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DEVELOPING A TESTING PROGRAM FOR EDUCATIONAL
DEVELOPMENT IN TURKEY.

The Ohio State University, Ph.D., 1970
Education, general

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1971
DEVELOPING A TESTING PROGRAM FOR EDUCATIONAL DEVELOPMENT IN TURKEY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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The Ohio State University
1970

Approved by

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To the United States Government and American private agencies which have provided Turkey with so many advisors who, in turn, have inspired me to continue my education in the United States. I am also indebted to those great scholars.

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VITA

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FIELDS OF STUDY

Major Field: Education

Educational Research and Development
Evaluation and Measurement
Test Construction and Data Processing
Guidance and Counseling
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INTRODUCTORY NOTE

The ultimate goal of the researcher in this dissertation is to develop a testing program which can open opportunities to "out-of-school youth and adults" in Turkey to continue their education.

The main assumptions behind the proposed testing program are as follows:

(1) The development of a testing program can develop education in Turkey.

(2) By implementing this program, Turkey can increase its social and economic resources.

(3) This program can be an inexpensive and practical way of meeting the needs of individuals while also meeting the needs of Turkish society.

Eventually, educational tests will be needed for all present grades and levels of education in Turkey, covering all major curriculum areas. Tests also will be needed to help in the preparation of personnel for new positions which are forming in Turkish society. To prepare students for these tests, programs of teaching will be needed which can operate outside of, or supplemental to, present schools.

These programs will need to assume the students can give only part-time to their education. Correspondence courses, night schools, vocational schools, special seminars and other innovative means will be required.
In this dissertation, the researcher is concerned with establishing a conceptual framework by which to orient and guide work in the designing of an agency to initiate and then develop a testing program, leading into the further development of needed teaching programs for the disadvantaged.

The content of the dissertation has been divided into the following chapters:

The background of the study is covered within Chapter One. The analysis of the elementary and secondary education in Turkey are investigated in Chapters Two and Three. Chapter Four sheds light on the main problems of the school-leavers and provides data about the number of the "out-of-school youth and adults" in Turkey. The main causes for educational failure in Turkey are described in Chapter Five. Chapter Six provides a summary on the productivity and needs of the Turkish educational system. Chapter Seven has been devoted to the establishment of the new agency for educational development, to its functions, and to its policies. Chapter Eight presents an "example" of a testing program for the new agency. Chapter Nine provides a plan for the test construction process in a program for preparing elementary school teachers. Chapter Ten summarizes on the proposed agency, pointing to the needs it could help fulfill in developing education in Turkey.
PART I

THE PRODUCTIVITY OF THE TURKISH EDUCATIONAL SYSTEM
CHAPTER I

INTRODUCTION

The idea of "Developing a Testing Program for Educational Development in Turkey" has been the result of this researcher's fifteen years of professional teaching, service, and observation within the Turkish educational system at all levels of education. The investigator is of the opinion that the Turkish educational system is ineffective, out-moded, and inefficient; it has handicapped tens of thousands each year at all levels of education; it has never recognized any educational opportunity for the disadvantaged. Furthermore, the Turkish educational system has never been organized to meet the needs of the individuals or the demands of the nation's social and economic development.

The testing program proposed in this dissertation is not designed to replace the educational system now in existence, but to provide several new avenues of educational opportunity for the out-of-school youth and adults.

To understand the necessity and the importance of this proposed program for Turkey it is necessary to investigate the existing Turkish educational system. This analysis will provide information about the degrees of productivity, the effectiveness, and the main problems involved in the educational system. It will also provide some idea
about the scope and the methodology of the proposed program and the number of people who might benefit from the efforts of the program.
CHAPTER II

THE PRODUCTIVITY OF THE TURKISH ELEMENTARY SCHOOLS

The productivity of the elementary schools in Turkey can be indicated by data comparing the elementary school age population to actual elementary enrollments, enrollments to actual completion of elementary school work, and elementary graduates to admissions to secondary schools.

Table 1 compares the school age population to enrollments in elementary schools at five-year intervals from 1945 through 1965.

Looking at averages over the five time-periods, the proportion of total enrollments to populations was 46.6%, meaning that 53.4% of the children were not in school. In actual numbers, this means that an average of nearly 2,500,000 children in each of the given years were not in school.

As between boys and girls, there were marked differences. Of the boys, 54.5% over the five time-periods were in school, as against 38% of the girls, meaning that approximately half of the boys and nearly two-thirds of the girls were not enrolled.

Comparing the time-periods, it is evident that some progress was made. Between 1945 and 1965, the proportion enrolled in school increased from 32.8% to 59.2%, with the boys increasing from 39.4%
<table>
<thead>
<tr>
<th>Census Year</th>
<th>7 To 14 Year Old School-Age Population</th>
<th>The Enrolled Elementary School Children</th>
<th>% Ratio of the Enrolled Elementary Children to the 7-14 Year Olds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (2)</td>
<td>Female (3)</td>
<td>Total (4)</td>
</tr>
<tr>
<td>1945</td>
<td>2,038,840</td>
<td>1,759,160</td>
<td>3,798,000</td>
</tr>
<tr>
<td>1950</td>
<td>2,199,621</td>
<td>1,730,724</td>
<td>3,930,345</td>
</tr>
<tr>
<td>1955</td>
<td>2,188,144</td>
<td>1,902,944</td>
<td>4,091,088</td>
</tr>
<tr>
<td>1960</td>
<td>2,840,466</td>
<td>2,537,756</td>
<td>5,378,222</td>
</tr>
<tr>
<td>1965</td>
<td>3,409,233</td>
<td>3,028,594</td>
<td>6,437,827</td>
</tr>
<tr>
<td>Averages</td>
<td>2,535,260</td>
<td>2,191,835</td>
<td>4,727,096</td>
</tr>
</tbody>
</table>

to 67.8% and the girls from 25.1% to 49.7%. Even so, in 1965, there were over 2,000,000 children not enrolled. Despite the efforts of Turkey after the revolution of 1960, the elementary schools were unable to include a large and significant segment of the increasing school age population.

