a day
  - things are not for sale
  - Older man, eccentric but wise
  - hoards things
  - fantastic memory, knows heritage
  - antiques but also modern things
  - grandfather/uncle image
  - a little cantakerous for texture
- o Limbo - a bare set that can be used for anything an Oasis, a street, kitchen
- o Characters - older woman, can't read or write, learns with children, a traveling character
  - shopowners
  - Slow man - children guess before he says
  - Guest Stars
  - Decoder Character - woman with white coat, gets answers from computer
  - Barber - bald with toupee, tells stories
  - Newscaster
  - Interviewer
  - Host for shows

38

- o Games - Wheel of Fortune (without wheel) - T shirts for prizes
  - Concentration
  - Magnetic Scramble Board
- o Short books
- o Live-action films

The Curriculum Group reported that it is making good progress toward the goals statement. Allocations of percentage of show times to be given to each grade have been made. Sight vocabulary lists have been gernerated. Lists of root words have been generated. The group moved to an adjoining room to review and discuss the specific lists that had been mounted on the walls on sheets of newsprint. The tentaive breakdown of the material into the five skill areas was described and discussed.

In the afternoon session, the Groups met separately. The Curriculum Group discussed ways of apportioning time to the five goal areas identified thus far. The following scheme was agreed upon:

Skill Area	Percentage of Show
A. Pronunciation	10
B. Orthography	20
C. Morphology	30
D. Syntax	10
E. Lexis	30

These percentages were then broken down for each subpart of the general content area, giving the following scheme.

	1	2	3	4	5	6
A. Pronunciation	2	1	1	2	1	
B. Orthography	4	6	5	5.5	2	.5
C. Morphology	8	8	7	7		
D. Syntax	1	5	3	1		
E. Lexis	8	5	10	2	3	2

AT THE END OF THE FIRST WEEK, THE CURRICULUM GROUP HAD DESIGNED THE GENERAL OUTLINE OF GOALS AND OBJECTIVES ACROSS SHOWS.

JULY 1, 1985

The Curriculum Group discussed linking the subparts of the general goal areas to design cohesive sets of objectives as the bases for show outlines. As objectives were discussed, sample materials were generated to illustrate the objectives. Examples of letters that differ only by the number and placement of dots were generated. Four sets of subtasks from the curriculum draft were generated as a basis for writing script outlines for shows.

The Curriculum Group worked together in designing one outline of a show using parts 1 and 2 from Morphology together with parts 1 and 3 from Lexis. Lists of sample words were generated to illustrate the objectives in each goal area. Using three related letters, the outline suggested starting with a song using the three letters, then proceed to the presentation of families of words using the letters. Similar words that differ in gender were generated. Words that differ in number were generated. Some sight words were listed for inclusion in the show outline. Words in the child's vocabulary were listed (wheel, bicycle, camel, donkey). Words using diacritical marks were listed.

In the afternoon session, Evelyn Davis (CTW Vice President of Community Educational Services) gave a presentation on outreach activities used by CTW to publicize programs and inform important audiences about developing projects. Her suggestions included films, booklets, Question and Answer cards, teacher's guide, materials for reinforcement, posters, comic strips, use of videotapes, and so forth. The participants discussed issues related to outreach, possible use by adults, possible airing at later hours, literacy programs in institutions, and so forth.

JULY 2, 1985

CTW staff continued the discussion and drafting of show outlines. A goal of approximately 65 sight words repeated frequently in the shows was discussed. The desired effect was to have the children attain mastery of fewer things rather than partial mastery of many. Show outlines based on the draft curriculum statement were reviewed and revised. Examples were generated to illustrate the points in the show outlines.

In the afternoon session, the particpants met with Joan Ganz Cooney, president and founder of CTW.

JULY 3, 1985

CTW staff encouraged the Curriculum Group to continue drafting show outlines. The Group was asked to generate more examples of word families, especially in areas of geography and health. They were asked to generate puns, lists of compound words, words related to modern life - space, computers, lasers, and so forth.

Word families based on structural patterns were generated -

___ a ___ A ___ a

___ A ___ i ___

Ma ___ ___ U ___

Ma ___ ___ a ___

___ i ___ A ___ A

with different root groups: KTB, DRS, HSB, RKD, MSD, and so forth. Critical skills to be stressed were again reviewed and examples generated: use of dots to distinguish letters, Hamza, diacritical marks, nunnation, alif maqsura, sun and moon words and the definite article, singular/dual/plural, and so forth. Examples of verb tenses were generated: past, present, imperative.

In the afternoon session, Brian Kean (CTW technical consultant) gave a presentation on the techniques used to produce some of the exerpts that had been shown to participants and about which the JCTV staff had questions.

JULY 4, 1985

CTW staff reviewed the projected agenda for the meeting in Amman later in the month (July 20-24). Dr. Ibrahim presented and explained the revised draft of the curriculum statement. The group was very positive in its reactions to Dr. Ibrahim's statement. CTW staff then presented a complete overview of how the shows and goals would be related across the series. A discussion of the relation of the Arabic Reading Series to Iftah Ya Simsin took place. It was agreed that the production team should avoid similarities to Iftah Ya Simsim. The series should be seen as distinctive.

The participants then reviewed the agenda for the Amman meeting one final time.

OVERVIEW OF THE AMMAN WORKSHOP: July 20 - 22, 1985

This meeting was sponsored by The Jordan Company for TV, Radio, and Cinema Production (JCTV). An overview of the Arabic Reading Series Project and the results of the initial planning efforts in New York City were presented to participants from Egypt, Morocco, North Yemen, and Tunisia. All sessions were conducted in Arabic with simultaneous translation into English for Non-Arabic speakers. Non-Arabic speakers spoke in English with simultaneous translation into Arabic available for those who desired it.

JULY 20, 1985

On the first day, July 20, Mr. Tareq Masarweh welcomed the particpants and briefly described the project. He introduced Dr. Mohammed Ibrahim, Director of the Language Institute at the University of Jordan, the chairman of the meeting.

Dr. Ibrahim reviewed the agenda briefly and indicated that all participants should have a copy of the Proposed Curriculum Goals Draft #3. This draft had been prepared in a meeting held in New York City between June 24th and July 4th by CTW, JCTV, and several other consultants.

JCTV staff stressed that the projected Arabic Reading TV Series was not intended to be a copy of the American Electric Company program. It is intended to be an Arabic program from the beginning - in content, format, and ideas. It is intended for the entire Arab world. It will focus on Arab countries. It will include themes based on Arabic books, songs, legendary figures. It will include comedy figures, sketches, and games. At the same time, it will include modern features - computers, space flight. It will present positive views of work as well as academic efforts, positive views of books and reading. It will include elements of both the rural and urban environment.

JCTV staff then showed a number of excerpts from the Electric Company as illustrations of themes and approaches used in the American program. These were a small sample of the excerpts that had been viewed in the New York City workshop and included a game, a sketch by comedian Bill Cosby, a Spiderman episode, a short book, and word rearranging sketch to derive meaning from a group of words when arranged in a sentence (Stay away from the wolf). A member of the CTW staff then explained the development of the shows viewed and gave an overview of the history of the Electric Company program - 130 shows were produced each year over a five year period.

CTW staff explained the general process they use in producing TV programs. The value of formative research was stressed as an important part of the development process. The positive results of

a summative evaluation conducted over a two year period of airing were presented. Other indications of the success of the series were reviewed -- the programs are still being aired even though the last segment was produced in 1976, and Electric Company is the most used in-school TV program even though it was produced for home viewing.

Participants commented on the points made and on the TV segments shown. Dr. Abdelkader Ezzaki, Morocco, commented on issues of sound/letter correspondences, decoding sequences, and use of the slow presentations to elicit student responses. His primary question was "will comprehension be built into the series?', "will the focus be primarily on decoding skills?". In addition, he asked about the place of "writing" in the series.

Dr. Ezzaki's questions generated a lively discussion on these issues. Although some sequences focused on decoding skills, the arranging words sequence (Stay away from the wolf) and the short book sequence were focused on the meaning of the words when arranged as a sentence or a series of sentences. It was agreed that comprehension is an important issue that will need further discussion. On the issue of writing, it was pointed out that the initial draft of the "goals and objectives" statement does not include writing. Discussions prior to this meeting had discouraged JCTV and CTW staffs from trying to deal with writing in Arabic because there are considerable differences across countries. A formalized style, similar to that used in newspapers, is the approach currently preferred.

Dr. Farid Abu Zeina asked about the projected viewing structure. Will children view one program per week, one per day, and so forth? In addition, has effort been given to trying to design any interaction and/or student reaction to the TV programs. This is one of the weaknesses of TV programs. It was agreed that interaction and student reaction should be given attention by the producers. Suggestions for asking questions that children can respond to, having the children sing along, having them guess what comes next, correcting the TV sketch (as in the camel drawing sketch) and so forth were mentioned. This was seen as more of a challenge than a problem. On the viewing schedule, this is open at present. However, there was a discussion of the need to balance frequent viewing so that the children develop a "habit" of viewing and sufficient variety in the programs so that frequent viewing does not become boring to the children.

Dr. Ghalal Al Rashidi of Egypt asked why the series was only projecting the production of 65 shows. In Egypt, the Electric Company in English has received a positive response. Dr. Rashidi predicted that the Arabic series would also receive a positive response. CTW staff explained that the projection of 65 shows was

43

simply a projection based on budget considerations. Dr. Rashidi also commented that the animation portions of the series are popular and suggested a strong emphasis on this component. JCTV staff explained that, once again, budget considerations may be a limiting factor in that animation is expensive to produce.

Dr. Mohamed Hashem Shahari of North Yemen asked about the integration of reading and writing. How will writing be treated? How will problems related to differences in writing style be solved? Dr. Ibrahim suggested that this issue be treated as the meeting progresses.

Dr. Daoud Abdo of Jordan (teaching at Kuwait University) questioned the coherence and continuity of the plans as he perceived them thus far. He commented on mistakes made in Iftah Ya Simsin and suggested that care be taken for the Arabic language during the production of the shows (Subsequently, all participants agreed that an on-site linguist was a must during the actual production of the programs). Dr. Abdo said he had treated these issues in a paper. Dr. Ibrahim asked Dr. Abdo to provide a copy of his paper to the working team. He also invited others to submit papers and publications relevant to the issues being discussed.

Dr. Ibrahim addressed the issue of sequencing within and across shows. Because children may view these programs at any time, there is a need to make each show independent. If programs were primarily intended as a sequenced series to be used in school, the approach might be differenct. But, given the intent of the project, it is important that sequencing take place within each program.

Dr. Kalil Elrian of Jordan asked about the grade level targets set for the project. How will the working team know that the shows are appropriate for the targeted children without some testing being conducted? CTW staff explained that funding agencies are generally interested in targeting groups having difficulties in school. Thus, CTW has usually targeted its programs toward children with difficulties, However, research shows that all children across the early grades profit from the programs even when the target is those having difficulty.

At 12:30 on the first day, the group moved to a formal discussion of the statement of goals and objectives. This 14 page document was provided in both English and Arabic translations. It was divided into four parts: Assumptions, General Guiding Principles, Curriculum Content, and Instructional Strategies. Dr. Ibrahim led this discussion. He asked the group to consider the 14 Assumptions. He called attention to the targeted group of children (Grades 1 - 2 - 3) noted in Assumption 7 and briefly summarized each ending with the assumption that the Arabic Reading

series will result in an overall decrease in illiteracy in the Arabic countries.

Dr. Fakri Tomalia of Jordan (UNRWA) questioned whether the series was aimed at too elementary a level. Others questioned the decision to not include material on writing. Some felt it is not possible to separate reading and writing. The working team responded that writing is not being ignored. They have not been successful in designing ways to approach writing that will not cause more problems than it solves. Dr. Abdelkader Ezzaki again raised the issue of comprehension and the concentration of the goals statement on decoding. Dr. Hikmat Judeh also asked about the need to establish in the children's minds the important connection between reading and writing. She also asked if Iftah was too heavy and whether or not the emphasis on comedy and entertainment could be increased.

In the afternoon session, it was noted that the last section under Lexis was missing from the Arabic version. It was also suggested that the last section of Syntax be moved to the section on cultural context - this suggestion was agreed to by the entire group. It was further suggested that the inclusion of content on health and disease be added as an important goal of the project. Zeid Fareez of JCTV responded that the working team will include content on health and disease as well as content on many other areas. They did not see it as necessary to add that as a goal. Dr. Daoud Abdo cautioned the group about getting too far afield and called their attention back to concentrating on reading skills.

Dr. Mohamed Shahari of North Yemen expressed his support for the curriculum statement and the general direction of the project. He noted that the use of TV was very good and had potential value for providing help for illiterate adults in North Yemen. Also, he pointed out that in North Yemen, some children do not go to school at all. Therefore, he would be pleased if the Arabic series focused on Grade 1 to provide instruction for these especially disadvantaged children. Dr. Ibrahim noted this sentiment but remarked that the series as now planned would devote only about 10% of its time to learning the alphabet.

Dr. Yehia El Ezzabi of Egypt expressed his appreciation for the effort by JCTV and CTW and his support for the focus of the series on basic reading skills. He expressed his support for earlier comments about aiming somewhat higher than is apparent in the curriculum statement and increasing the emphasis on comprehension. He expressed his view that the linguistic emphasis in the written document was too strong and suggested that more prominence be given to cognitive, cultural, and educational areas. He suggested more emphasis on vocabulary and structure. He suggested that certain lessons should be learned from Iftah. In

spite of the fact that Iftah included some artificiality, the children watched it. He stressed the need to make sure that the Arabic Reading series in not in conflict with local educational approaches, practices, and philosophy.

Dr. Ibrahim reinforced the concern that the TV series might be in conflict with any local cultures and asked the participants to suggest ways to insure that this does not happen. He expressed his hope that the participants in this meeting would help to see that this does not happen.

Dr. Mohamed Hashem El Hassan of Jordan suggested that focusing on decoding could be seen in a positive way. "Man is capable of reading a message" - this is the key concept to be learned by the children. What the child can pronounce can be sent as a message to be read. Words and sentences are the way messages come to us in the Quran from the prophets. Even in the area of technology, we learn through words. TV can be a powerful medium to get these points across. On the other hand, TV is not the best medium for silent reading.

Dr. Abdo Rabo Ahmed Garada of North Yemen expressed his concern about being sensitive to the educational philosophies in all Arab countries. Is this realistic? Do we even have accurate statements of the philosohies of all countries? Have the working team taken into account the UNESCO document on Arab countries? He suggested that all Arab countries have the opportunity to review the 5 test shows before all 65 shows are produced. Dr. Ibrahim agreed that the staff should review the UNESCO document.

Dr. Daoud Abdo expressed his agreement with an earlier comment on including more material on comprehension in the series. He did not support focusing on health but encouraged the use of common words needed by the childrn as much as possible.

Ms. Zeinab Yassin suggested that all participants check the UNESCO document and relay any input to the working staff.

At this point (3:15 PM), Dr. Ibrahim reviewed the feelings of the group. His assessment was that the reactions of the participants are generally positive, that there is more agreement than disagreement. The group appeared to accept this assessment. Dr. Ibrahim pointed out that the 11 General Guiding Principles in the goals document included expressions of most of the points made in the discussion.

Dr. Ahmed Hiasat of Jordan again raised the issue of insuring that principle #2 would be fulfilled. How can we insure that the programs do not conflict with the philosophy of education in any Arab country?

The problem of sequencing within and across programs was again raised. CTW staff explained that their experience shows that the audience builds up slowly over the first 2 or 3 months of the airing of the series. If children think they have to see every show, they will be discouraged. CTW's hope is that children will come back over and over again to view the programs. This view seemed to be accepted by the group.

Dr. Yehia El Ezzabi suggested that the group consider devoting several programs (3, 4, 5) to reviewing material. Introduce some way the children can test themselves to see that they have learned.

Dr. Riyad Al Marzouki of Tunisia supported the magazine type format and suggested that this format would be appropriate for including material about other Arab countries. He expressed some concern that the use of MSA may not be as straightforward as expected. He raised issues related to a distinction between "standard" and "classical" Arabic and to the area of "Arabicized" vocabulary. He suggested that a basic minimum vocabulary be produced and agreed to by all participants. Can Alecso and the Arab League play a role in this? There are differences in philosophies among Arab countries that may eventually lead to problems. For example, in Tunisia children continue in school whether they succeed or fail. Dr. Ibrahim acknowledged these problems. He said it would be an area on which the working team would have to attend to continuously. He suggested that a first step be made to at least avoid areas of difference that divide the Arab East and the Arab West. Do we want to let the children know about differences?