Table 2 compares enrollments to graduates, showing data for classes graduating in the five-year intervals from 1945 through 1965. Comparing the enrollments in the first grade to graduates five years later, the proportions graduating averaged 64.4% over the five time-periods. The per cent increased over the five time-periods from 57.5% in 1945 to 68.8% in 1965. These figures do not represent the efficiency level of the schools, however, because of the significant number of repeaters in any graduating class, held over from previous classes. Though no specific figures are reported, a fair estimate would be that the 64.4% reported above as an average productivity would reduce to somewhere between fifty and fifty-five per cent, when eliminating repeaters.
### TABLE 2

THE PRODUCTIVITY OF THE TURKISH ELEMENTARY SCHOOLS*

<table>
<thead>
<tr>
<th>School Year (1)</th>
<th>Number of Students Admitted to First Grade (2)</th>
<th>Graduated in School Year (3)</th>
<th>Number of Students Graduated from Fifth Grade (4)</th>
<th>% of Productivity (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940-1941</td>
<td>154,984</td>
<td>1944-1945</td>
<td>89,238</td>
<td>57.5</td>
</tr>
<tr>
<td>1945-1946</td>
<td>243,936</td>
<td>1949-1950</td>
<td>140,734</td>
<td>57.6</td>
</tr>
<tr>
<td>1950-1951</td>
<td>296,271</td>
<td>1954-1955</td>
<td>173,650</td>
<td>58.6</td>
</tr>
<tr>
<td>1955-1956</td>
<td>399,309</td>
<td>1959-1960</td>
<td>273,199</td>
<td>68.4</td>
</tr>
<tr>
<td>1960-1961</td>
<td>644,060</td>
<td>1964-1965</td>
<td>443,696</td>
<td>68.8</td>
</tr>
<tr>
<td>Averages</td>
<td>347,712</td>
<td></td>
<td>224,103</td>
<td>64.4</td>
</tr>
</tbody>
</table>

Table 3 compares graduates to admissions in secondary education. The table reports admissions to six categories of secondary schools: the regular junior high schools, teacher training schools, religious schools, commerce schools, trade schools, and other vocational or professional schools. Covering the four academic years, 1961-62 through 1964-65, the number of students graduating from elementary schools in the Spring of a given year are compared to the number admitted and attending secondary schools in the Autumn of that year.

Expressed in ratios of numbers admitted to secondary schools per thousand graduating from elementary school, the four years show a range from 421 (g-1963-1964) to 472 (g-1961-1962), averaging around 447. This means that less than half of the graduating children continue their education beyond the five years of elementary school.

Comparing the figures for the six types of secondary schools, it is the regular junior high school that gets the predominant numbers, ranging between 330 (a-1963-1964) and 394 (a-1961-1962) per thousand graduates each year, with an average of around 365, or 82% of the 447 who, on the average, enter secondary schools. Among the five types of secondary schools, other than the traditional junior high school, the enrollments in trade schools get the bulk (e-row), but they all receive little more than token numbers of youth. An obvious critical weakness of education is the very low number, nine to twelve per thousand graduates each year, entering teacher training (b-row).

---

### TABLE 3
NUMBER OF ELEMENTARY SCHOOL GRADUATES ENTERING INTO SECONDARY LEVEL SCHOOLS IN TURKEY.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Number of Fifth Grade Graduates</td>
<td>326,896</td>
<td>358,833</td>
<td>388,191</td>
<td>443,696</td>
</tr>
<tr>
<td>Number Entering into:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Junior High School</td>
<td>128,796</td>
<td>133,844</td>
<td>128,103</td>
<td>161,949</td>
</tr>
<tr>
<td>Per Thousand Graduates*</td>
<td>394</td>
<td>373</td>
<td>330</td>
<td>365</td>
</tr>
<tr>
<td>b) Teacher Training School</td>
<td>3,922</td>
<td>4,305</td>
<td>3,494</td>
<td>5,324</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>12</td>
<td>12</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>c) Religious Schools</td>
<td>1,961</td>
<td>2,870</td>
<td>4,658</td>
<td>3,993</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>6</td>
<td>8</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>d) Commerce Schools</td>
<td>2,941</td>
<td>3,229</td>
<td>3,882</td>
<td>4,437</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

*"Per Thousand" of those who have been enrolled into secondary schools in Turkey.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>e) Trade Schools</td>
<td>15,364</td>
<td>26,865</td>
<td>21,351</td>
<td>23,072</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>47</td>
<td>47</td>
<td>55</td>
<td>52</td>
</tr>
<tr>
<td>f) Other Vocations, Professions in Turkey</td>
<td>1,307</td>
<td>1,435</td>
<td>1,940</td>
<td>2,662</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>g) Total: Students</td>
<td>154,294</td>
<td>162,551</td>
<td>163,428</td>
<td>201,437</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>472</td>
<td>453</td>
<td>421</td>
<td>443</td>
</tr>
<tr>
<td>h) Not able to Attend Any Schools in Turkey</td>
<td>172,610</td>
<td>196,281</td>
<td>224,763</td>
<td>242,259</td>
</tr>
<tr>
<td>Per Thousand Graduates</td>
<td>528</td>
<td>547</td>
<td>579</td>
<td>546</td>
</tr>
</tbody>
</table>
Generalizing from the three tables, one can say that, for the period 1945-65, the production level of the elementary educational system in Turkey was roughly one-half of one-half of one-half, i.e., one-half of the school age population enrolled in school, one-half of the enrollees graduated, one-half of the graduates entered secondary schools. Or, expressed in numbers, out of one-hundred in the school age population, fifty enrolled, twenty-five graduated, and twelve continued their education at the secondary level.

Though the trends were generally upward over the period, it was still true in 1965 that enrollments had not reached 60% of the population, graduates had not reached over 55% of beginning classes, and entrants to secondary schools had not reached beyond 45% of the elementary school graduates. Because of population increases over the period, the relative gain in percent of the population enrolled in school still meant a very large group in 1965 not yet accommodated in schools, i.e., 2,600,000 not in school against 3,800,000 in school. Accumulation of populations wholly unschooled in previous years meant that in 1965 the majority of the youthful population (up to age 40) was still unable to read and write, and was unable to take an effective part in developing the economic and social productivity of the nation.