Dr. Hashem El Hassan of Jordan suggested that the working group keep in mind the potential for use both inside and outside of schools. This might influence the mixture of entertainment and educational instruction in the series tipping the scales toward educational instruction. Should a greater focus be given to making the shows more appealing in rural areas because of the potential of TV as an educational tool in those areas? Can the development of the vocabulary be based on a more logical development?

Dr. Ghalal Al Rashidi supported the decision to make each show independent of the others. He suggested that this approach might allow for other Arab countries producing one or more programs for the series. He expressed his opinion that writing should be included in the series in some way.

Issues for further reflection were raised toward the end of the meeting: how much emphasis should be given to including characters from the Arabic heritage, how much should children be used in the shows, how much weight should be given to comprehension in the series, what components of comprehension should be included,

will there be problems of diction differences across the Arab East and West. Dr. Ibrahim asked each particpant to prepare specific remarks ready for presentation in the morning on these issues and on other specific points in the goals and objectives document. Also, Dr. Ibrahim asked the representatives of each country to prepare a brief presentation on reading and writing in their country for the morning session tomorrow.

JULY 21, 1985

Dr. Ibrahim asked if there were any specific comments on the goals and objectives document. First, the curriculum content section.

Dr. Abdo encouraged a special effort at pronunciation of the language in the series. Dr. Maamouri supported this special effort and suggested that the traditional way of pronouncing should be carefully used throughout the series. Dr. Hiasat suggested that contrasting material for certain pronunciation problems might preclude this and might be necessary to clarify points for the children. Dr. Maamouri suggested that the word curriculum not be used. We are not designing a curriculum. We are helping the children with specific areas of reading. Except for a few points, the section on pronunciation seemed acceptable to the participants.

In discussing the orthography section, Dr. Rashidi of Egypt stressed that standard letters be used in all writing on the TV screen. Zeid Fareez, JCTV production manager, explained that the staff would try to strike a balance between differing styles of writing and would be uniform once the forms were designed. An example was distributed to illustrate the approach. Dr. Abdo supported this strategy. There was general agreement that an attempt should be made to avoid confusing the children - use only one form of writing.

In the discussion on morphology, the issue focused on whether the statements were goals to be reached or guidelines for the writers. Dr. Tomalia suggested that introduction of some points might confuse children. Dr. Abdo suggested that morphology should not be included in the goal statement at all. It might result in the inclusion of confusing details in the programs. He suggested that common vocabulary be presented to the children - plurals, active and passive verbs - so that the child will learn in a natural way. Dr. Ibrahim acknowledged that this is an important point in many areas. The child should not need to know why? However, we can not overlook morphology. We may need it for the designers. How can we teach if we do not know the morphology?

Dr. El Ezzabi supported Dr. Abdo's point on this issue. The teaching in the series should be indirect without details. Dr.

Maamouri suggested that morphology does help the child in reading. The TV series should encourage the children to read. Proper words should be used. Proper grammar should be used.

Dr. Hiasat agreed that this issue is better directed to the writers. One of the JCTV writers explained that even experienced writers use common errors in their writing. Such common mistakes should be focused on to help the children write correctly. Dr. Hikmat Judah suggested that the group remember that the series is not an alternative to school. It should not try to do too much. Concentrate on proper sounds. Expose the children to the material in entertaining and fun ways.

Dr. Abdelkader Ezzaki supported Dr. Abdo's suggestion that morphology be downplayed. He suggested that there is consensus in the group on this point. Morphology will not be taught as such. BUT, will the series include paragraphs, structured groups of sentences to be read? Dr. Ibrahim responded that the shows would include sentences, so there would be structures in the programs. The challenge is to design specific ways to present the structures without elaboration.

Dr. Tomalia supported this view and suggested that a simple guiding principle be that all material should be taught in a "casual way". Up to the 4th grade, grammar is "casual" to the children. Give many examples; do not teach grammar intentionally. The curriculum document is for the writers and producers.

Dr. Garada also supported this view. Many common language mistakes can not be dealt with in Grade 2. But, give examples of correct usage. Ms. Yassin also supported this point. She suggested focusing on the motivational objectives. Encourage the children to read books. Dr. Rashidi also supported this point. The children learn spontaneously. Give no details about morphology. Do not try to explain WHY!

Dr. Ibrahim thanked the group for good insights on the morphology section and asked for points on the syntax section.

Dr. Tomalia supported the first point in this section. The children should learn that sentences can begin with nouns or verbs. It makes a difference and child should be familiar with both and be able to distinguish them. It was agreed that this is an important point and that the series should contain examples - not explanations - but numbers of examples.

Dr. Abdo suggested that section 2(iv) is so important that it should be listed as a separate goal. Dr. El Ezzabi supported this srtatement but stressed that opportunities must be presented for the children to discover the rules without being told what they

are. Dr. Ibrahim stressed that this is not just an issue of pronunciation - how to say "thank you" - but when to say "thank you". The children can learn this.

In discussing section E, Lexis, Dr. El Ezzabi pointed out that the objectives in section 3 focusing on groups of related words should be used to generate very many examples for the children. Dr. Abdo suggested that the general statements like synonyms and antonyms are appropriate for the series, but the producers should use examples from common words that the children can understand. This is critical. All agreed that effort should be given to gathering lists of words suitable for the programs. Sources were suggested including publications of ALECSO and available academic sources. Participants were asked to send to Dr. Ibrahim any potential resources they possess, can obtain, or can reference. Dr. Abdo cautioned the group to be aware that many studies deal with printed materials. They are not necessarily related to the children's oral vocabulary.

Dr. Garado pointed out that Iftah did introduce the children to new words. He suggested using synonyms - a word the child knows related to a new word. Increase the difficulty of the words in some cases. Dr. Hashem El Hassan supported this suggestion and pointed out that mass communication has a powerful effect on children. They will learn many words in the spoken form if they are introduced to them. Therefore, the series should introduce new words. Dr. Ibrahim supported this view but repeated a previous point that words be introduced in natural ways.

Dr. Ibrahim then raised the issue of "language rules" and the extent to which the children should learn the technical names such as "adjective" and so forth. Dr. Tomalia suggested avoiding any generalizations about rules. Give many examples of important structures that exemplify rules. Let them learn from seeing. Do not make the series into a classroom. Ms. Yassin supported this view and suggested that children will learn very much just by seeing good examples. Dr. Farid Abu Zeina supported this view. Give enough examples of a single language rule to help the child infer the rule. But don't state rules in the series. Provide enough examples so the child can use induction in a natural way. Dr. Ezzaki also supported this view and stressed the concept of practice. He also cautioned against trying to include too much in the programs at the expense of practice.

Dr. Hashem El Hassan asked about the inclusion of punctuation in the series. Dr. Ibrahim suggested that punctuation not be stressed in the programs. Dr. Abdo supported this view. No further discussion was given to this topic.

Dr. Hikmat Judah suggested that there was too much focus on

the word teaching - should we teach this or that. To stress the non-formal character of the programs and the fact that they are to be fun for the children, she suggested avoiding use of the word teaching.

At this point, Dr. Ibrahim asked the group to give some ideas about a possible title for the series. A number of possibilities were suggested:

Let's Read	Happy Readers' Club
My Beautiful Language	Happy Hours (Happy Momen s)
Let's Play	Let us talk together
Colors (Language Colors)	Come on, Let's talk together
Read and Play	Come on, let's be entertained
Joy	Children's Garden
Colors and Tunes	Message of Ideas
Wonderbox	Rainbow Garden
Magic Carpet	Let's be merry
Flying Carpet	Imbor...Springs...Senabi (?)
Entertainment Club	Friends and Brothers
Pure Springs	Hope

After a period of brainstorming, participants were asked to provide three suggested names in writing.

At this point (12:35 PM), participants were asked to present brief overviews of reading/writing in their countries.

(1) JORDAN - texts (Grades 1 - 2) in reading were passed around
- pictures, words, letters (Grade 1)
- present, past, perfect tenses (Grade 1)
- punctuation, adjectives, nouns, poems, songs (Grade 1)
- Grade 2: stories, dictation, environment
- In general, aural and visual discrimination in the early grades, learn skills through pictures

(2) TUNISIA - reading is based on a "global" outlook
- sentence is the basic unit
- stress on vocabulary
- use exercise books for writing
- strong encouragement to read books
- stress on public libraries for children

(3) EGYPT - local environment is basis for texts
- technical focus
- religious content is included
- grade 1: concentration on word recognition
- grade 2: silent reading
- grade 3: oral reading; increase skill in silent reading

(4) MOROCCO - mechanics of reading: sentences/words/letters
- sentence (or above) is the springboard
- stress on functional vocabulary
- pictures
- structural patterns
- serialization and sequencing

(5) YEMEN - strong Arabic emphasis
- global
- definitions
- applications

In the afternoon session, JCTV staff gave an overview of the sets they were considering for inclusion in the programs:

(1) Repair Shop - What is the thing to be repaired? Shoe,watch
- What is wrong with it?
- How is it to be repaired?
- When will it be ready?
- Where is it to be delivered?

(2) Bookstore - young woman in charge

(3) Restaurant - the Cook is heard but not seen
- famous guests come to eat here
- Alladin lands here

(4) Place that sells everything - handicrafts
- carpets
- ceramics
- Mother of Pearl items
- run by an old man - wise

(5) A Contest - 2 teams of children
- a tree with all the letters of the alphabet
- the capital of an Arab country
- children take turns selecting letters
- spell out the capital

(6) Game - Concentration
- 18 squares on a table with matched pairs

At this point, one of the participants asked about the costumes that would be worn in the series. It was suggested that visits to a number of Arab countries be shown in the programs and that local dress be shown. JCTV staff explained that they were intending to use modern dress except when the material called for special dress, short books, characters from the heritage, and so forth. Dr. Garada of North Yemen suggested that the dress should

be what is most commonly worn. JCTV staff projects using a special line of clothes across the shows.

One participant asked if suggestions for good children's comedians had been made and if any consideration had been given to treating the phenomenon of poverty in the series. One name mentioned was "Drayd La'am" (?). It was suggested that star comedians should also be appealing to adults. A concern was expressed that using Stars might not be as beneficial as using actors and actresses the child can identify with.

JCTV staff explained that they hope stars will attract an audience. They will not be intended for imitation by the children necessarily. JCTV intends to have children participate in the film segments in the various Arab countries.

Dr. Shahari of North Yemen suggested that instead of trying to cover all Arab countries an attempt be made to integrate costumes, customs, and Stars representative of the four Arab regions.

Dr. Ghala Al Rashidi of Egypt asked who would write the scripts for the shows. How will this decision be made? JCTV staff responded that participants in the meeting were expected to decide what would be included. Then, writers would write scripts to go with the material. This would be done for the five field test shows. Then, representatives of the countries would review the scripts and suggest revisions if needed. Dr. Rashidi asked if the writers have been identified. JCTV explained that writers had been identified. They would work with a research team which would provide the input for specific sketches.

Dr. Rashidi asked if a hero comparable to Spiderman had been suggested. JCTV responded that such a character had not been decided upon and input was needed to create such a character. Dr. Marzouki suggested a type of "Space Sinbad" as a possibility.

The group was asked to consider the agenda for the next day when the meeting would break into the two groups: a production group and a research component group. What should the research group focus on and aim at as a goal for the day? The following were suggested as areas to attend to:

- o a review of the CTW model
- o a review of the "Writer's Notebook" - background, examples,
- o a review of the "Curriculum Notebook" - flesh things out, set guidelines, specify details

- o identify resources, ALECSO, "unified word list", books referred to in the meeting, syllabi of the Arab countries
- o establish a list of standard sounds
- o exclude words with two possible pronunciations
- o comprehension beyond the sentence level

The meeting adjourned at 6:05 PM.

JULY 22, 1985

The Research Group met and discussed options for proceeding:

- o small groups - each take an area of the curriculum statement, or
- o work together as one group.

The group decided to start out working together and divide into groups after critical areas were identified.

The curriculum content area was discussed first. It was decided that the five sections under Phonology are satisfactory. In Section B, Orthography, it was suggested that writing styles be definitely limited to one or two styles. It was suggested that learning the alphabetic order be moved somewhere else in the paper to stress the point of order (in using a dictionary) rather than orthography.

Dr. Maamouri of Tunisia suggested that the group come to a decision on whether total vocalization of diacriticals should be a guiding principle for the series rather than a phasing out of diacriticals. Dr. Ezzabi spoke in favor of a gradual phasing out. within programs. Dr. Ibrahim also favored a gradual phasing out. Dr. Maamouri made the point that some diacriticals have grammatical functions and those are important for the children to learn at this early age. It was agreed that distinctions should be made between diacriticals used

- o as a guide to pronunciation, and
- o as an indication of a grammatical function.

Dr. Daoud Abdo supported this distinction and agreed that some diacriticals should remain throughout the series and the programs. Dr. Ibrahim suggested that diacriticals used to distinguish

ambiguous words should also be used in all cases. The group agreed that if there is any ambiguity when a diacritical is not used, use it. On the other hand, leave them out when they are clearly not needed.

It was agreed that the punctuation and writing sections would be worked on further in a small group.

In discussing Section C , morphology, it was again agreed that the statements are guidelines for producers and writers. Everything will be presented by examples. The children will use discovery and induction to learn the rules.

In discussing Section D, Syntax, it was suggested that point #4 is really not Syntax. But it is important. It was suggested and agreed that point 4 of Section D should be a complete section on its own, Section F. On the other hand, an additional section is needed on sentences. The children should see and comprehend sentences. After some discussion of simple, compound, comples sentences, it was suggested that several simple sentences integrated into stories should certainly be included. Also, complex sentences with familiar clauses in them should be included. Nothing too complicated. It was noted that this objective would be included but reviewers would be cautioned to keep a careful eye out for complicated sentences.

In Section E, Lexis, the point made previously was again stressed - it is not so much the frequency of words that is to be used as a criterion for including them in the programs but rather familiarity to the children. It was agreed that E4 (lexical variations in words) should be an objective. Fruits and vegetables are suggested. The group was asked to suggest other words that should be added to the list. It was pointed out that it will be a challenge to come up with fun and entertaining ways of introducing the use of dictionaries and other reference material into the shows.

At 11:45, the group decided to break into four groups for more detailed work in the areas of (1) pronunciation and orthography, (2) morphology and syntax, (3) Lexis, and (4) comprehension. The comprehension group was observed during this session.

The comprehension group began by brainstorming ideas about subskills included under comprehension:

- o matching words with pictures
- o using context to extract meaning (sentences)
- o recalling information to indicate understanding

- o translating - another form of the same thing
- o executing an action as a sign of understanding a direction
- o guessing a letter left out of a word
- o guessing a word left out of a sentence
- o classifying things into categories (animals/fruits)
- o correct punctuation and meaning (?, !)
- o arranging sentences to make meaning in a paragraph
- o critical reading: He climbed the TREE and ate the FRUIT.
  He climbed the FRUIT and ate the TREE.
- o honeybee vs palm tree -- only one dot makes the difference
- o cause and effect
- o simple inferences
- o matching sentences: Question -- Answer
- o puzzles, riddles, games, crossword puzzles

At this point (2:00 PM), the group agreed to break for lunch. Dr. Abdelkader Ezzaki agreed to provide a summary of the group's meeting for the afternoon's large group meeting.

In the afternoon session, a member of each group reported on its work.

Dr. Rashidi of Egypt reported that the group working on pronunciation and orthography agreed that the goals and objectives document needed only some clarification of details. Further attention needs to be given to point #5 under orthography - the use, significance, and/or function of punctuation.

Dr. Daoud Abdo reported on morphology and syntax. The group had generated examples of simple and more completed sentences for the possible use in the programs, of sentences beginning with "if", of adjectives that would be appropriate for the children, and of simple phrases.

Dr. Abdelkader Ezzaki reported that the group working on comprehension had generated a list of subskills to be used to supplement the goals and objectives. Some of these will overlap

56

with the vocabulary goals and objectives.

- o words and meanings, word matching
- o sentence meaning
- o word meaning in context (derive meaning from context)
- o recalling information from print (remembering)
- o translation (paraphrase, act out what is read)
- o extrapolation/classification (apples, oranges..fruits)
- o guessing (missing letter in word, missing word in sentence)
- o sequencing (time, and so forth)
- o cause and effect
- o inference
- o critical reading (plausibility)
- o main idea (three sentences perhaps)
- o puzzles, riddles, games
- o expressive reading (punctuation clues)

Dr. Fakri Tomalia suggested a further point: completing a story by predicting the end of the story.

Dr. Marzouki of Tunisia reported that the group working on vocabulary had generated examples of additional phrases: Thank God, Oh God, Almighty God, and so forth. They drafted an initial list of words familiar to children, words related to the family, to food, to health, words that sound close to each other, and words that differ in only one dot. Dr. Abdo suggested including such phrases as speed up, slow down, watch out, and so forth.

Dr. Ibrahim closed the session so that he could prepare a summary report for the entire group of participants in the final session of the workshop. He expressed his thanks to the working groups, asked them to let him have their written notes if possible, and indicated that their efforts would be a very significant contribution to the project.

Dr. Ibrahim made a final report to the entire group (4:45 PM) in which he highlighted the following points that had been made by the participants during the course of the workshop:

- o everything should be presented to the children in as indirect way as possible;

- o there must be a good usage of MSA - clear enough so that children can extract content and rules by themselves;

- o care must be taken to insure that material relevant to an objective is sufficient and representative (avoid overgeneralization and undergeneralization);

- o good actors are a necessity - able to speak in good MSA with no accent;
- o vocabulary included must be chosen carefully, according to criteria agreed upon;
- o everything must be at appropriate levels of comprehension for the targeted ages and grades;
- o programs must be acceptable to all Arab countries, special care must be given to vocabulary in this area;
- o be aware of work of UNICEF/ALECSO, include values, but keep main objective in sight - reading skills;
- o be aware of vocalization/devocalization issue, as a general guideline: keep diacriticals throughout the series when use is important, phase out/leave out (???) when absence will cause no problem for the children;
- o reduce stress on phonology in the goals and objectives, use the "NASKH" style in orthography; and
- o incorporate comprehension into the series taking into account the 15 or 16 ideas generated in the workshop.

In response, JCTV staff suggested that writing be "caligraphy", "NASKH". It was agreed that the goals and objectives statement and other materials generated at the New York City meeting would be revised in light of the Amman workshop. In producing film excerpts for the series, JCTV would contact TV studios in other countries.

The final two issues attended to were: a title for the series, and a tentative date for the next workshop/seminar. It was agreed that input had been given for the title and that the final decision should be left to the producers. November 16 - 18, 1985 were agreed upon as the tentative dates for the next meeting of the group.

RESEARCHERS' MEETING: JULY 23 - 24, 1985

CTW and JCTV had planned a meeting subsequent to the Amman seminar/workshop to use the results of the seminar in designing and writing program outlines and scripts for a number of programs, to discuss the plans and procedures of the projected formative and summative plans with at least one representative of Egypt, Morocco, Tunisia, and Yemen. The intention was for the participants to work in two groups: a production group (writing outlines/scripts) and a research group (discussing details of the goals and objectives, the formative evaluation, and the summative evaluation.

On the evening of July 22, CTW staff met and mapped out a tentative agenda with July 23 focusing on formative research and July 24 focusing on summative research.

On July 23, the research group met and began discussing formative research. Dr. Keith Mielke of CTW presented an overview of formative research findings that had been provided to the participants and suggested a set of questions that representatives of each country might address to give an idea of what kinds of data might be available in each country, how data might be obtained, and what the constraints for doing formative and summative research might be in each country.

Dr. El Ezzabi of Egypt indicated that Egypt has universal TV, color sets are common, and many families have more than one set. TV is state-owned. All channels are controlled by the state. Children's programming is usually provided for one to one and a half hours each evening. There is no particular educational emphasis in the programs. They have two channels and expect to add a third in the Fall of 1985.

Dr. Abdelkader Ezzaki reported that in Morocco TV is universal in the urban areas but not in the rural areas. There is one national channel which broadcasts in Arabic and French. There is a second state run channel which carries programs from Egypt, France, and the United States. There are children's programs related to the school curriculum directed at children between the ages of 5 and 7. There are no TVs in the schools. In some areas, there is no electricity. There may be some in private schools. These schools receive subsidies. It may be possible to conduct research in these schools. There is some spreading of the use of video-cassette players. These may be a possible source of showing the Arabic Reading Project programs.

Dr. Mohamed Maamouri indicated that in Tunisia TV is universal. The government considers their availability important and supports their development, purchase, and use. TV has an important political and social position. Purchase of a TV can be deducted from income tax. Viewing is not controlled by parents. Programs like Dallas/Dynasty are viewed. Programs for children (ages 5 - 7) are shown during the evening for about one and a half hours. There is only one channel. The children liked Iftah. They were not aware of any language problems related to the Gulf.

In Jordan, children's programs are shown in the evening for about one and one half hours as in other countries. There are two channels, JTV and JCTV. TV is relatively universal. There are TVs in private schools.

At this point, the group decided to consider summative research issues if they seemed relevant to the discussion. Dr. Richard Murphy of ETS distributed samples of assessment instruments and an outline of a design used in the evaluation of the Electric Company. The group was asked to consider ways that contacts might be made in the Arab countries to arrange for gathering data in the formative and summative research components of the project.

Dr. Maamouri of Tunisia suggested making contacts with the Director of Primary Schools. He suggested AMIDEAST as a group to assist in making contacts and offered his own assistance as well.

Dr. Abdelkader Ezzaki of Morocco suggested two options for Morocco. Establish contacts with the Ministry of Education through the local AID office and/or work directly with the University of Rabat. In either case, the Director of Primary Schools is the key person to meet with to arrange for data collection in the schools.

Dr. El Ezzabi of Egypt suggested making contacts with the Ministry of Education directly with covering letters from the Ministry of Education of Jordan.

The representatives of North Yemen were not able to stay for the meeting, but Dr. Mohamed Shahari indicated his willingness to assist in arranging for data collection in North Yemen if needed.

Dr. Hiasat of Jordan had already suggested meetings of ETS personnel with personnel at the Jordanian Ministry of Education. These were scheduled for July 25th with the assistance of Ms. Jenine El Tal of AMIDEAST. They are reported on in a later section.

In the discussion of the summative evaluation, it was agreed that assessment should be aimed at two levels: (1) Grades 1 and 2, and (2) Grades 3 and 4. It was also agreed that once the series is aired it will be difficult to find children who are not viewing the program. This is a critical point in evaluation. An estimate of what the children would be like if they had not viewed the programs is needed in order to estimate the impact of the programs on those who have viewed them. The original ETS plan was to implement designs that would provide a number of estimates for performance under the condition of not viewing the programs. To be a valid comparison, it is important that the children used to obtain the estimate be as similar as possible to those who do view the program. Given these facts, it was agreed that a very serious effort should be made to gather information on children during the year before the series goes on the air, that is, during the school year of 1985 - 86. Because we may want to study the performance of children after they have viewed the series once, we need to project ahead and estimate when that would be in 1987. A reasonable guess

is that the series will begin at the end of 1986 or in early 1987. Assuming a run of about 13 weeks, we will want to gather information in April/May 1986. Then, we will be interested in what the impact might be with more extensive viewing. It was suggested that another data collection point might be in November 1986.

It was suggested that further consideration be given to gathering data beyond that focused on the goals and objectives of the series to allow for valid interpretation of the results obtained from the analyses of the data.

It was agreed that the formative and summative research should include both cognitive and affective characteristics of the children, that matched groups of viewers and non-viewers should be included in the research if possible, that mobil units should be considered as one way of reaching areas where the children can not view in their homes and setting up a more experimental type design.

JULY 24, 1985

On July 24th, CTW and JCTV revised the agenda to focus the efforts of both groups on the development of more detailed outlines for the five shows projected for the formative research component of the project. CTW staff explained that the production group needed more detailed input on the goals and objectives. She indicated that they were considering three areas for each show: (1) linguistics, (2) pedagogy, and (3) production techniques. They needed specific examples of the objectives in the show outlines that had been developed. In addition, the group was asked to articulate the reason why the objective was important. It was felt that this would help the writer and producer to design ways of presenting the material.

The group was asked if it thought the best way to proceed would be to divide into five groups and each take one show. Dr. El Ezzabi of Egypt suggested that they first try one show together to make sure everyone understood what was expected. The group began working on Show # 1. They generated lists of sun words and moon words. Dr. Hasat wrote these on large sheets of "newpaper print" for common viewing. These were intended as examples of the first goal listed in Show #1 - the use of the definite article Al with sun and moon words. The second objective was to show reading as a source of joy through pronunciation of letters and words. This was considered self-explanatory.

The group then focused on objective 2 under morphology - the Hamza. CTW staff asked for an articulation of exactly what the issue is with the Hamza. Why is it important? Is there a special problem in learning its use? Some examples were given.

The group moved onto objective B1, Alif Maqsoura, and B2, recognition of short vowels. Examples were given. It was agreed that B4 could be eliminated because it was really a writing issue rather than a reading issue. At this point (1:15), the group broke for lunch.

After lunch, CTW and JCTV staff suggested that the group break into small groups and work on separate show outlines. One group (Dr. El Ezzabi, Dr. Abdo, 2 JCTV staff, and one CTW staff member) continued working on Show #1. On objective B5, punctuation, it was agreed that the programs should include the following six punctuation marks (""/,/./:/?/!). There was disagreement on whether to include the semicolon. Hyphens were not to be included.

It was agreed that C4 and D1 should be considered together. It was suggested that a pattern be selected and presented indirectly to the children.

For objective E1, some familiar words were indicated. The existence of the lists from previous meetings were indicated as sources for these. For E2, expand MSA vocabulary, very important words like NOT, WHO, WHY, WHAT were suggested for this show. One of the JCTV writers drafted a short story of a bird flying over the lake and seeing a fish in which he included all the new MSA words that had been mentioned. This illustrated the general approach that JCTV intended to use with the writer using the content provided in the script outline.

For objective E3, word families, the group referred to the many sets of word families that had been generated in earlier session. Objective E5 and E6 were discussed briefly. A source of further input on these was mentioned: "Towards Teaching Arabic Functioning."

Finally, the fact that a section F, comprehension, needed to be taken into account was mentioned as the group finished.

MEETING AT THE MINISTRY OF EDUCATION JULY 25, 1985

On July 25th, Dr. Richard Murphy (ETS) met with members of the Ministry of Education and explained the preliminary plans that ETS hoped to implement in the summative evaluation of the Arabic Reading Project. Ms. Janine El Tal of AMIDEAST arranged the meeting with Dr. Abdelatif Arabiyat, Undersecretary of Education. Dr. Arabiyat asked Dr. Ahmed Bishayri, Director of Examinations, Dr. Izzat Jaradet, Director of Statistical Information, Dr. Ali Abdel Razek, Director of Curriculum and Technology, and Ms. Nabila Wehbeh, Director of Public and Cultural Relations, to join us in this meeting.

Dr. Murphy explained that Educational Testing Service (ETS) had been asked to conduct an independent evaluation of the project. In this visit, ETS wanted to learn more about the educational system in Jordan and investigate the possibility of working collaboratively with the Ministry of Education. Dr. Murphy indicated that he had already spoken with Dr. Ahmed Hiasat about this. Dr. Razek indicated that ETS should continue to work with Dr. Hiasat as a liaison with the Ministry of Education.

Dr. Murphy asked if it would be possible to obtain written descriptive information about the schools in Jordan. Dr. Jaradet indicated that he would provide such information after the meeting. Dr. Murphy indicated that he would like to investigate the possiblity of gathering data from the children in a sample of schools as early as April/May 1986 so that benchnmark data would be available for evaluating the impact of the Arabic Reading series when it is broadcasting. Dr. Arabiyat indicated that a plan should be forwarded to the Minister of Education, H. E. Dr. Abdul Wahab Al Majali, Deputy Prime Minister.

Dr. Jaradet provided copies of complete descriptions of the educational system with very detailed tables giving the descriptive statistics available.

In the Curriculum and Technology department, we met with Dr. Hiasat, Director of Curriculum: k - 12, and four members of his department: Mrs. Bahjeh Muheisen, Mr. Mohammed Said Mukbel, and Mr. Khalil Qara'in, all members of the Department of Testing. They were interested in the ETS plans to gather data from children in 1986 and 1987 and in participating in the summative evaluation. They provided copies of the curriculum objectives in reading and copies of the reading texbooks in the early grades. They explained that they had designed and built a nationwide test in reading appropriate for the third grade. Two of the group had participated in the ETS summer courses for foreign scholars.

It was agreed that ETS would write to the Ministry of Education and continue moving toward establishing a working relationship with the Ministry of Education.

MEETING AT YARMOUK UNIVERSITY, IRBID JULY 27, 1985

Dr. Keith Mielke (CTW) and Dr. Richard Murphy (ETS) visited Yarmouk University to explain the Arabic Reading Series Project and to investigate possible resources for the formative and summative research components of the project. Dr. Farid Abu Zeina, Director, Educational Research and Development Center, arranged this visit. Dr. Abu Zeina, consultant to CTW, participated in the Amman workshop/seminar. Two key objectives of the visit were to see the facilities and equipment available at the R&D Center and the

67

experimental school connected with the University and to meet with the principal of the experimental school to explore including the children in the school in the formative and summative research.

Dr. Abu Zeina showed us the facilities, the TV production and viewing equipment, and other educational technology available at the Center. The Vice President, several members of the administration, and the principal of the experimental school met with us over lunch and discussed the University, the Arabic Reading Project, and the general formative and summative research plans.

After lunch, Dr. Nazer Malk, Director of the Experimental School, showed us the school facilities and explained the programs at the school. In general, there are two separate programs: one in Arabic (approximately 500 children in Grades 1 - 12) and one in English (approximately 100 children in Grades 1 - 12). The school is coeducational, unusual in Jordan, with class size of 25 - 30 children.

Dr. Malk indicated that the children are hardly ever absent, teachers are probably better than average (they receive tenure after 4 years), they are more supervised than in other schools, they have higher salaries in general, their facilities are better than average, and the children have well-structured activities. The school has a Technical Committee (University personnel) which provides input to the principal and conducts evaluations of the school operation.

Dr. Malk is very interested in participating in the research effort planned in the Arabic Reading Series Project.

MEETING AT THE UNIVERSITY OF JORDAN JULY 28, 1985

Dr. Keith Mielke (CTW) and Dr. Richard Murphy (ETS) visited the University of Jordan to explain the Arabic Reading Series Project and investigate possible resources for the formative and summative research components of the project. Dr. Kalil Elraian, Director, Center for Testing and Measurement, arranged this visit. Dr. Elraian, consultant to CTW, participated in the Amman workshop. The objectives of the visit were to see the facilities and equipment available at the University and the experimental school connected with the University to explore including the children in the experimental school in the formative and summative research.

Dr. Elraian introduced us to the Director of Public Relations, Mr. Walid Morahly, who gave an overview of the University and showed a film about the history and development of the University.

All technological equipment is centralized through the Educational Technology Center (ETC). The Director of the Center

showed us the very sophisticated and up-to-date equipment available for videotaping and production. We met with other administrators of the University and explained the Arabic Reading Series Project and the general plans for formative and summative research.

Dr. Kalil Elraian showed us the Center for Testing and Measurement and shared with us information about some of the research that had been conducted. Dr. Elraian also shared with us copies of assessment instruments that they had used in their research with young children. These materials were similar to those used in the ETS Electric Company evaluation.

Dr. Farouq Elrousan, Department of Special Education, drove us to the University of Jordan Model School where we met with the principal and toured the school. The school has excellent facilities for showing TV programs to the children on videotape and observing their reactions through one way mirrors.

The principal informed us that the first grade teacher used programs from Iftah Ya Simsim in her classes during the year. She said she would be pleased to participate in the study of the new Arabic Reading Series Project.

IV. APPENDICES

There are five appendices given in the following pages. Each has been set off by a separate introductory page.

Appendix 1. Goals and Objectives Statement (July 1985)

Appendix 2. Cultural Context Statement

Appendix 3. ETS Materials

Appendix 4. Sample Statistical Data on Education in Jordan

Appendix 5. Sample Test Materials

Appendix 1. Goals and Objectives Statement (July 1985)

DRAFT # 3

PROPOSED CURRICULUM GOALS

ARABIC READING SERIES

I. ASSUMPTIONS

1. The overall aim of this program is to apply a variety of techniques and approaches to the teaching of reading through the medium of television. Furthermore, the present program is a form of non-institutional education which seeks to supplement and complement school curricula in the Arab countries. Seen in this light, the program is not designed to compete in any manner with existing reading curricula in the Arab countries, but will aim at reinforcing and enriching the reading abilities of Arab children by emphasizing skill-building and developing successful strategies for coping with written standard Arabic.