For educational development, at the elementary level, the picture is greatly darkened by the fact that only nine to twelve per thousand of elementary school graduates entered teacher training, meaning that, for every such prospective teacher, there were a prospective 400 or so children in the school age group.
Clearly the elementary school system in Turkey needs great expansion, and just as clearly the present system is not producing the personnel to take on the responsibility. New methods of development are needed.
CHAPTER III

THE PRODUCTIVITY OF THE TURKISH EDUCATIONAL SYSTEM AT THE JUNIOR AND SENIOR HIGH SCHOOLS

I. Junior High Schools:

Before making any observations about the productivity of the Turkish junior high schools, the reader should keep in mind (1) that these schools admit 82 per cent of those attending the first level of secondary schools; (2) these schools are the only educational institutions that prepare students for the second level of the secondary education in Turkey—and are the only avenue into all of the technical, vocational, and professional schools at the senior high school level; and (3) any students who have been "dropouts" from the junior high schools are not permitted to attend any type of schools at the senior high school level at all.

Table 4 reports data about the productivity of the junior high schools in Turkey, as of 1959 to 1964 inclusive.

It should be noted that the proportions graduating are similar to those of the elementary school. The overall average of those who completed the junior high schools is 44.8 per cent of admissions. The other 55.2 per cent became the "dropouts" and "school-leavers." Females have done somewhat better than males (43.4 per cent for males, 49.4 per
TABLE 4
THE PRODUCTIVITY OF TURKISH JUNIOR HIGH SCHOOLS: PROPORTION GRADUATING*
(COHORT GROUPS)

<table>
<thead>
<tr>
<th>School Year</th>
<th>Number admitted to the first year</th>
<th>Number graduated from the last year</th>
<th>% graduating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>1959-1960</td>
<td>75,670</td>
<td>23,825</td>
<td>99,495</td>
</tr>
<tr>
<td>1960-1961</td>
<td>89,925</td>
<td>25,979</td>
<td>115,425</td>
</tr>
<tr>
<td>1961-1962</td>
<td>90,537</td>
<td>27,979</td>
<td>118,516</td>
</tr>
<tr>
<td>1962-1963</td>
<td>92,210</td>
<td>29,662</td>
<td>121,872</td>
</tr>
<tr>
<td>1963-1964</td>
<td>87,663</td>
<td>30,909</td>
<td>118,572</td>
</tr>
<tr>
<td>Averages</td>
<td>87,201</td>
<td>27,574</td>
<td>114,775</td>
</tr>
</tbody>
</table>

*Turkish Ministry of Education, op. cit., p. 23, Table 2.
cent for females) on overall graduation figures.

Another observation is the extreme difference between the number of boys and girls who attended the first years of the junior high schools in Turkey. Though the proportion between the sexes is about equal in the school age population (between the ages of 7 to 14) one-third of the children admitted to the junior high schools are females, two-thirds are males. This means that the females are more disadvantaged than the males at the junior high school level, though after admission, the females have been more successful than the males.

Table 5 compares junior high school graduates with admissions into senior high school.  

While drawing inferences from the tables about the productivity of the senior high schools in Turkey, it should be noted in Table 5 that the number of students being admitted to the first year of the senior high schools has been held constant, even reduced from year to year, especially from 1962 on.

While 74 per cent of the junior high school graduates were accepted into the senior high school in 1960, this acceptance rate reduced, by 1964, to become only 49 per cent.

By inspection, one can see that the production of the girls compared to that of the boys admitted to the senior high school has been very low, running between one-third to one-fourth.

This indicates that the senior high schools have been very selective, and have, in fact, greatly increased their selectivity over the period.

---

2 Turkish Ministry of Education, op. cit., p. 23, Table 2.
## TABLE 5

### COMPARING JUNIOR HIGH SCHOOL GRADUATES WITH ADMISSIONS INTO THE FIRST YEARS OF THE SENIOR HIGH SCHOOLS

(COHORT GROUPS)

<table>
<thead>
<tr>
<th>School year of graduation</th>
<th>Number graduating from Junior High School at the end of year—Spring</th>
<th>Number admitted to Senior High School in following academic year—Fall</th>
<th>% of graduates admitted to Senior High School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>1959-1960</td>
<td>29,136</td>
<td>11,117</td>
<td>40,253</td>
</tr>
<tr>
<td>1960-1961</td>
<td>30,875</td>
<td>11,811</td>
<td>42,686</td>
</tr>
<tr>
<td>1961-1962</td>
<td>37,289</td>
<td>13,418</td>
<td>50,707</td>
</tr>
<tr>
<td>1962-1963</td>
<td>43,169</td>
<td>14,982</td>
<td>58,151</td>
</tr>
<tr>
<td>1963-1964</td>
<td>49,501</td>
<td>17,160</td>
<td>66,661</td>
</tr>
<tr>
<td>Averages</td>
<td>37,994</td>
<td>13,697</td>
<td>51,691</td>
</tr>
</tbody>
</table>

*Turkish Ministry of Education, *op. cit.*, p. 23, Table 2.*
Taking this high rate of selectivity into account, the productivity of the senior high schools cannot be accepted as satisfactory. The loss is too high for Turkey.

II. Senior High Schools:

While reviewing the data presented in Table 6 about the productivity of the senior high schools in Turkey, the reader should keep in mind that the period of 1960 to 1965 was an era of national crisis for Turkey. Political violence, extreme disagreements, nationwide local fights on national aims and civil rights, and economic problems led Turkey into the national revolution of 1960. The nation went through many unexpected calamities and remained in a very difficult situation through 1965. During that confused period, attention was focused on the inefficiency of the educational system, unemployment problems, and problems of social and economic development. These became the main concerns of the nation to be considered in the Government National Planning Department. A new national constitution was developed and adopted to provide equality of opportunity for all citizens and to implement new methods and innovations in education, tax revenues, land and housing, and health and welfare for a planned period, while making new investments for social and economic development. Between 1960 and 1965, the educational system was blamed for much of the nation's social, economic, and educational productivity problems.