2. Since this program is by definition a reading program, other language skills cannot and will not be given equal attention or emphasis. This is necessarily so owing to two major constraints, namely, limitations on time (the present plan is to produce 65 half-hour shows), and the nature of the medium (TV may not be the best medium for teaching writing skills). However, the preceding statement does not mean that some other language skills (e.g., listening comprehension, basic writing skills, pronunciation) will be completely ignored. In fact, some of them will be actively taught, whereas others will be inevitable by-products of the series.

3. Because of the considerations stated in the preceding paragraph, and in particular, because of constraints imposed by the nature of the medium, the teaching of reading comprehension beyond the sentence level will be dealt with only indirectly and casually. This limitation of the general goal of the program does not mean that we in any way belittle or undervalue the importance of reading comprehension at the paragraph level and beyond which, after all, should be the ultimate goal of any reading program; rather, it means that the TV series will focus primarily on those early and basic reading-skills without which the larger and more central goal would be impossbile. It is the hope of the program team that this series will equip young school children with the skills and strategies needed to make them successful readers in subsequent school years.

4. Although the focus of the program will be on reading, every attempt will be made to relate reading to other school subjects since successful reading is an essential pre-requisite to success in other school disciplines and since without success in reading, educational progress in general will be retarded.

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5. The program is not intended for any one Arab country or for a specific group of Arab countries. Moreover, the program will not be designed to coincide with the needs or curricula of a certain country or group of countries but will attempt to be equally useful to all Arab countries at one and the same time. This will be ensured by a number of measures including the appointment of academic and research advisors from many different Arab countries and by undertaking some research and testing activities in a reasonable number of these countries.

6. On the basis of experience gained from similar programs in other countries the program team has every reason to believe that television is not necessarily, as is widely held, a uni-dimensional medium of teaching. With proper planning and production strategies and techniques, it is quite possible to turn television into a two-dimensional medium of instruction with which the learners can interact in a meaningful fashion and through which they can be active as well as passive participants.

7. The target group for whom this program is intended includes children in the first, second, and third grades. Among this target population, however, the program will focus on second graders with special attention given to early second graders (Section II, Item 11 below).

8. Special attention will also be given to children with reading difficulty. It is understood, however, that this will be done without in any way sacrificing or compromising the needs and interests of average and high-achieving students.

9. The vast majority of target children will have been exposed to some form of literacy teaching and will, therefore, know some of the letters and other writing symbols and conventions. Some of the children will thus need to be taught some or all of the Arabic letters and other writing symbols and conventions, whereas others will need further practice with what they already know.

10. Consequent to the statement in (9) above, it is assumed that most children in the target group will be familiar with such notions as:

    a. Writing symbolizes spoken language.
    b. Written language can be spoken or verbalized.
    c. The sequence of Arabic writing is from right to left.
    d. Some letters connect to a preceding letter only, whereas others connect to a preceding and/or a following letter as well.
    e. The shapes of most letters vary in a manner determined by their position in the word.
    f. Blending letters into words and decoding or analyzing words into their constituent letters.

11. Familiarity with items (10a - 10e) above should not be construed as implying mastery of these items. Some children will still have difficulty with items (10d - 10f) in particular.

12. Experience and research findings from similar programs in other countries indicate that this type of program can be successfully utilized in adult literacy programs as well as in programs designed for teaching the language of the series to speakers of other languages. In this way, it is hoped that the series will present interesting learning material to the learners in a variety of new and interesting contexts and situations.

13. It is also hoped that many of the techniques and approaches adopted for presenting language material to the learners will be adopted or emulated by teachers of Arabic in the target countries. If this expectation materializes, as it has in similar situations outside the Arab countries, the program will contribute to the improvement of teaching methods in reading instruction and to teacher education and training in the Arab countries.

14. In the light of the preceding statement, we are able to assume with a high degree of confidence that this program will contribute to reducing the rate of reading failure in Arab schools. This contribution will in turn reduce the rate of illiteracy by helping schools throughout the Arab region retain more children and minimize school wastage at an early and crucial stage in the lives of millions of Arab children.

II. GENERAL GUIDING PRINCIPLES

1. Standard Arabic will be the only variety of Arabic used in the program. This automatically excludes the use of any other language or language variety. This also eliminates the possibility of using any specific regional dialect of spoken or colloquial Arabic.

2. The content of the program will in no way conflict with the philosophy of education in any Arab country's curriculum.

3. Language is highly meaningful and meaning must remain the final goal of any linguistic undertaking. The program content must, therefore, be meaning-centered. More specifically:

    a. The content must be meaningful to members of the target group.
    b. The linguistic content must always be contextualized and not presented in isolation.
    c. The language of the program must be deeply purposeful and functional.
    d. The program content must be sufficiently appealing to members of the target group to attract them to watching the show attentively.

4. The program will take into consideration the needs of children and the society in which they live, such as developing intellectual curiosity in the children and challenging them to some constructive mental activities.

5. The program will seek to develop, in the children of the target group positive and culturally-approved values. (See appendix A)

6. The program will ensure that Arabic is introduced and presented not only as a literary language, but also as a language which can be a vehicle of modern life. In other words, the multifarious functions and utility of Arabic as a language of contemporary science and technology will be emphasized.

7. The program will not commit itself to any one pedagogical approach or educational theory but will avail itself of all approaches and theories in as much as these approaches and theories are in harmony with the goals and outcomes of the program.

8. The program will attempt to develop successful reading strategies among members of the target group since it is these strategies which produce successful readers (see IV. below for details.).

9. The program will seek to expose the children to elements of the content in varied and interesting ways by employing a variety of techniques. Due attention will also be given to repeating and drilling elements of the linguistic content in a natural and non-artificial way.

10. It will be assumed that not all members of the target group will view all the program shows. Furthermore, it will be assumed that many children may not be able to watch the program for the first time until it is halfway through. For this reason, the individual shows of the program will not be sequenced in any way which makes the viewing of one show a necessary prerequisite to the understanding of subsequent shows. The components of a single show, however, will be sequenced in such a way as to present the simple and more basic material before introducing the more complex and demanding segments of that show's content.

11. The following table will be used as a guide in apportioning program segments for the different grade levels of the target group:

GRADE LEVEL	PERCENTAGE
Before Grade 2	10%
Grade 2	55%
Grade 3	25%
Beyond Grade 3	10%

a. (See appendix B)

III. CURRICULUM CONTENT

A. Phonology (Sounds)

1. Correct articulation of all sounds of standard Arabic. Special emphasis will be given to problems arising from underdiscrimination between certain sounds in some social and regional dialects spoken in the Arab region.

EXAMPLES:

- The first sound in the following pairs and groups of letters has disappeared from the dialects spoken by the urban population in countries like Syria, Lebanon and Egypt:

qaf	(ق)	vs.	hamza	(ء)
qaf	(ق)	vs.	kaf	(ك)
dhal	(ذ)	vs.	dal	(د) and zay (ز)
tha'	(ث)	vs.	sin	(س) and ta' (ت)
Dha'	(ظ)	vs.	zay mufakhkhama	
Dad	(ض)	vs.	dal	(د)
Sad	(ص)	vs.	sin	(س)
Ta'	(ط)	vs.	ta'	(ت)

Dad (ض) has fallen with Dha' in the Arab countries of North Africa, Iraq, Saudi Arabia, the Gulf countries, etc.

Qaf (ق) has merged with ghayn (غ) in the speech of most Sudanese, among others.

Jim (ج) has merged with ya' (ي) in the speech of some areas in Saudi Arabia and most of the Gulf countries.

2. Correct aural discrimination of individual Arabic sounds. This follows from and is closely connected with the preceding item. For example, a speaker who does not have Ta' (ط) or tha' (ث) in his/her speech should be able to hear these sounds when they occur in standard Arabic and distinguish them from ta' (ت) and sin (س) respectively.

3. Recognition and production of correct or suitable intonation patterns and in association with specific patterns of written language. Thus, the intonation pattern used with a question is different from that of a statement, a command, or an exclamation, a fact which is indicated in writing by the use of different punctuation marks for each of these types of utterance. Intonation can also vary within the same type of utterance as when different intonation patterns are used to distinguish a complete utterance (indicated by a full stop in writing) from an incomplete one (indicated by a comma, a dash, etc.).

4. Correct and smooth pronunciation of syllables, words, and sentences in general. More specifically:

   i. Correct pronunciation of the definite article 'al- in relation to "sun" and "moon" letters.

   ii. Correct pronunciation of letters with more than one pronunciation as in:

      - 'alif as a vowel and as a hamza
      - waw and ya' as vowels and consonants
      - The ta' marbuta as a ta' and a ha'
      - Hamzatu l-wasl

5. The use and appreciation of ~~spoken~~ language as a source of joy and amusement (word play, songs, rhymes, etc.).

B. Orthography (Writing)

1. Correct visual discrimination of letters of the alphabet and their names, with special attention to:

   i. Recognizing different shapes of the same letter (including alif maqsura and alif mamduda).

   ii. Learning the Arabic alphabetical order. [illegible]

   iii. Recognizing the same letter in different script styles (e.g., naskh, riq'a, kufi, etc.)

   iv. Correct discrimination of letters with identical or similar shapes but different dotting.

2. Recognizing diacritical and short vowel signs and their contribution to pronunciation. These include:

   i. Short vowel (vocalization) signs (fat-ha, damma, kasra).

   ii. Diacritics (shadda, sukun, madda, hamzatu l-wasl).

   iii. Nunation signs (tanwin fath, damm, kasr).

1182D
7/8/85

3. Dealing with some problems which arise from the lack of correspondence between spelling and pronunciation. These problems include:

   i. Sounds represented by different letters or letter shapes (e.g., alif, ha', hamza, etc.).

   ii. Sounds which are not represented in writing (هذا ، لكن ، ذلك)

   iii. Letters and symbols which are written but not pronounced ('alifu l-jama'a, hamzatul l-wasl).

   iv. Recognition of letter combinations (digraphs) as in (سؤ سئ سأ ، لا ، أل ، إلخ).

4. Correct letter formation and spelling in writing, including correct hand movement and the ability to distinguish which letters connect to others and which do not.

5. The use and significance or function of punctuation marks in writing.

6. Recognition of differences between the ~~Arabic and Indian~~ numerals used respectively in the Maghrib (Western) and Mashriq (Eastern) Arab countries.

C. Morphology (Paradigms and Patterns)

   1. Associating some grammatical endings (inflections) with certain grammatical devices (e.g. jarr marked by i, - in, etc. with prepositions, jazm in verbs with lam, fath with 3rd person singular verbs in the past, etc.)

   2. Attending to some special issues in morphology which have a bearing on reading such as:

      i. Hamzatu l-wasl in some verb forms (staqbala) and moods (imperative).

      ii. Sound and broken plurals

      iii. Dual forms

      iv. Passive and active verb forms.

1182D
7/8/85

-74

3. Presenting suitable and adequate material on the derivational patterning of Arabic including:

   i. Verb forms I - X (i.e., the basic and augmented forms).

   ii. Nominal and adjectival forms derived from different verb forms.

   iii. Derivational analysis of related words as in the different verb forms (I, II, III, IV, etc.), words belonging to different parts of speech derived from the same root(to write, book, writer, office, library, letter, etc.).

4. Presenting suitable and adequate material ~~and information~~ concerning the structural patterning and analysis of Arabic including:

   Syntax

   i. Nominal and adjectival cases (raf, nasb, jarr)

   ii. Verb moods(jazm, nasb, raf')

   iii. Number in nouns and adjectives (singular, dual, and plural).

   iv. Person, gender and number in verbs.

   v. Person, gender, and number in pronouns.

   vi. Agreement patterns in number (masculine vs. feminine patterns) and definiteness (definite noun + definite adjective or indefinite noun + indefinite adjective).

   vii. Vowel mutations in some verbs and other parts of speech related to them as in: Ghafa: Yaghfu: ghafawtu: ghafwa
   rama: yarmi: ramaytu: ramya
   nama: ynamu: nimtu: nawma

   viii. Patterns of adjectival comparison (e.g. kabir: akbar)

   ix. ~~Structural~~ analysis of words into stems and grammatical inflections as in sing. form + plural ending (معلم : معلمون), analysis of different forms of the verb inflected for tense, number, and gender, etc.

D. Syntax (Grammar)

1. Word order and its importance to meaning and as a factor in morphology and grammar (cf. لعب الولد / الولدان / الأولاد
الولدان لعبا / الأولاد لعبوا

2. Relation of grammar to meaning as in:

   i. The difference between passive and active constructions.

   ii. Differences in number and gender.

   iii. The relation between tense, mood and time in verbs.

1182D
7/8/85

iv. Different types of utterance and their corresponding meanings (statements, questions, commands, affirmative and negative sentences, etc.)

3. Patterns of questions and answers appropriate to each pattern (Who? How? What? When? Yes/No questions, etc.).

Move (4) Cultural Phrases etc. (F) Other

The notion of sociolinguistic competence and the appropriateness of language to the following factors, among others:

i. Time of the day (e.g., good morning, good evening).

ii. Age of and relation to addressee (e.g., 'brother' or 'sister' in addressing a person of the speaker's generation but 'uncle' or 'aunt' in addressing a person of a higher generation).

iii. Situation (e.g., saying 'thank you' to a person who helps speaker).

iv. Linguistic input (e.g., a greeting from another person must not be met with silence from the addressee but with a suitable exchange of greetings as in: ا- السلام عليكم ب- وعليكم السلام - شكراً - عفواً

v. Occasion (e.g., using language appropriate to such occasions as a birthday, Christmas, etc.).

vi. Conventionalized associations between linguistic and non-linguistic matters (e.g., breakfast is associated with morning, lunch with noon, and dinner with evening).

E. Lexis (Vocabulary)

1. Teaching basic sets of sight reading vocabulary including the following sets or parts thereof:

i. Function words(prepositions, pronouns, demonstratives, etc.)

ii. Expressions and formulas which recur in the children's environment (بسم الله الرحمن الرحيم، الله أكبر، كل عام و أنتم بخير، الخ)

iii. High-frequency words in the children's environment (مدرسة، شركة، بريد)

2. Expanding the children's MSA vocabulary and reinforcing their existing stock of such words in addition to developing their awareness of the need for precise vocabulary selection as a means to achieve accuracy of expression (e.g. choosing the right word from a group of semantically related words to denote the sound of a specific animal; choosing the right word to denote a certain baby animal or bird; etc.). More frequent words should be given precedence. (formulas)

1182D
7/8/85

3. Utilization of the notion of 'word family' on various linguistic levels including:

   i. Paradigms and conjugations.

   ii. Derivational patterns based on the same root.

   iii. Semantically related words and concepts (e.g., kinship terms, terms used in agriculture, cooking, health, etc.)

   iv. Synonyms and antonyms.

   v. Phonologically related words (minimal pairs, rhyming words, words used for progressive shifting, etc.)

   vi. Grammatical and structural similarity (parts of speech).

   vii. Orthographic similarity (as in ... تحت، تخت، نحت، نخب)

4. Lexical variation in MSA as in the case of different words used in naming some fruits and vegetables (e.g., peaches, plums, potatoes, tomatoes), milk products (e.g., laban, halib, yoghurt), units of currency (dinar, dirham, riyal, lira, jineeh), and others.

5. Using dictionaries and other reference material (e.g., encyclopedias and telephone directories).

6. Teaching some basic metalinguistic terms and concepts which are essential in the presentation of program content. Examples of such concepts are: Word, sentence, names of the letters of the alphabet and the diacritics, punctuation marks, questions, and others.

IV. Instructional Strategies

It may be appropriate at the outset to clarify the difference between the contents of this section and the preceding one (III. Content). As we see it, the program content consists of linguistic elements and skills which we hope this series will be able to impart to members of the target group, whereas we view strategies as being carefully planned methods and techniques which the production team can employ for the successful achievement of the content goals as well as for achieving the non-linguistic goals stated or implied in sections I and II of this document, especially those relating to the development of positive values in the target group. These strategies include the following, possibly among others:

1. Predictability (also referred to as, 'the cloze phenomenon' or 'language redundancy') is a universal feature of human language which should be maximally exploited in the program. The importance of this strategy

stems from the fact that there seems to be general agreement among experts in reading that the most successful readers are those who are able to make correct predictions about the text they are reading. The implication of this fact is that reading is not a process which primarily involves letter and word decoding. If this were so, no one would be able to read as fast as he speaks, a claim which can be easily refuted by casually observing a small number of successful readers.

As far as the program is concerned, exploiting predictability in language implies encouraging the reader to rely heavily on contextual clues to make intelligent guesses about the language he is reading on all levels: phonological, orthographic, morphological, syntactic and lexical. Thus, an English word which begins with three consonants the first two of which are st- should trigger to the reader that the third letter must be r. This is not an insignificant matter since the number of English words beginning with str- is extremely small compared with the number of words in the language. Coupled with other contextual clues (subject matter, preceding and following words), this kind of knowledge about the phonological structure of English words would narrow the possibilities down to a few words, if not to the very word itself.