The effect of the new focus on education was to increase the productivity of the senior high schools between 1960 and 1965. In 1960, the proportion graduated was 42 per cent for the sexes combined, 37 per cent for the boys, and 47 per cent for the girls; in 1964, the
<table>
<thead>
<tr>
<th>School Year</th>
<th>Number admitted to the first year</th>
<th>Number graduated from the last year</th>
<th>% graduating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>1959-1960</td>
<td>23,092</td>
<td>6,979</td>
<td>8,649</td>
</tr>
<tr>
<td>1960-1961</td>
<td>26,404</td>
<td>7,223</td>
<td>10,201</td>
</tr>
<tr>
<td>1961-1962</td>
<td>26,478</td>
<td>8,038</td>
<td>12,051</td>
</tr>
<tr>
<td>1962-1963</td>
<td>25,235</td>
<td>8,417</td>
<td>14,392</td>
</tr>
<tr>
<td>1963-1964</td>
<td>24,666</td>
<td>8,290</td>
<td>16,874</td>
</tr>
<tr>
<td>Averages</td>
<td>25,175</td>
<td>7,789</td>
<td>12,433</td>
</tr>
</tbody>
</table>

*Turkish Ministry of Education, *op. cit.*, p. 23, Table 2.
proportions had been increased to 72 per cent for the sexes combined, 56 per cent for the boys, and 76 per cent for the girls—a significant increase.

The average productivity of the senior high schools in Turkey over the five time-periods between 1960 and 1964 was 55 per cent for both sexes, 49.1 per cent for the boys and 60 per cent for the girls. This meant that, on the average, 45 per cent of youth failed or dropped out; 51 per cent of the boys and 40 per cent of the girls. This is a heavy loss.

This high rate of dropouts and the inefficiency of secondary education require Turkey to implement some other means such as the testing program proposed in this dissertation for the disadvantaged people to continue their education.

Students dropping out of secondary education form a significant proportion of the Turkish national manpower pool. They should be motivated, guided, directed and served by new means of education in order that they can increase their knowledge, develop their skills, and become productive citizens.

The above group of the disadvantaged people will be considered as the target group of population for the proposed testing program to prepare elementary school teachers.

In summarizing the productivity of secondary education in Turkey, the following can be noted:

A. Between 1960 and 1964, the average production rate of the junior high schools was around one-half, i.e., one-half of those admitted were graduated; the trend was upward (Table 4).
B. Of those graduating, the proportions admitted to senior high school averaged about two-thirds, but the trend was consistently downward, being one-half (49.4%) by 1964 (Table 5).

C. Of those admitted to senior high school, the average production rate was about one-half, i.e., one-half of those admitted were graduated; the trend, however, was strongly upward, being 72% by 1964 (Table 6).

D. While the number of junior high school graduates increased, the admissions to senior high school remained constant, meaning greater selectivity in admissions, allowing higher production rates (Tables 5 and 4).

E. As between the sexes, the girls made up a relatively small portion of the secondary school admissions, being in the ratio of about one girl to three boys, in both the junior and senior high schools. The performance record of the girls on graduations was consistently better (up to sixteen percentage points better) in every year except one (i.e., 1964, J.H.S., Tables 4 and 5).

F. Having in mind the condition in 1964, and recalling the discussion of productivity levels in elementary education, where we used the rough approximation of one-half of one-half of one-half, we can now add for secondary education an extension to the series of one-half of one-half of one-half, as follows:

1. One-half of the elementary age group enrolled; trend upward (averages, Table 1).

2. One-half of the enrollees graduated (subtracting estimated repeaters); trend upward (averages, Table 2).
3. One-half of the graduates admitted to secondary schools; no clear trend (averages, Table 3).

4. One-half of the junior high school enrollees graduated; trend upward (averages, Table 4).

5. One-half of the graduates admitted to senior high school (1964); trend downward (averages, Table 5).

6. One-half of the senior high school enrollees graduated; trend upward (averages, Table 6).

Or, to express these relationships in numbers, it has taken sixty-four children of elementary school age to produce one senior high school graduate.

As in the summary for elementary education, the summary on secondary education has to point out the low productivity levels of the educational system. Though added efforts were made after 1960, the resources for educational development have not been forthcoming. Trends are generally upward, but the personnel is not being provided for modernization or expansion of the educational system at anything like the rate required.

Significant new measures need to be taken to increase the capacity of the educational system.
CHAPTER IV


Some data is available on the main sources of failure, and on the number of those who have failed at different grade levels in junior and senior high schools. Such data is relevant to decisions later to be made about the establishment, development, and implementation of a testing program for the disadvantaged youth and adults in Turkey.

Table 7 provides information about school-leavers from the junior high schools between 1961 and 1965. Six main sources are indicated. Among these, "death," "sickness," and "other reasons" are not subject to much effect from school action, and will not be discussed here. The remaining three sources, "school inattendance," the "certificate," and "failure twice in the same grade" are the most troublesome ones in Turkey.

"School inattendance" refers to students who left school without any notification. The school administrators have no data on the "why or how" of leaving.

---

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
<td>Male</td>
<td>93</td>
<td>88</td>
<td>88</td>
<td>64</td>
<td>333</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>16</td>
<td>22</td>
<td>19</td>
<td>12</td>
<td>69</td>
</tr>
<tr>
<td>Sickness</td>
<td>Male</td>
<td>193</td>
<td>168</td>
<td>194</td>
<td>155</td>
<td>710</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>123</td>
<td>56</td>
<td>72</td>
<td>102</td>
<td>353</td>
</tr>
<tr>
<td>School In-attendance</td>
<td>Male</td>
<td>4,710</td>
<td>5,239</td>
<td>5,380</td>
<td>5,295</td>
<td>20,624</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>871</td>
<td>952</td>
<td>1,062</td>
<td>1,124</td>
<td>4,009</td>
</tr>
<tr>
<td>Certificate</td>
<td>Male</td>
<td>9,361</td>
<td>9,071</td>
<td>8,648</td>
<td>7,533</td>
<td>34,613</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3,061</td>
<td>3,669</td>
<td>3,210</td>
<td>3,128</td>
<td>13,068</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure Twice</td>
<td>Male</td>
<td>9,065</td>
<td>9,028</td>
<td>14,998</td>
<td>10,682</td>
<td>43,773</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>1,729</td>
<td>1,835</td>
<td>3,730</td>
<td>2,817</td>
<td>10,110</td>
</tr>
<tr>
<td>Other</td>
<td>Male</td>
<td>185</td>
<td>224</td>
<td>211</td>
<td>105</td>
<td>725</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>31</td>
<td>9</td>
<td>33</td>
<td>12</td>
<td>85</td>
</tr>
<tr>
<td>Totals</td>
<td>Male</td>
<td>23,607</td>
<td>23,798</td>
<td>29,519</td>
<td>23,834</td>
<td>100,778</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5,831</td>
<td>6,542</td>
<td>8,126</td>
<td>7,195</td>
<td>27,694</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>29,438</td>
<td>30,360</td>
<td>37,645</td>
<td>31,029</td>
<td>128,472</td>
</tr>
</tbody>
</table>
"Certificate" refers to students dismissed from the system by official action. One cause is marriage; no married student, boy or girl, can attend secondary schools in Turkey. The certificates are also used for disciplinary purposes—theft, alcohol, gambling, improper appearance, etc.

"Failure twice in the same grade" refers to students dismissed under a regulation that prevents any student continuing with his education if he fails twice in any one grade.

The data in Table 7 show that during 1961 to 1965, 20,624 boys and 4,009 girls have left the schools for the "inattendance" reason; 34,613 boys and 13,068 girls left school by "certificates"; and 43,773 boys and 10,110 girls terminated their education by the reason of "failure twice in the same grade."

The overall figure for the last three reasons of the failure is 126,197 for both sexes from 1961 to 1965 period.

Data about "school-leavers" at the senior high schools is presented in Table 8. The overall results are very similar to those of the junior high schools of Turkey ("school inattendance," the "certificate," and "failure twice in the same grade").

Overall, 43,223 youngsters terminated their education at senior high school level between 1961 and 1965. The most wasteful year was 1963-1964, and the least wasteful year 1964-1965. It should be noted that the failure rate was very high for the males compared to females.

As with the junior high schools, the senior high schools produce a high rate of loss because of drop-outs ("inattendance"), dismissals ("certificates"), and failure of repeaters ("failure twice
### TABLE 8

SCHOOL-LEAVERS AT SENIOR HIGH SCHOOL LEVEL IN TURKEY*

<table>
<thead>
<tr>
<th>Reasons For Leaving</th>
<th>School Years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sickness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>107</td>
<td>73</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Inattendance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1,231</td>
<td>1,347</td>
</tr>
<tr>
<td>Female</td>
<td>192</td>
<td>187</td>
</tr>
<tr>
<td>Certificate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3,769</td>
<td>3,937</td>
</tr>
<tr>
<td>Female</td>
<td>1,189</td>
<td>1,257</td>
</tr>
</tbody>
</table>

*Turkish Ministry of Education, Milli Egitim Istatistikleri, p. 6.
<table>
<thead>
<tr>
<th>Reasons For Leaving</th>
<th>School Years</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure Twice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3,101</td>
<td>3,180</td>
<td>4,654</td>
<td>3,341</td>
<td>14,276</td>
</tr>
<tr>
<td>Female</td>
<td>662</td>
<td>644</td>
<td>1,154</td>
<td>797</td>
<td>3,257</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>208</td>
<td>292</td>
<td>183</td>
<td>206</td>
<td>889</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>39</td>
<td>4</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8,450</td>
<td>8,863</td>
<td>10,032</td>
<td>7,324</td>
<td>34,669</td>
</tr>
<tr>
<td>Female</td>
<td>2,072</td>
<td>2,140</td>
<td>2,446</td>
<td>1,896</td>
<td>8,554</td>
</tr>
<tr>
<td>Both</td>
<td>10,522</td>
<td>11,003</td>
<td>12,478</td>
<td>9,220</td>
<td>43,223</td>
</tr>
</tbody>
</table>
in the same grade). It is fair to estimate that the losses from these causes run at 44,000 per year for the junior and senior high schools combined. In a decade, this means the loss of 440,000 youth to junior and senior high schools in Turkey.

Many of these youth would doubtless be candidates for re-entry into secondary education if a supplemental system were supplied to enable them to begin their studies again. This is a need to be taken into account when designing the work of the proposed agency for educational development.
CHAPTER V

THE MAIN REASONS FOR EDUCATIONAL FAILURE IN TURKEY

Basically, there are three sources of failure in the educational system in Turkey:

I. The centralized mechanism of the Ministry of Education.

II. The shortage of personnel in education.

III. The unbalanced distribution of educational opportunity in Turkey.

1. The Centralized Mechanism of the Ministry of Education:

The structure of the administrative mechanism of the Ministry of Education was derived from the Western nations of Europe during the 1920's and 1930's, and it has been maintained through the 1960's without any revision or change.

According to this centralized structure, the political party in power selects its Minister of Education. The new Minister appoints his Undersecretary from the same political party and the Undersecretary appoints his General Directors for all levels of education. This order comes down to the Superintendents of public schools and the Principals of the elementary and secondary schools. So, all the leaders must be from the same party or be under the power of those from the political party in power.
Each General Directorate in the Ministry of Education prepares all the rules and regulations related to his area and presents these proposals to the Board of Education, whose members are appointed by the Undersecretary and whose appointments are approved by the Minister of Education. Whatever proposals have been accepted by the Board of Education go back to the Minister of Education for final approval. If those rules are approved, then the related divisions will put them into practice all over Turkey. The above pattern is practiced all over the nation until a new Minister, a new Undersecretary, and the rest of the administrators are appointed to their new posts.

The discipline problems; the textbooks and supplementary materials; the promotion of educational personnel; the number and kinds of subjects to be taught at each level of education and in each grade; the content of each subject and the topics to be chosen for each subject; the daily time schedules for all levels of education; the kinds of examinations to be given and the reporting system, are always prescribed by the Ministry of Education and implemented in the same way at all educational levels in Turkey.