Without going into further details about this extremely important matter, let us only mention some examples of the usefulness of predictability on other linguistic levels:

i It is predictability which enables us to identify misspellings and misprints and correct them. Without it, editors of old manuscripts would not be able to supply letters and parts of words they often find missing from their manuscripts.

ii. On the phonological level, predictability is crucial in enabling readers to correctly read devocalized texts in Arabic (see 3 below) since such texts usually contain numerous words which, when devocalized, would be indistinguishable. The linguistic context, in so far as it is known to the reader, helps him/her assign correct vocalization to those words.

iii. On the morphological level, predictability assumes even greater significance in a language like Arabic. Here, with the right strategy, such questions and issues as grammatical agreement in case, number, and gender should become automatic matters. Encouraging children to guess the meaning of a word on the basis of its root or pattern formation is too obvious a case to require any further explanation.

iv. The adoption of a problem solving approach in which the key to the solution is based on predictability is especially useful in syntax. A preposition before a noun should automatically trigger the dative case for that noun, and that in turn, should trigger the same case for any adjectives related to the noun as well as for any other nouns coordinated with the head noun.

v. A predictability-based problem-solving approach is probably most useful (and most familiar in classroom situations) in the area of vocabulary. Predictability is a salient feature of all methods and practices which rely in introducing new vocabulary items on such techniques as guessing the meaning of a word from the context in which it appears or by juxtaposing it with a familiar synonym or antonym.

2. Notwithstanding the preceeding statement on predictability, a strategy which remains with us for the rest of our lives once we have learned how to use it, other intermediate and temporary strategies are also needed, especially in dealing with beginning and emerging readers to whom our target group belongs. One such strategy is scanning for structure and meaning, which enables a beginning reader to decipher a word by recognizing its individual components and by processing and blending them into a meaningful whole.

   On a higher level, the same strategy (which, incidentally, may also be referred to as analysis and synthesis), is responsible for the reader decoding and processing larger "chunks" of language such as phrases and sentences. One of the implications of this strategy is that readers should be able to decode as well as encode new material composed of old elements such as new words consisting of letters already taught and new sentences constructed from familiar words.

3. Special mention needs to be made in connection with literacy teaching in Arabic, namely, the question of vocalization and the extent to which it must be used in the program. There is no question that vocalization should be consciously and actively taught, especially in segments aimed at children in the second and earlier grade levels. However, care must be taken to reduce reliance on vocalization and children must be gradually weaned from it. This is essential since most adult readers of Arabic usually read devocalized texts. It is also important to remember that this requirement is in complete harmony with IV. 1. above concerning predictability in language. As long as the reader relies completely or even partially on vowel signs and diacritics, his use of predictability will be kept to a minimum. Conversely, the earlier he is made to read devocalized texts, the sooner he will develop his power of prediction in reading and become a successful and full-fledged reader.

4. Strategies must be developed by the program producers to ensure that the program is maximally appealing, attractive, and educationally fruitful to members of the target group. The following brief list of such strategies is by way of exemplification and is not meant to be exhaustive:

   i. Taking into consideration the education needs and psychological characterisitics of the target group. One implication of this requirement is the introduction of content material through games, songs, and other means favored by children.

ii. Exploiting the special characteristics of Arabic to maximize the educational efficiency and effectiveness of the program and to ensure the best possible outcome. Among such characterisitcs is the exploitation of the structural and derivational properties of Arabic, which make the meanings of many new words transparent if the meaning of the root or some other related word is known.

iii. Making use of the children's cultural and home environment to the fullest extent possible. Although the rate of illiteracy in most Arab countries is high, the use of print, even in illiterate homes, is widespread. Thus, we must reckon with and make use of the fact that, in spite of widespread human illiteracy, the environment is highly literate. Extensive use is made of print in an artistic form for display everywhere: in homes and mosques, offices and other places of work, and even in cars and buses. This is one among other factors and considerations which, if adequately tapped, will help us in achieving such lasting and important goals as creating successful and enthusiastic readers for life.

5. We should not lose sight of the importance of rules as a useful and effective instructional strategy. By definition, a rule is a generalization which applies to many (often, to an infinite number of) instances under certain conditions. The central and key position of rules in language education is a fact known to anyone who has learned a language. In fact, the acquisition and generalization of rules may be described as the essence of language education. The implication of this fact is not only to inject rules into the program, but, more importantly, to find ways and means which enable the target group to generalize the rule and transfer its useability from a few examples to a wider range of data. This should be done on all levels, extending from generalizations about the conventions of writing and print and related pronunciations, to generalizations about the structure of words and sentences. In other words, generalizations can be made about spelling, pronunciation, word structure, rules of grammar and even meaning. Without correct generalizations about the various aspects of language, it is impossible to be a successful user of language at any level. And let us remember that it is in the generalization of rules that the creative genius of language lies.

It is also worth remembering in this connection that no accomplished reader in any language was ever taught how to read each and every word (s)he can read. What (s)he was taught or made to acquire is a strategy which can be used in and generalized to all reading situations and materials.

6. An evaluation phase or component will be integrated in each show to enable viewers to interact with the show in keeping with assumption 1.6. In this component, old material will be utilized to form new content and see if the viewers have successfully achieved the goals of that show and developed some of the strategies needed by them to become successful readers. The evaluation phase can be used in a number of different ways to suit the different components of each show. Here are three examples.

i. After a group of similar letters have been introduced and taught (e.g., Ha', Jim, and Kha'), nahla and nakla or Hamal and jamal may be used for evaluation. One member of the pair appears on the screen and is read to the viewers. Then the second word appears beside or underneath the first one and the children will be asked to read it. After a few seconds, the test word is read to the viewers.

ii. Viewers will be asked in a variety of ways to compose new words of familiar letters and/or syllables. They can also be asked to compose or read new sentences constructed from old words.

iii. After introducing and teaching a certain root and some of its derivatives, we may ask viewers to suppply other derivatives which belong to the same root. They can also be asked to extract the root from a number of words given to them.

v. Conclusion and Reminder

As a concluding remark, we should be careful not to lose sight of the overall unity of linguistic levels and language skills. If it has been necessary to present certain aspects of language and language skills in a compartmentalized fashion for convenience and ease of reference, the conclusion must not be made that this is the way that language functions. Language is a system with all components functioning simultaneously in harmony. This is such a basic issue that it cannot be overemphasized.

The implication which emerges from the foregoing paragraph is that every attempt should be made to present 'integrative' material which at one and the same time has a clear content goal, is natural, and reveals as much as possible of the inherent features and beauty of the language.

91

Appendix 2. Cultural Context Statement

CULTURAL CONTEXT

Guiding Principles

1. Quran is the principal reference source of Arabic language. Verses of Quran could be used when appropriate to clarify meanings of words and sentences.

2. Objectives should stem from the Arabic-Islamic heritage and medern Arab nation's aspirations.

3. Objectives should meet needs of Arab children and needs of society in the target Arab states.

4. Some knowledge of the geography and history of the Arab World should be provided.

Examples of Needs

1. Communication through:
   - Reading
   - Writing
   - Speaking
   - Observing
   - Interpreting graphs, signs and signals.
   - Using numbers in actual life.

2. Intellectual curiosity

3. Useful fantasy

4. Love of reading for pleasure, enculturation, employment, education and self-initiative.

5. Values and attitudes such as:
   - Faith
   - Health: developing good habits, nutrition, hygiene, sanitation, excercise and sports.
   - Ecological needs: preserving energy and natural resources
   - Dignity of manual labor
   - Balancing needs of individual and community.
   - Scientific way of thinking
   - Objectivity
   - Truth
   - Appreciation of women's role
   - Respect for others' ideas and views
   - Respect for rural life and contribution
   - Team-work and cooperation
   - Innocent fun and recreation
   - Respect and consideration of elderly and disabled
   - Regard of animals
   - Appreciation of historical heritage, monuments and artifacts.

Appendix 3. ETS Materials

EDUCATIONAL TESTING SERVICE PRINCETON, N.J. 08541

800-021-0000
CABLE-EDUCTESTSVC

DATE: July 4, 1985

MEMORANDUM FOR: Ahmad Hyassat
Ministry of Education
Jordan

FROM: Richard T. Murphy
Educational Testing Service
Princeton

RE: Meeting in Jordan
July 1985

I would like very much to meet with you in Jordan to discuss the following items:

- o Test materials available at the Ministry of Education
- o Examples of items used in Reading tests in Jordan
- o Kinds of information available at the Ministry of Education
- o Ways that teachers might participate in gathering information from children and parents
- o Ways that principals might participate in setting up designs for measuring the impact of the Arabic TV Reading Program

EDUCATIONAL TESTING SERVICE PRINCETON, N.J. 08541

609-921-9000
CABLE-EDUCTESTSVC

DIVISION OF
EDUCATION POLICY RESEARCH
AND SERVICES

DATE: July 1985

TO: Participants at the Meeting in Amman

FROM: Richard T. Murphy
Educational Testing Service
Princeton, New Jersey 08541

RE: Summative Evaluation

Educational Testing Service (ETS), with headquarters in Princeton, New Jersey, U.S.A., will be responsible for the implementation of the Summative Evaluation. Preparation for the Summative Evaluation will be an ongoing project as target groups in the participating countries are identified.

Educational Testing Service will work with the participating countries in designing the evaluation plan, instrumentation, and techniques for data collection. Plans for gathering data will be worked out locally as the project progresses.

The core ETS staff currently includes:

Dr. Richard T. Murphy
Senior Research Psychologist
Division of Education Policy Research and Services, and

Dr. Ellen B. Mandinach
Associate Research Psychologist
Division of Measurement Research and Services

During the course of the project, additional staff will be added as needed.

DESCRIPTION OF THE ELECTRIC BATTERY AND SAMPLE ITEMS

The items in The Electric Battery were ordered according to item type rather than item content. Subtests often contained items of more than one item type. The descriptions of the subtests treat each subtest and describe the item types within it. In the copy of the Battery that follows the descriptions, each item is identified by its subtest and each group of item types is labelled.

Matching

8 items and 1 example -- Child marks the group of letters that matches stimulus.

The items in the next three subtests are of 5 types:

1. Initial sounds: The child marks a letter or letters whose sound begins a word that is presented pictorially and orally.

2. Rhyme: The child marks the printed word that ends (rhymes) with a word presented pictorially and orally.

3. Rhyme of different spellings: The child marks the printed word that rhymes with a stimulus printed word.

4. Ending sounds: The child marks the word presented pictorially and orally that ends with the sound of a stimulus printed letter or letters.

5. Matching pictures to words: The child marks the word presented pictorially and orally that represents a printed stimulus word.

Blending Total -- 28 items

1. Consonants -- 13 items
   - Initial sounds -- 9
   - Ending sounds -- 1
   - Matching pictures to words -- 3

2. Vowels -- 6 items
   - Initial sounds -- 1
   - Matching pictures to words -- 5

3. Consonant blends -- 9 items
   - Initial sounds -- 3
   - Ending sounds -- 4
   - Matching pictures to words -- 2

Chunks Total — 28 items

1. Vowel Combinations — 9 items
   Rhyme — 3
   Rhyme of different spellings — 3
   Matching pictures to words — 3

2. Consonant digraphs — 6 items
   Initial sounds — 3
   Matching pictures to words — 3

3. Controlled vowels — 4 items
   Rhyme — 2
   Rhyme of different spellings — 1
   Matching pictures to words — 1

4. Larger spelling patterns — 5 items
   Rhyme — 2
   Matching pictures to words — 3

5. Sight words — 4 items
   Matching pictures to words — 4

Scanning Structure Total — 14 items

1. Final e — 6 items
   Rhyme — 4
   Matching pictures to words — 2

2. Double consonants — 4 items
   Rhyme — 4

3. Open syllables — 4 items
   Rhyme — 2
   Rhyme of different spellings — 2

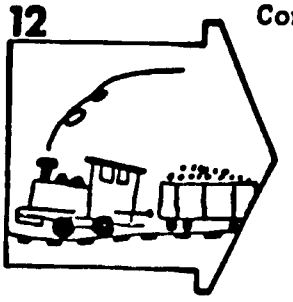
Reading for Meaning Total — 45 items

1. Morphemes — 10 items and 1 example
   The child marks the picture that represents a written phrase or sentence that contains a standard English morpheme.

2. Sentences — 6 items and 1 example
   The child marks the picture that represents a written sentence.

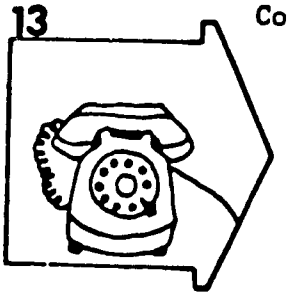
3. Syntax — 7 items and 1 example
   The child marks the word or words that correctly complete a printed sentence.