This irrelevant and inefficient mechanism of education does not give the chance for local and regional needs, demands, and cultural patterns to be considered while preparing educational curricula, teaching methods, and practical policies.

There is no chance for personal initiative, experimentation, and adoption of new innovations in Education.

The centralized educational system was controlled by the Republican Party from 1923 to the 1950's, and then by the Democratic
Party (with many opposite policies) until that party's corruption in 1960. From the 1960's on, it has become a confusing matter among nine political parties, but still its centralized aspect is as strong as it was during the 1930's.

The main obstacles of the centralized Turkish educational system are as follows:

A. Educational responsibility is left to the State, not to citizens and regional localities, or authorities.

B. Public education is granted free of tuition, including college and higher education; the state is not able to support it properly. The budget of the Ministry of Education is the only source of income for the whole educational sector in Turkey.

C. The provision of all demands (personnel, school buildings, educational facilities and materials), as well as the maintenance of everything, is controlled by the Ministry of Education or operated according to its rules.

II. The Shortage of Personnel in Education

Despite the efforts being made during 1960 to 1970, Turkey is only able to accept fifty per cent of the elementary school age population into schools, and is not able to provide teachers for the remaining fifty per cent of the grade school age population.

The shortage of personnel had forced Turkey to a three-shift system of teaching in the majority of the elementary and secondary level public schools. Even so, Turkey can graduate only half of the enrolled elementary school children, wasting the other half before graduation from the fifth grade.
Mainly because of teacher shortage, Turkey has not been able to accept more than half of the elementary school graduates into junior high school level institutions, and again, has only graduated one-half of the junior and senior high school enrollees. This half-admission and half-graduation pattern has been experienced at all levels of education up to the 1970's.

There has been no provision of clerical and specialist personnel in the elementary schools of Turkey. Nurses, nurse aids, guidance counselors, school psychologists and measurement specialists are not provided to the schools of the nation up to the 1970's.

There is no provision of the specialist teachers such as music, physical education, fine arts, and home economics to teach in elementary schools.

All the above services are expected from the regular or substitute classroom teachers.

There are over 40 thousand villages in Turkey, but only 25 thousand of them have one school building and one teacher in each school; about 15 thousand villages are without school buildings and teachers.

Over 20 per cent (in some regions 40 to 60 per cent) of the teachers are substitutes, without any professional preparation in education; and a great majority of the substitutes are no more than junior high school or elementary school graduates. Most of those substitutes are teaching in geographical areas in which the regular teachers do not want to teach. Being the only teacher in many schools, they are not able to get any help from experienced teachers.
Since the main objective of the new agency is to provide educational opportunity to "out of school youth and adults," and to prepare teachers for the elementary schools, the shortage of education personnel is clear argument for the implementation of the new testing program for educational development in Turkey.

Looking more specifically at the personnel problems at the secondary level of education in Turkey, several matters need to receive attention.

All the subjects for each grade and each level of the secondary education are prescribed by the Ministry of Education and required of each student for the same number of hours per week. There is no elective system in Turkish secondary schools.

From the data presented in Chart 1 (weekly schedule of the subjects for the junior high school), it can be seen that every student is held responsible for 15 different subjects, and has to attend classes for 32 hours per week.

From the number of subjects given in the weekly schedule of the junior high school it is clear that no matter how small a school is, there have to be sixteen different subject-specialized teachers in one school to cover all areas. For the Foreign Language (English, German, and French) each school needs three teachers. For a small-size junior high school in the rural areas, Turkey has to provide twenty different teachers at least.

The problem of not being able to find expert or qualified teachers for most of the subjects at the secondary level has forced the Ministry of Education to hire substitute teachers from outside
<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Weekly class hours for each subject in each grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Turkish Language</td>
<td>6</td>
</tr>
<tr>
<td>History</td>
<td>2</td>
</tr>
<tr>
<td>Geography</td>
<td>2</td>
</tr>
<tr>
<td>Social Science</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics</td>
<td>5</td>
</tr>
<tr>
<td>Physics</td>
<td>-</td>
</tr>
<tr>
<td>Chemistry</td>
<td>-</td>
</tr>
<tr>
<td>Natural Science</td>
<td>3</td>
</tr>
<tr>
<td>Commerce</td>
<td>1</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1</td>
</tr>
<tr>
<td>Hand works (boys)</td>
<td>2</td>
</tr>
<tr>
<td>House works (girls)</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>Drawing</td>
<td>1</td>
</tr>
<tr>
<td>Music</td>
<td>1</td>
</tr>
<tr>
<td>Free Time</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours per Week</strong></td>
<td>32</td>
</tr>
</tbody>
</table>

in order to fill the vacancies. This problem will be discussed later
at some length.

There is a very peculiar system of student promotion at the
secondary school level in Turkey, and it has a marked effect on the
number of drop-outs. If a student fails to pass in one subject out
of all required subjects at any grade level and passes the rest of
the subjects, such a student will not be promoted to the next higher
grade until he passes the subject in which he failed. For this
failure, the student has to repeat the same grade and subjects for
the next year. In many cases, such students will pass the subjects
in which they had failed in the last year but will fail in the
subjects that they had passed in the previous year. This results
in "Failure Twice in the Same Grade" for many students.

Reform in this practice is not likely to come about unless
the supply of teachers is increased to accommodate increased enroll­
ments. Reform, generally, is not likely to come about unless there
is increased supply of personnel, not only in teaching, but in the
services of evaluation, planning, curriculum building and research.
Turkey has not been able to provide well-prepared teams in these
areas, and so lacks the skills necessary to the design and operation
of new programs.

While the schools have remained traditional, Turkey has be­
come urbanized and modernized in important sectors of its economic
and social life. New occupations are forming in banking, trans­
portation, business, industry, and agriculture. Yet the subjects
offered in the curriculum have not changed to meet the new needs.
Turkey has not been able to prepare teachers for industrial arts, electronics, data processing, typing, driver training or other emerging activities.

The offerings of the junior and senior high schools are relevant only to the classical type of universities which are themselves more out-moded, year by year. While Western type modern universities and colleges are gradually growing, and are greatly needed, the secondary schools are unable to supply the desirable preparation for students admitted to them.

One of the objectives of the proposed testing program should therefore be to meet the modern needs. For the disadvantaged youth and adults, this is especially important since they need to succeed in the work world as well as in schooling if they are to hold their gains.

III. The Unbalanced Distribution of Educational Opportunity in Turkey

Educational opportunities for youth vary widely among the varied geographical regions of Turkey. This has been traditional, and is now accentuated by the growing difference in level of development among the regions.

Dividing the nation in half, geographically, the eastern half has been sorely neglected while the western half has been highly favored. This is true not only in educational opportunity, but also in other services necessary for a better life and living, such as railroads, highways, factories, and modern agricultural facilities.

It has been easy for Turkey to neglect the eastern peasant and the low income groups in the sparsely settled regions while, at the same
time, committing resources to serve people in the densely settled and urbanized wealthier regions of the west.

One significant effort was made between 1940 and 1950 to improve educational opportunities in the rural villages through the "Village Institutes Movement." These practical school-community teacher-training centers were able, in little more than a decade, to reduce the illiteracy rates in eastern Turkey from 92% to 85%. Despite the obvious value of these institutions, they were abruptly disbanded for political reasons.

As of the present (1970), the illiteracy rate in western Turkey runs between 25% and 40% for various provinces, while, in eastern Turkey, it is 90%. This kind of gap between the two regions is reflected in statistics on the qualifications of teachers:

(1) Twenty-five per cent of secondary education teachers in Turkey are "University Graduate Regular Teachers"; 95% of this group are teaching in the 20 western provinces; only 5% are teaching in the 47 provinces of the eastern region. There are many provinces in the east without a single college graduate on their teaching rolls.

(2) Ninety-five per cent of the western provinces have a sufficient supply of science and foreign language teachers, absorbing 80% of the teachers of these subjects, leaving but 20% for the 47 eastern provinces.

(3) While the teachers in the western localities remain an average of 10 to 20 years in the same schools, the eastern teachers remain only one or two years in the same schools, after which they transfer to western schools or resign from the teaching profession,
often to enter private business in the western cities.

(4) The percentage of substitute teachers in the eastern part of Turkey is about four to six times higher than in the western part. The qualified university-graduate teachers come predominantly from the western region where they have had opportunity to progress in their education. They are accustomed to modern conveniences: electricity, radios, newspapers, entertainment in movies and theaters, parks, restaurants, airlines, railroads, highways, telephones, etc. They do not wish to go to eastern Turkey where cultures are different, languages are different, and living conditions are quite primitive. Though individual teachers may, on occasion, make the sacrifice, they are unwilling to remain and rear their own families under such deprived circumstances. No extra benefits are offered in better salaries, shorter periods of promotion, free room and board for their families, or other compensatory pay. Yet, in the west, it is often possible for teachers to earn extra pay by taking two or more teaching posts at the same time, to shorten the time for promotion by taking a position in a competing location, to get room and board for their families because boarding schools are available, etc.—privileges not available to teachers in the scattered and poor villages of eastern Turkey.

The extent of the difference in educational opportunity between the eastern and western regions is shown in Chart 2, where the provinces are ranked in order according to their standing on an index computed from 47 measures, the 18 most important of which are the following:
## CHART 2

**EDUCATIONAL OPPORTUNITY IN TURKEY, 1964**

*(AVERAGE IMPACT OF 47 MEASURES)*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Province</th>
<th>West</th>
<th>East</th>
<th>Rank</th>
<th>Province</th>
<th>West</th>
<th>East</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Istanbul</td>
<td>x</td>
<td></td>
<td>14</td>
<td>Manisa</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Izmir</td>
<td>x</td>
<td></td>
<td>15</td>
<td>Icel</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Eskisehir</td>
<td>x</td>
<td></td>
<td>16</td>
<td>Bilecik</td>
<td>x</td>
<td></td>
</tr>
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(1) The number of students per teacher at the elementary and secondary levels of education.

(2) The qualifications of the teachers (schooling, experience, and specialization).

(3) The number of teachers in the specialized fields of art, music, physical education, etc.

(4) The level and type of education which the teachers had completed (teacher-training, university, technical and vocational, and specialization).

(5) The number, the educational levels, and the experience of the substitute teachers.

(6) The regular and substitute teachers' mobility.

(7) The distribution of the male and female teachers.

(8) The average salaries of teachers.

(9) The enrollment capacity of school buildings in relation to the number of students enrolled.

(10) Main educational facilities and materials (libraries, laboratories, supply of textbooks and related materials).

(11) The number and type of schools (technical, vocational, academic, and professional).

(12) Enrollment of the students in each level of schooling.

(13) The number and type of private schools.

(14) The student enrollments in public room-and-boarding schools at the secondary level.

(15) The financial support from the Ministry of Education (building new schools, providing money for the necessary services).
(16) The number of students admitted to higher levels of education on competitive national examinations.

(17) The number of students entering professional schools (such as Law, Medicine, and Political Science), and technical universities.

(18) The number of higher government positions being held by graduates from each province (governors, mayors, deputies, university professors, medical doctors, lawyers, and judges).

The data for Chart 2 is based on the year 1964. The gap then evident between the east and west is greater now due to the accelerating modernization of the west, while the east has developed very little. Indeed, the west drains the best educated from the east, and leaves the east with even less competent personnel.

Unless efforts are made to provide new programs to serve the masses of disadvantaged in the east, the nation cannot develop as a healthy whole.
CHAPTER VI

SUMMARY PERSPECTIVE ON THE PRODUCTIVITY AND NEEDS OF THE TURKISH EDUCATIONAL SYSTEM

In Part I, attention has been given to data on population and school enrollments, causes for failure and drop-out of students, the nature and operation of the centralized system of education, the state of teacher supply and training, and the distribution of educational opportunity by geographical regions.

From this review has come a picture of an educational system that is greatly limited in the population it reaches, is inefficient in the population it serves, is rigid in its administration, is unresponsive to the varied needs of its people and the emerging needs of the nation, is lacking in resources and personnel, and is unbalanced in the educational opportunity it offers to the geographical regions.