12 Consonant blends



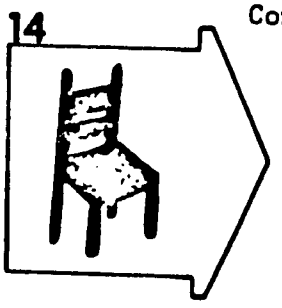
sk	br	tr	sh

13 Consonant digraphs



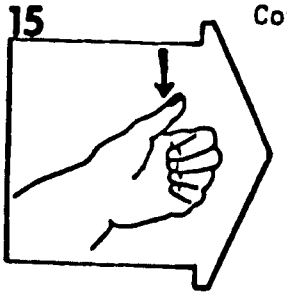
ph	po	sh	vo

14 Consonant digraphs



cr	ch	cl	sh

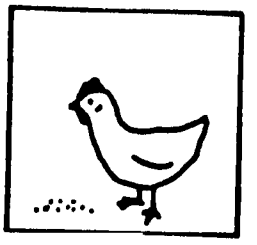
15 Consonant digraphs

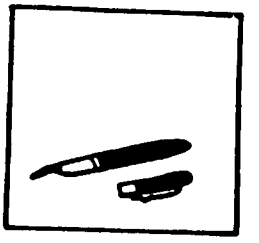


sh	tu	du	th

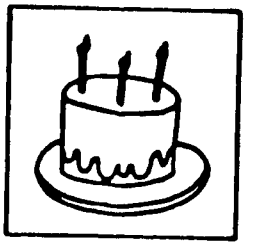
Rhyme

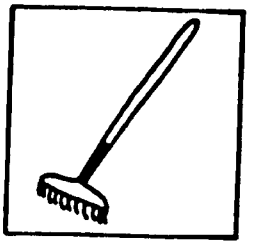
1 Example



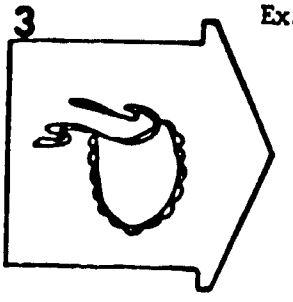


2 Example



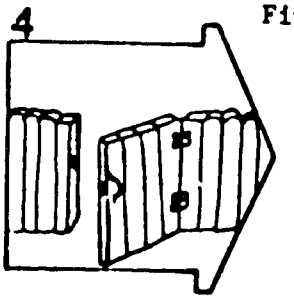


3 Example



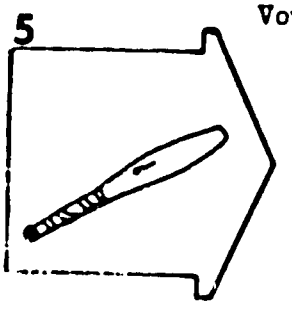
rat | rap | rib | rod

4 Final e



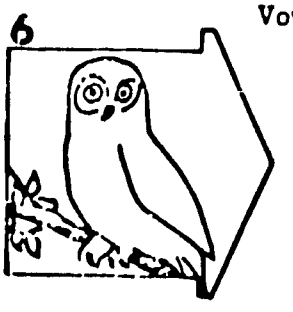
mat | meet | met | mate

5 Vowels



hot | hit | hut | hat

6 Vowel combinations

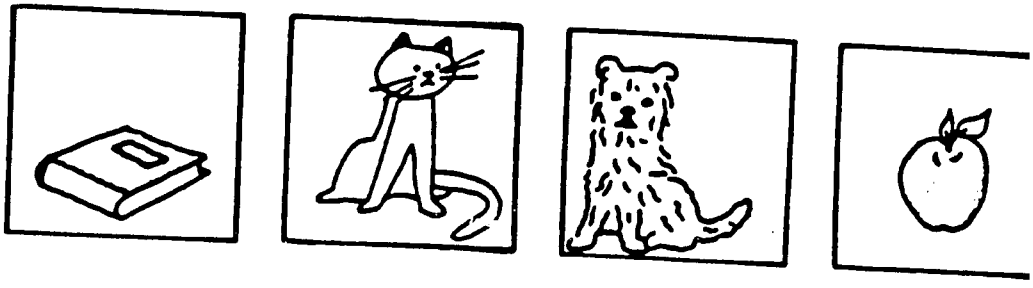


foul | foil | fail | fool

Matching pictures to words

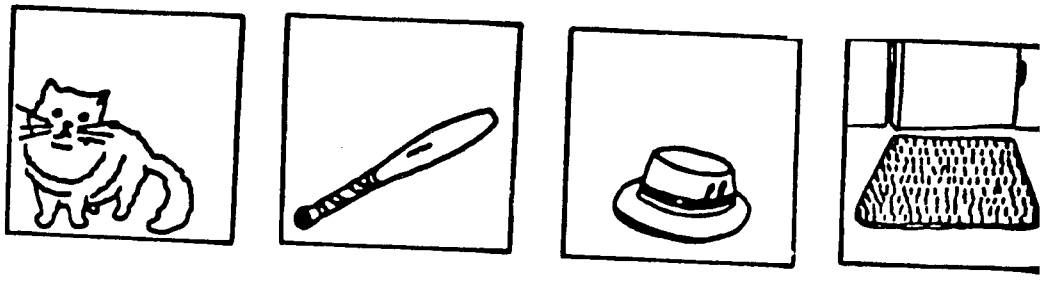
Example

dog



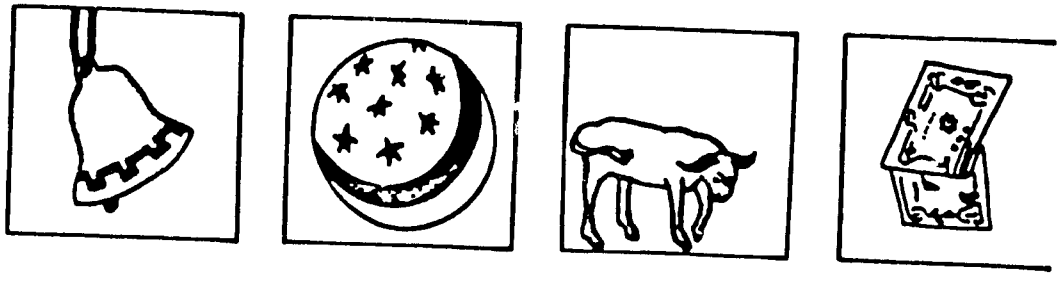
2 Consonants

cat



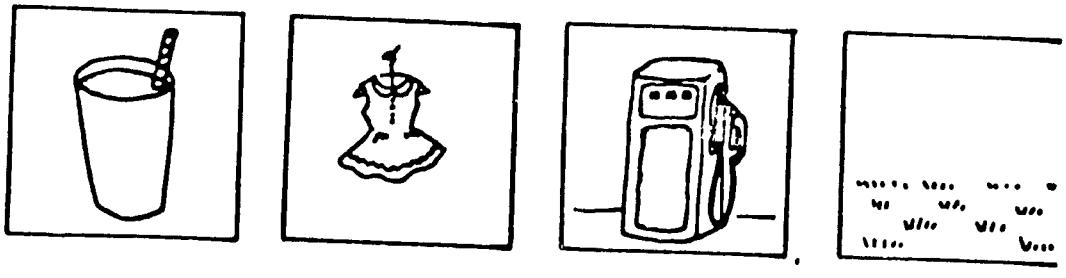
3 Larger spelling patterns

ball



4 Consonant blends

grass



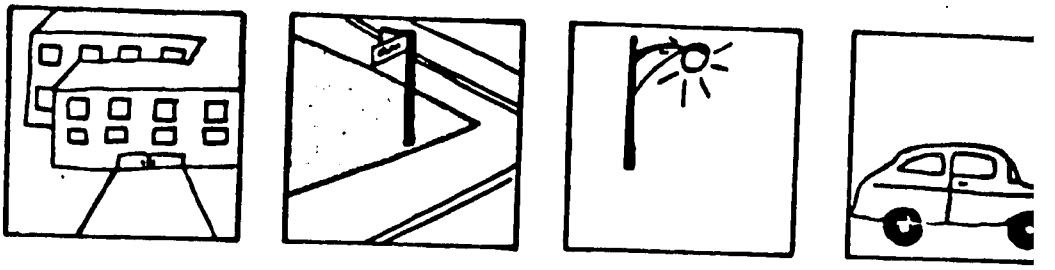
5 Consonant blends

clock

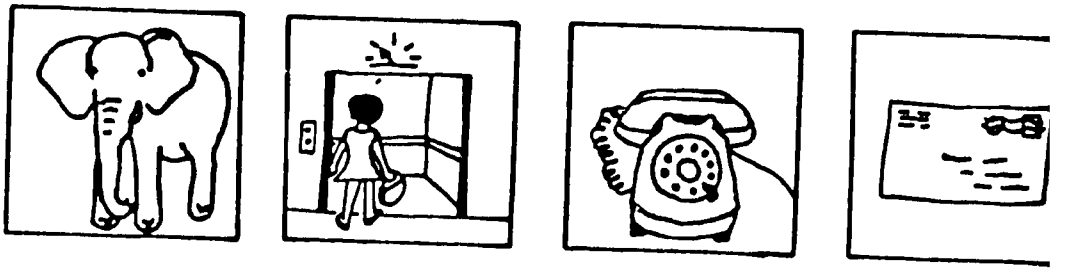
91

Sight words

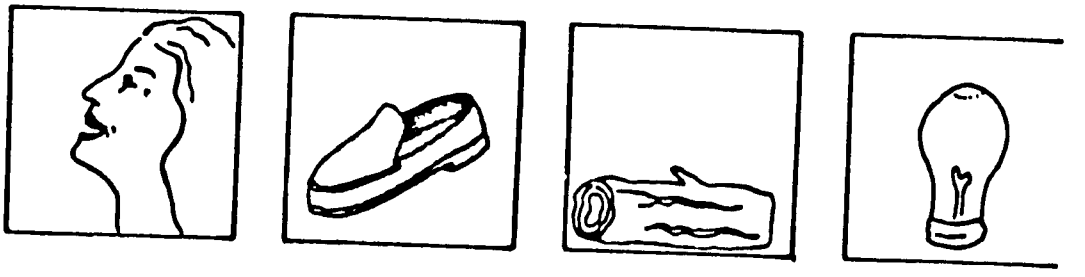
20 AVENUE



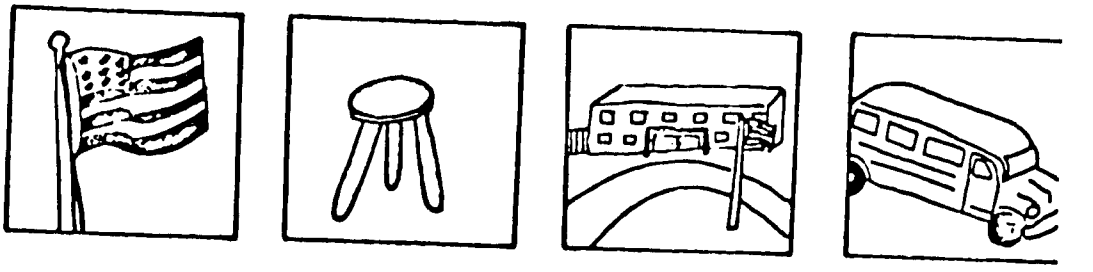
21 elevator



22 laugh

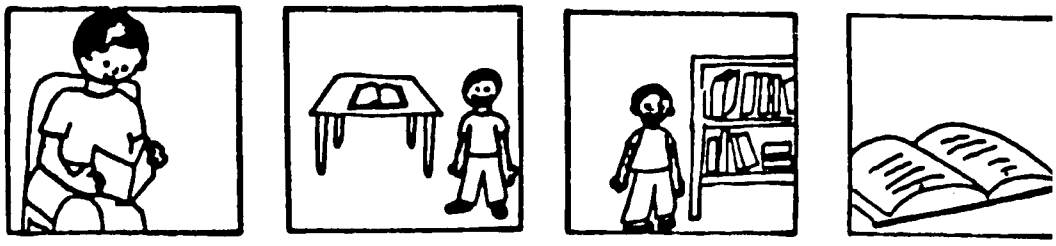


23 school



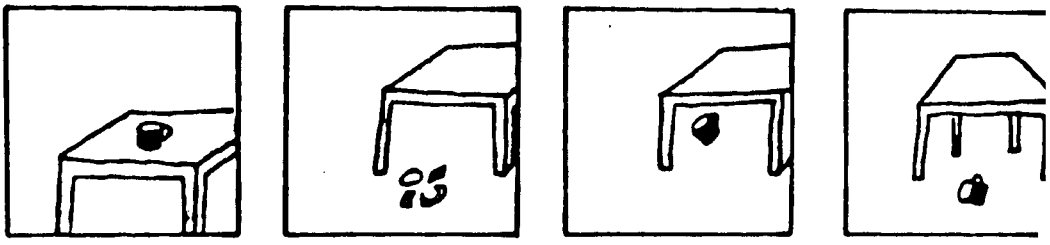
13

He is reading.



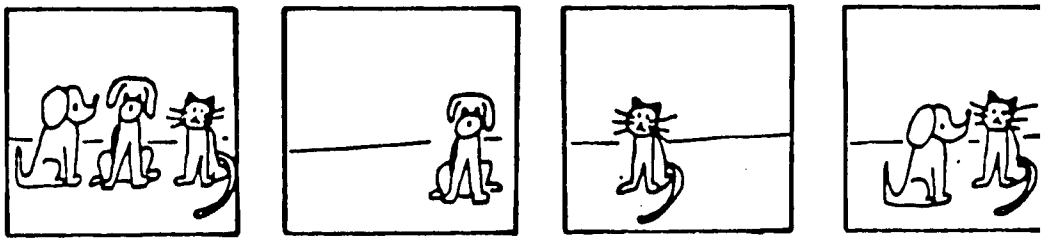
14

The cup didn't fall.



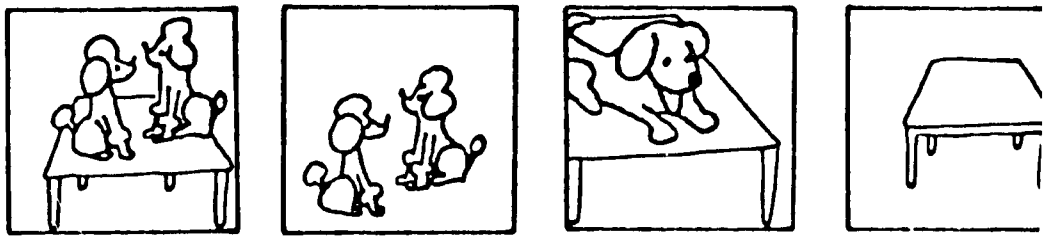
15

The cat isn't here.



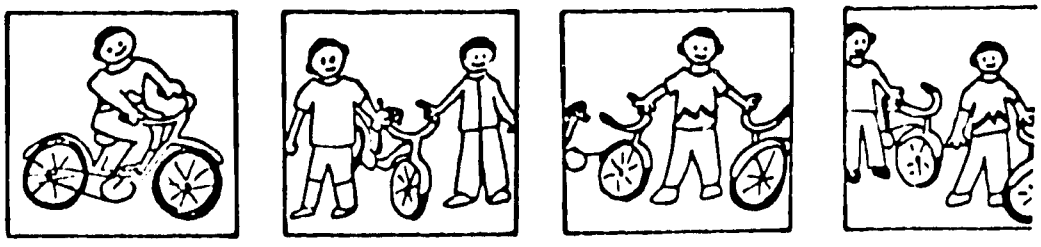
16

The dog's on the table.



17

The boys have bikes.



Abstract II

The In-school Viewing Experiment: An Overview of Target and Non-target Classes

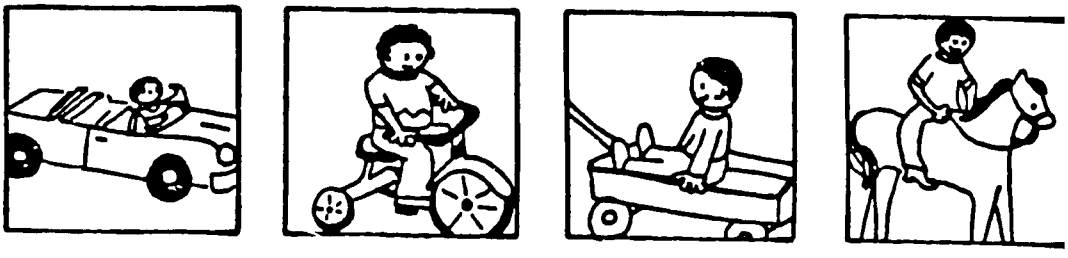
	Fresno Target				Fresno Non-target			
	Pretest	Posttest	Gain	Adjusted Variable	Pretest	Posttest	Gain	Adjusted Variable
		N=14 pairs		Grade 2		N=10 pairs		
Viewing	61.4	93.8	32.4		93.4	114.4	21.1	
Non-viewing	58.3	83.2	24.9		96.5	112.6	16.1	
Viewing minus Non-viewing	3.1	10.6	7.6	7.6	-3.2	1.8	5.0	2.3
SE of Estimate	2.4	3.0	1.9	2.1	2.6	0.9	2.4	1.0
		N=10 pairs		Grade 3		N=8 pairs		
Viewing	79.6	99.0	19.4		107.7	116.3	8.6	
Non-viewing	83.0	98.4	15.4		108.5	114.8	6.3	
Viewing minus Non-viewing	-3.4	0.6	4.0	3.5	-0.8	1.4	2.3	1.6
SE of Estimate	3.0	2.8	1.3	1.5	0.8	0.7	1.0	0.9
		N=11 pairs		Grade 4		N=8 pairs		
Viewing	98.4	109.0	10.6		115.7	119.6	3.9	
Non-viewing	94.3	103.6	9.3		116.0	118.6	2.6	
Viewing minus Non-viewing	4.1	5.4	1.3	2.0	-0.3	1.0	1.3	1.1
SE of Estimate	2.6	2.3	0.9	1.0	0.8	0.6	0.5	0.4
	Youngstown Target				Youngstown Non-target			
		N=20 pairs		Grade 2		N=17 pairs		
Viewing	70.4	98.0	27.6		97.3	113.7	16.5	
Non-viewing	65.3	90.4	25.1		96.5	112.5	16.0	
Viewing minus Non-viewing	5.1	-1.6	2.5	2.4	0.8	1.2	0.4	0.9
SE of Estimate	1.8	2.1	0.9	1.1	2.1	1.0	1.5	0.7
		N=10 pairs		Grade 3		N=10 pairs		
Viewing	84.3	100.6	16.3		107.9	116.3	8.4	
Non-viewing	87.4	100.6	13.2		108.1	114.4	6.3	
Viewing minus Non-viewing	-0.6	0.2	3.0	2.6	-0.3	1.3	2.1	2.0
SE of Estimate	2.0	1.0	1.3	1.6	0.9	0.7	0.8	0.7
		N=10 pairs		Grade 4		N=10 pairs		
Viewing	102.7	110.1	7.4		116.1	119.7	3.6	
Non-viewing	103.3	110.0	6.7		116.4	118.4	2.0	
Viewing minus Non-viewing	-0.6	0.2	0.7	0.4	-0.3	1.3	1.6	1.5
SE of Estimate	2.0	1.0	1.3	0.6	0.9	0.7	0.3	0.2

5 They walk _____.	are nice	run	up the stairs	paper and pencil
6 The _____ apple is mine.	eat	big	mouth	fruit
7 I _____.	am going	the song	to come	a chair
8 The car is _____.	sadly	to do	goes	big

Context

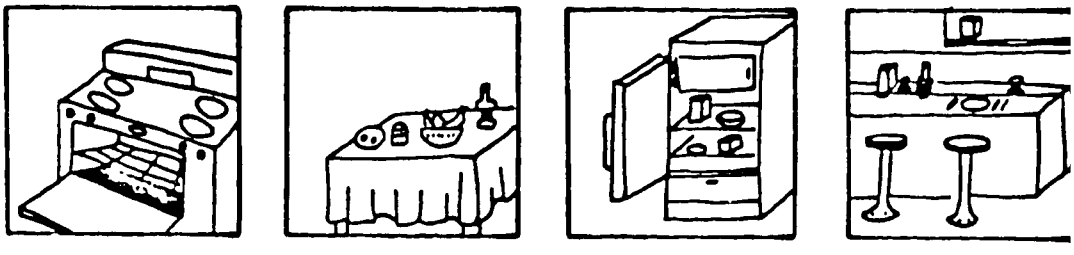
18

The little boy rides a tricycle.



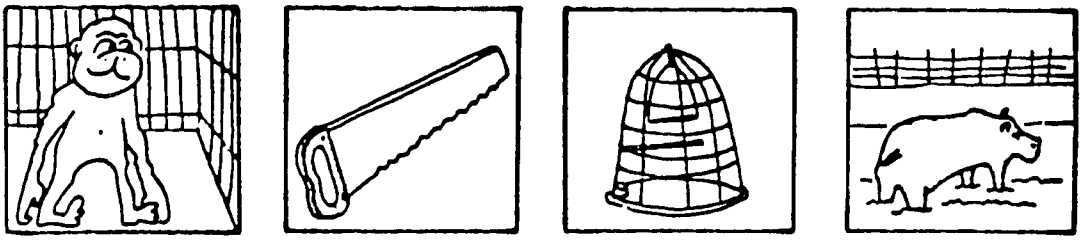
19

The food is in the refrigerator.



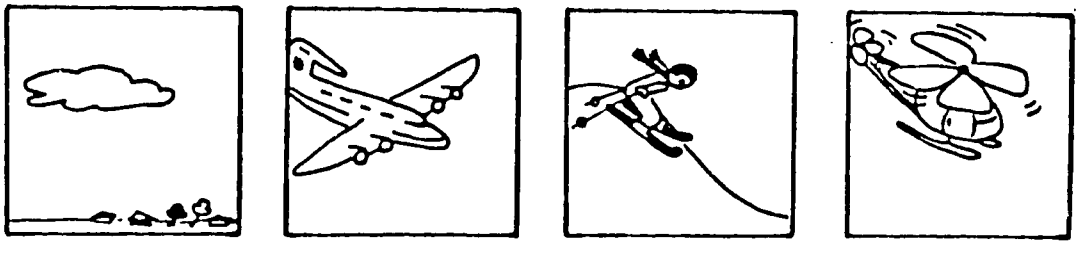
20

I saw a hippopotamus at the zoo.



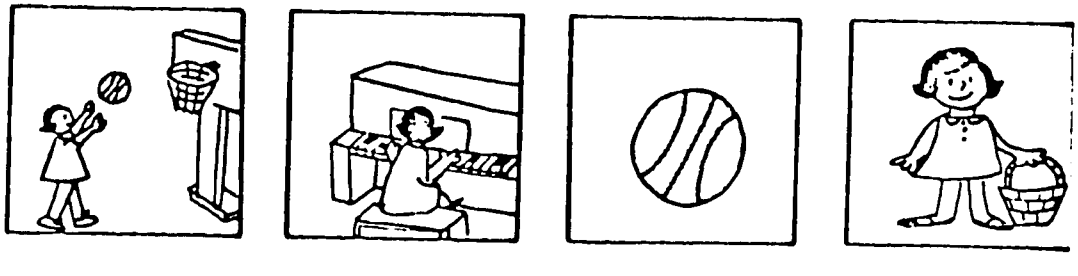
21

A helicopter is in the sky.



22

She plays basketball.



For ETS Use Only

1	2	3	4
City	Grade	Class	

5	6	7
School		Tester (0)

TEACHER QUESTIONNAIRE

We at Educational Testing Service thank you for your cooperation during the year in our evaluation of The Electric Company. We would greatly appreciate your further cooperation in completing this final questionnaire. Your responses here will be used to make the show more responsive to your class's needs.

PART I (for all teachers)

1. Name _____
(First) (Middle) (Last)

2. School _____ 3. Grade _____

4. Number of children in your current class _____ 8,9

For the purposes of this questionnaire, you should think of reading as any work done in the classroom or school library with printed words. This includes, for example, phonics, sight reading, and writing words, but does not include experiential background, such as field trips, etc. to prepare children for actual reading activities.

5. Which one of the following terms comes close to describing your major classroom approach to the teaching of reading this year? (Circle one number.)

Linguistic.	1	10
Phonetic.	2	
Language experience	3	
Modified alphabet (ita)	4	
Eclectic.	5	
Other (specify)_____	6	
Don't know.	7	

6. In the course of reading instruction during this year, how much time did your class spend in each of the following activities? (Circle one number for each activity.)

	Considerable Amount	Moderate Amount	Some, not much	Little or none	11-15
Phonic Drill	1	2	3	4	
Whole Word Drill	1	2	3	4	
Silent Reading	1	2	3	4	
Reading Aloud	1	2	3	4	
Writing	1	2	3	4	

7. With respect to structure, how would you characterize the method by which you taught reading this year? (Circle one number.)

Highly structured	1	16
Moderately structured	2	
Basically unstructured.	3	

QUESTIONNAIRE FOR PARENTS

DO NOT WRITE IN THIS SPACE

1	2	3 4	5 6
Site	Grade	Class	Child

7: 2 Posttest

Your full name _____
first middle last

Your address _____

Your phone number _____

Today's date _____
month day year

RT I

Child's full name _____
first middle last

How many brothers and sisters does child have? (Write number) _____ 8,9

How does your child spend his time at home? (Circle 1 for Yes or 2 for No for each one.) 10-18

	Yes	No
Watches TV.	1	2
Listens to radio or records	1	2
Talks to or helps me.	1	2
Reads with an adult or older person .	1	2
Reads by himself.	1	2
Plays by himself.	1	2
Plays with other children	1	2
Does chores	1	2
Other: (Specify) _____	1	2

_____

8. Does your child have his own: (Circle 1 for Yes or 2 for No for each one.) 19-2:

	Yes	No
Art things like crayons or paints . .	1	2
Toys like puzzles, blocks, games. . .	1	2
Books	1	2
Records or tapes.	1	2

QUESTIONNAIRE FOR PARENTS

EDUCATIONAL TESTING SERVICE PRINCETON, N.J. 08540

Area Code 609
921-9000
CABLE-EDUCTESTSVC

Division
of
Educational Studies

April, 1972

Dear Parent:

Your child's class has been taking part in a national study of children's reading. We have been working with all of the children in the class, using new materials that we hope were interesting to the children. The information from your child's class will be added to information from other classes in the school and from schools in other communities.

We feel that what a child does when at school is not the only important part of education. What a child does at home strongly influences learning. In order to know what sorts of things your child does when not at school, we are again asking the person who knows best--the parent. Attached is a questionnaire that we hope you will fill out and return.

We urge you to complete the questionnaire as accurately and honestly as possible. The information you provide will be used for research purposes only and will be kept completely confidential. Once it has been determined that all of the questionnaires have been returned, your name will not be used again; an identification number will be assigned to your questionnaire in order to keep it confidential.

If you have any questions about this study, please ask your child's teacher. There is also space provided at the end of the questionnaire for you to add any comments you wish to make.

We appreciate your willingness to participate in this important venture. Thank you for your cooperation during the entire year.

Appendix 4. Sample Statistical Data on Education in Jordan

المدارس حسب السلطة المشرفة والجنس والمراحل التعليمية
Schools By Sex, Cycle & Controlling Authorities

Schools المدارس															
Secondary الثانوي															
الثانوي المهني Sec. voc.			عام Gene-	Total المجموع							المجموع Total			الجنس Sex	سلطة تنظيم Controlling Authority
ثانوي Sec.	مراكز Centers	مدارس Schools	مدارس Schools	ثانوي Sec.	مراكز Centers	مدارس Schools	تحضيري Preparatory	ابتدائي Elementary	روضة Kindergartens	ثانوي Sec.	مراكز Centres	مدارس Schools			
75	58	18	452	75	58	470	1057	1166	244	75	58	2937	المجموع T.	المجموع العام	Grand Total
31	29	13	229	31	29	242	482	278	1	31	29	1003	ذكور M.		
44	29	4	192	44	29	196	361	346	2	44	29	905	إناث F.		
—	—	1	31			32	214	542	241	—	—	1039	مختلط Co.Ed		
73	55	17	412	73	55	429	921	944	—	73	55	2294	المجموع T.	وزارة التربية	Min. of Educ.
30	26	13	206	30	26	219	419	224	—	30	26	862	ذكور M.		
43	29	3	180	43	29	183	311	297	—	43	29	791	إناث F.		
—	—	1	26			27	191	423	—	—	—	641	مختلط Co.Ed		
			3			3	8	2	1			14	المجموع T.	حكومة أخرى	Other Gov.
			3			3	6	1	—			10	ذكور M.		
			—			—	2	1	—			3	إناث F.		
			—			—	—	—	—			1	مختلط Co.Ed		
	1				1	—	101	109			1	210	المجموع T.	وكالة الغوث	U.N.R.W.A.
	1				1	—	51	53			1	104	ذكور M.		
	—				—	—	45	47			—	92	إناث F.		
	—					—	5	9				14	مختلط Co.Ed		
2	2	1	37	2	2	38	27	111	243	2	2	419	المجموع T.	التعليم الخاص	Private Educ.
1	2	—	20	1	2	20	6		1	1	2	27	ذكور M.		
1	—	1	12	1	—	13	3	1	2	1	—	19	إناث F.		
	—	—	5			5	18	110	240	—	—	373	مختلط Co.Ed		

102

Primary Cycle : **المرحلة الابتدائية :**

عدد المدارس والشعب والمعلمين والطلبة حسب الجنس والسلطة المشرفة لعام ١٩٨٢/١٩٨٣

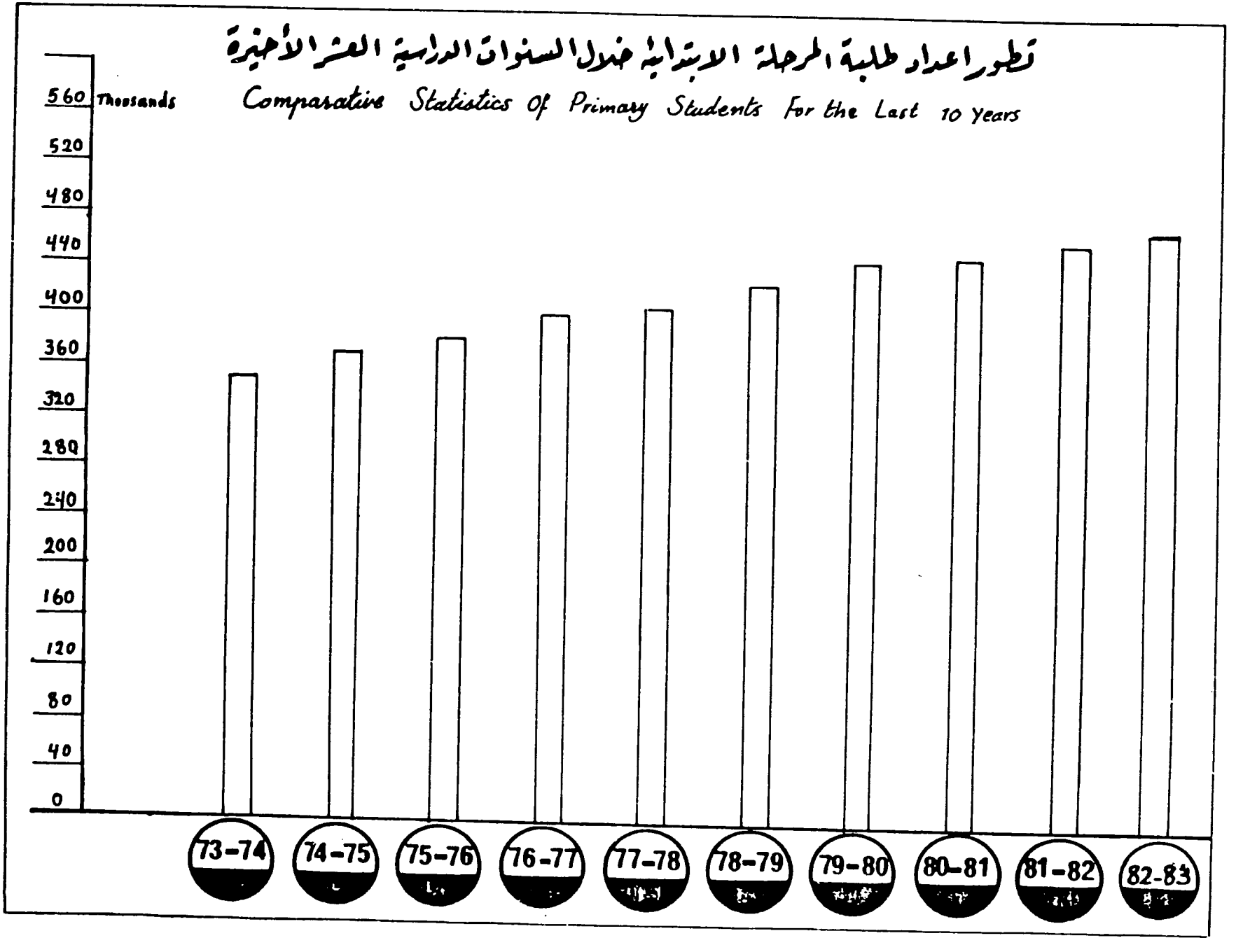
Number of Schools, Class-Units, Teachers and Students By Sex and Controlling Authority, 1982/1983

السلطة المشرفة Controlling Authority	الجنس Sex	المدارس Schools	الشعب Class-Units	الطلبة Students	المعلمون Teachers
المجموع العام Grand Total	مجموع T.	1129	14476	473027	14873
	ذكور M.	322	5967	246719	5186
	اناث F.	280	5742	226308	9687
	مختلطة Co-Ed.	527	2767	—	—
وزارة التربية والتعليم Min. of Education	مجموع T.	923	11060	347749	11231
	ذكور M.	269	4670	180219	3925
	اناث F.	236	4523	167530	7306
	مختلطة Co-Ed.	418	1867	—	—
وزارة الدفاع Min. of Defence	مجموع T.	—	57	2039	69
	ذكور M.	—	37	1490	45
	اناث F.	—	12	549	24
	مختلطة Co-Ed.	—	8	—	—
وكالة الغوث U.N.R.W.A.	مجموع T.	104	2313	93304	2291
	ذكور M.	50	1144	47854	1125
	اناث F.	44	1091	45450	1166
	مختلطة Co-Ed.	10	78	—	—
المدارس الخاصة Private Schools	مجموع T.	102	1046	29935	1282
	ذكور M.	3	116	17156	91
	اناث F.	—	116	12779	1191
	مختلطة Co-Ed.	99	814	—	—

توزيع المدارس حسب الجنس والسلطة المشرفة في مكاتب التربية والتعليم لعام ١٩٨٢/١٩٨٣

Distribution of Schools By Sex, Controlling Authority and Offices Education,1982/1983

مكاتب التربية والتعليم Offices of Education	الجنس Sex	المجموع Total	السلطة المشرفة Controlling Authority: وزارة التربية والتعليم Min. of Education	وزارة الدفاع Min. of Defence	وكالة الغوث U.N.R.W.A.	المدارس الخاصة Private Schools
المجموع العام Grand Total	جميع T.	1129	923	—	104	102
	ذكور M.	322	269	—	50	3
	اناث F.	280	236	—	44	—
	مختلطة Co-Ed.	527	418	—	10	99
جبل الحسين J. Al-Hussein	ذكور M.	18	10	—	8	—
	اناث F.	12	11	—	1	—
	مختلطة Co-Ed.	47	30	—	6	21
جبل عمان J. Amman	ذكور M.	21	20	—	1	—
	اناث F.	16	16	—	—	—
	مختلطة Co-Ed.	46	28	—	1	17
الاشرفية J. Al-Ashrafieh	ذكور M.	24	14	—	9	1
	اناث F.	26	13	—	13	—
	مختلطة Co-Ed.	40	30	—	—	10
المحطة Al-Mahata	ذكور M.	27	22	—	5	—
	اناث F.	29	25	—	4	—
	مختلطة Co-Ed.	26	10	—	2	14
مادبا Madaba	ذكور M.	22	20	—	1	1
	اناث F.	11	10	—	1	—
	مختلطة Co-Ed.	38	35	—	—	3
حي شهيب Shabib	ذكور M.	36	29	—	7	—
	اناث F.	30	24	—	6	—
	مختلطة Co-Ed.	24	20	—	—	4
حي البتراوي Betrawi	ذكور M.	32	32	—	—	—
	اناث F.	29	29	—	—	—
	مختلطة Co-Ed.	25	20	—	—	5
البلقاء Balqa	ذكور M.	15	7	—	8	—
	اناث F.	20	11	—	9	—
	مختلطة Co-Ed.	40	35	—	—	5
اربد Irbid	ذكور M.	26	19	—	6	1
	اناث F.	28	22	—	6	—
	مختلطة Co-Ed.	10	4	—	—	6
بيت راس Beit Ras	ذكور M.	12	10	—	2	—
	اناث F.	12	11	—	1	—
	مختلطة Co-Ed.	17	16	—	1	—
ايدون Aidoun	ذكور M.	17	16	—	1	—
	اناث F.	13	12	—	1	—
	مختلطة Co-Ed.	18	15	—	—	3
الرمثا Ramtha	ذكور M.	10	10	—	—	—
	اناث F.	6	6	—	—	—
	مختلطة Co-Ed.	11	11	—	—	—
عجلون Ajlun	ذكور M.	3	3	—	—	—
	اناث F.	3	3	—	—	—
	مختلطة Co-Ed.	16	12	—	—	4
جرش Jarash	ذكور M.	9	7	—	2	—
	اناث F.	9	7	—	2	—
	مختلطة Co-Ed.	21	21	—	—	—
المفرق Mafraq	ذكور M.	8	8	—	—	—
	اناث F.	8	8	—	—	—
	مختلطة Co-Ed.	61	59	—	—	2
الكرك Karak	ذكور M.	9	9	—	—	—
	اناث F.	5	5	—	—	—
	مختلطة Co-Ed.	51	49	—	—	2
الطفيلة Tafila	ذكور M.	12	12	—	—	—
	اناث F.	10	10	—	—	—
	مختلطة Co-Ed.	14	13	—	—	1
معان Ma'an	ذكور M.	12	12	—	—	—
	اناث F.	5	5	—	—	—
	مختلطة Co-Ed.	15	15	—	—	—


تطور اعداد طلبة المرحلة الابتدائية خلال السنوات الدراسية العشر الأخيرة
Comparative Statistics Of Primary Students For the Last 10 years
Thousands
560
520
480
440
400
360
320
280
240
200
160
120
80
40
0
73-74
74-75
75-76
76-77
77-78
78-79
79-80
80-81
81-82
82-83

Summary Data :

احصاءات اجمالية :

عدد المدارس والشعب والطلبة والمعلمين حسب الجنس والسلطة المشرفة لعام ١٩٨٢/١٩٨٣

Number of Schools, Class-Units, Students and Teachers By Sex and Controlling Authority, 1982-1983

السلطة المشرفة Controlling Authority	المدارس Schools				الشعب Class-Units				الطلبة Students			المعلمون والمعلمات Teachers		
	مجموع Total	ذكور Male	اناث Female	مختلطة Co-Ed.	مجموع Total	ذكور Male	اناث Female	مختلطة Co-Ed.	مجموع Total	ذكور Male	اناث Female	مجموع Total	ذكور Male	اناث Female
المجموع العام Grand Total	2895	1012	814	1069	25598	11053	10313	4232	820113	435170	384943	31008	13917	17091
وزارة التربية والتعليم Min. of Education	2238	874	707	657	19075	8727	8319	2029	594961	310273	284688	23527	10557	12970
وزارة الدفاع Min. of Defence	12	7	2	3	122	82	24	16	3814	2828	986	183	132	51
حكومية اخرى Other Gov. Authorities	10	—	—	10	179	141	2	36	3928	3551	377	159	153	6
وكالة الغوث U.N.R.W.A.	212	104	89	19	3382	1724	1572	86	134147	69746	64401	3687	2005	1682
المدارس الخاصة Private Schools	423	27	16	380	2840	379	396	2065	83263	48772	34491	3452	1070	2382

Appendix 5. Sample Test Materials

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الاســـم :

تاريخ الميلاد :

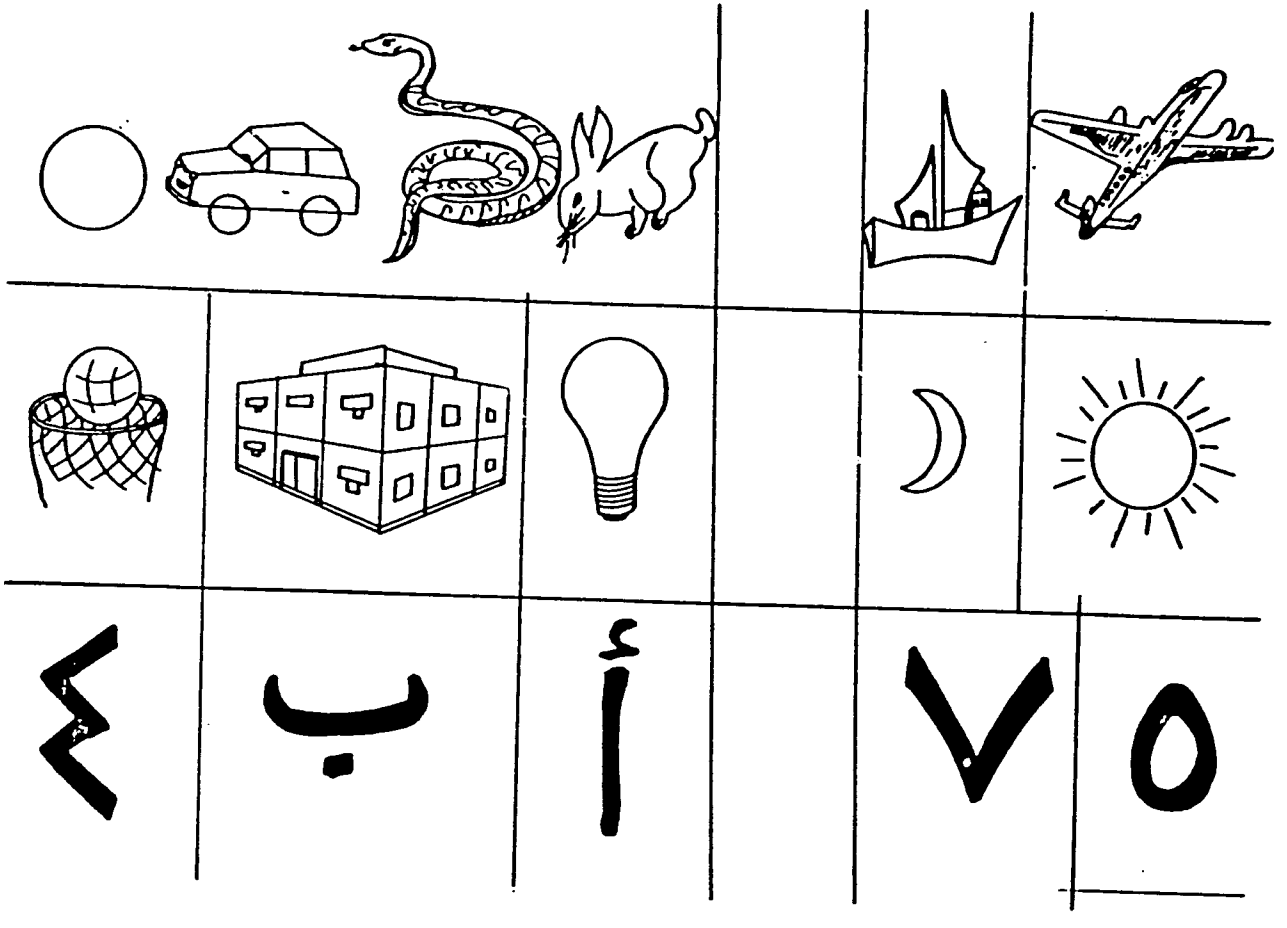
الصـــف :

تقدير الطالب في الحساب :

تقدير الطالب في اللغه العربيه :

المعدل العـــام:

تاريخ الاختبـــار :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ب
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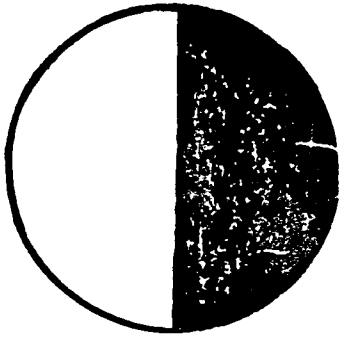	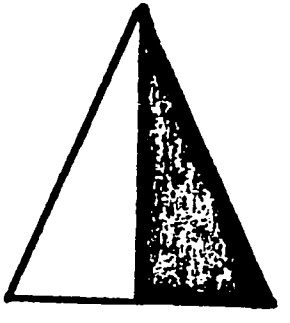	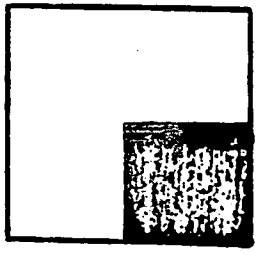	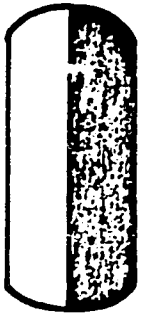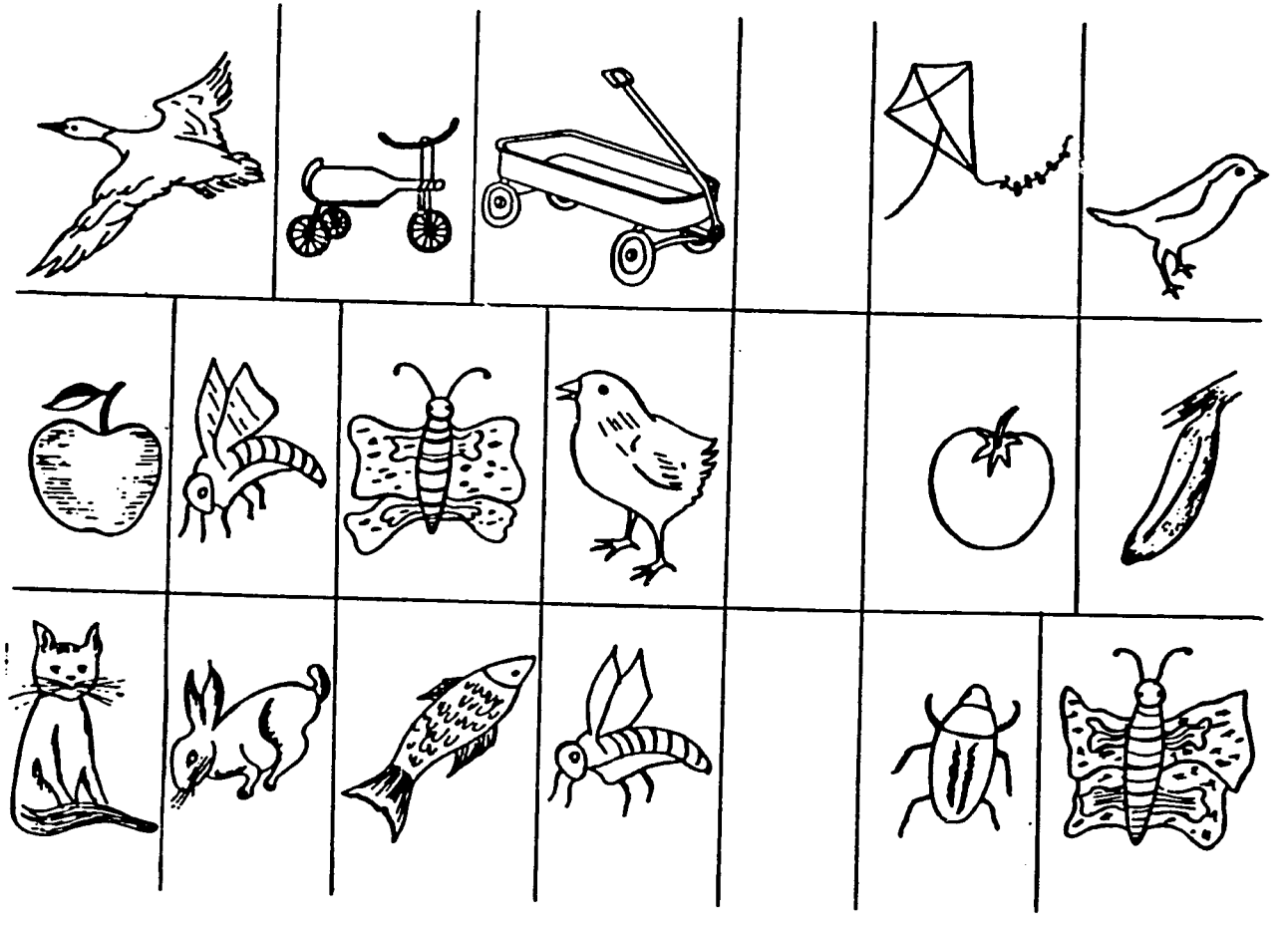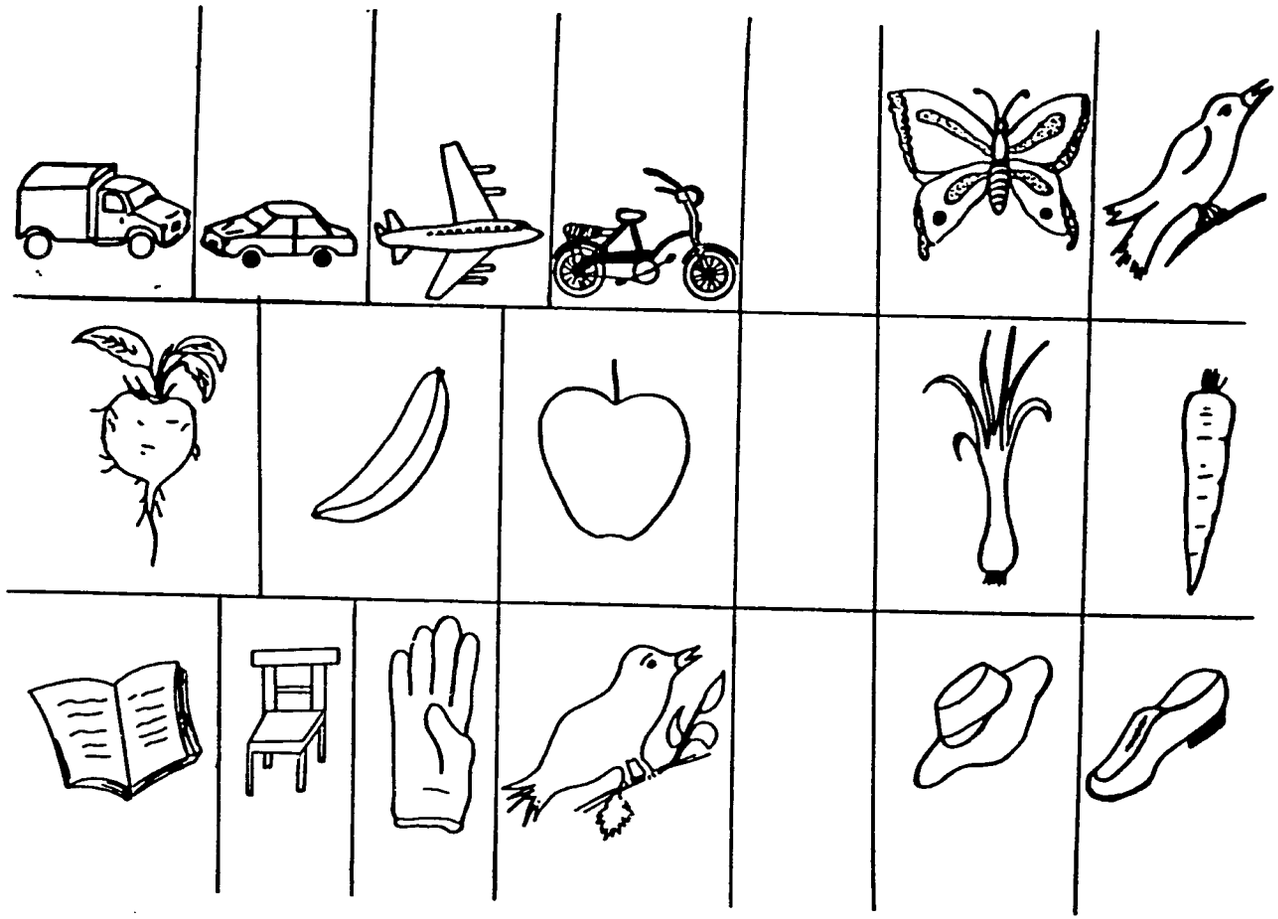
١٢٣٤	٦٧٨٩	٤٣٢١	٥٦٧٨