From this view, it is clear that new agencies and programs are needed which can:

(1) Extend the reach of the educational system: at present, little more than half of the children can enter first grade; three-fourths of the children never complete elementary education; uneducated or ill-educated adults have no opportunity to attain functional literacy.
(2) Serve the disadvantaged; as of now, the national policy does not accept responsibility for providing education to out-of-school youth or adults; these people compose the bulk of the population.

(3) Reduce the loss among the students attending school; half fail or drop out of school at each level of education--elementary, junior high school, high school.

(4) Better meet the needs of students as learners: regulations now require of a student that he be successful in all subjects for promotion in grade, and the repetition of all subjects if he fails in one; this leads to heavy losses; it is an example of insensitivity to the proper conditions for learning.

(5) Increase the supply of teachers: regulations require different teachers for different subjects; staffing a school is costly; talent is wasted; substitute teachers can be assigned to non-teaching duties for political reasons; students who could teach and would teach are available but not able to enter teaching for arbitrary reasons.

(6) Increase the quality of teacher training: teachers are untrained or ill-trained in subjects which relate to understanding pupils as learners, or to understanding the society in which the students are to function as active producers.

(7) Increase the supply of professional personnel required for developing education in the nation--evaluators, planners, curriculum-builders, researchers, leaders: such personnel are now in short supply and there are no programs for their development in a
concerted effort to build a more adequate educational system.

(8) Better meet the needs of local communities with their varied languages, cultures, and living conditions: regulations allow the use of but one language in teaching (Turkish), the offering of but one standard curriculum in each type of school, one sequence in which the courses are offered, etc., despite the wide variations of conditions, cultures and languages in which the children are reared and are to live.

(9) Generate local interest and initiative: as the educational system operates now, directives come from a centralized authority which depends ultimately on the political system, without responsibility back to the local communities (except in superficial political terms); education is not viewed as the business of the people, to serve the people in their personal and social development.

(10) Better meet the economic and social needs of a modernizing society: the educational system is dominated by tradition and is now inflexible in its response to the emerging economic and social needs which come with a developing Western society.

(11) Work toward a balancing of educational opportunity as between regions: currently, eastern Turkey is getting less than its share of educational resources even though it needs more than its share in order to take productive part in the development of the total society of the nation; the western region is favored, and the gap between the east and the west is accelerating.

(12) Increase the range of programs by which students can get to their objectives: as of now, the only means offered are those of
the presently operating schools; there are no correspondence courses, evening schools, summer programs, etc., by which to arrive at the same goals by alternate means.

(13) Widen the range of teaching materials and teaching methods; all teachers are now required to use the same textbooks and materials, teaching in the same pattern, in the same sequence, etc.; supplemental reading, audio-visual materials, altered class groupings, etc., could greatly enhance the chance for learning.

(14) Capitalize on resources available: use to their limit the physical and staff resources which are now often used but partially; open schools in the evenings and summers; employ regular teachers in supplemental programs for supplemental pay to teach drop-outs, using new curricular materials and teaching methods; use experienced teachers in the community for supplemental teacher-training; etc.

(15) Operate at minimal cost to students and state: most students have little money; present educational programs take a significant portion of national resources; new programs need to be designed so that they function on margins, and, as they provide service, they point to economies which could be effected in the regular system if the newer practices were adopted.

(16) Provide a place for innovation and experimentation in an otherwise rigid system: innovations are now choked out; new agencies and programs need to be so placed that they can be seen as new and promising means of benefiting the people.
(17) Develop education as a professional field, with educators primarily responsible to the people for the developing welfare of the people: presently, education is the ultimate tool of political parties, and is left to the operation of a centralized government; the people have little reason to support the educational system either financially or morally—it is seen as belonging to somebody else; new programs need to be established in close relation to the needs of the people and in acknowledged collaboration with them.

(18) Provide a flexible possibility for growth: new programs should be fitted where they can be introduced; they should grow no faster than their gains can be consolidated; they should respond where energy is available to do them; the intent needs to be sound evolution, not revolution.

With these needs in mind, attention now turns, in Part II, to the design and operation of a proposed new agency to aid in the developments required.
PART II

THE NEW AGENCY FOR EDUCATIONAL DEVELOPMENT
CHAPTER VII

ESTABLISHING THE INITIAL AGENCY

As the first act, the Ministry of Education would appoint a Director of the Test Development Center and a temporary committee to work with him in the preparation of the official proposal for formal establishment of the agency.

This chapter presents a working document to which the Director and the committee could give attention in preparing the proposal. It is divided into sections according to major tasks:

I. To outline the initial organization of the center: in the recruitment of professional and non-professional personnel, assignment of roles, jobs, and services; identification of the long-range and short-term tasks for each person or group of persons; the costs involved in each task or program; and the general management of the new agency for the implementation of the new programs to be developed.

II. To determine the potential population of out-of-school youth and adults to be served, and to propose kinds of programs that might serve them: i.e., to determine the number, educational level, location, interests, capabilities, work experiences, types of programs desired, etc., of the potential population to be served, and to propose the kinds of programs, e.g., night schools, summer schools,
seminars, correspondence courses, individual studies, etc., by which these disadvantaged people might be served.

III. To determine the potential occupational opportunities for the recruitment of those who might be served by the program of the agency: i.e., to locate the kinds of jobs or occupations available, the demands for workers in each, the quality of education and kind of skills needed for each job, the accessibility of jobs for potential workers, the time when occupational opportunities would be opened, the duration of jobs of various kinds, the time period and amount of money required for preparing the needed number of people for each job, and the possibility of financial support from the prospective employers for the education of the needed workers.

IV. To establish principles by which to develop the program: i.e., to specify policies, strategies, and procedures for the overall management of the center and for the implementation of the program; to plan the progressive development of work in all divisions of the agency, all modes of the program, all sectors of the disadvantaged population, and related aspects of the world of work available to the prepared people.

V. To analyze sources of support for and opposition to the development of the work of the agency: to foresee problems in getting agreement and initial support for the agency; to classify the main sources of support for the agency in the short-run and in the long-run periods of development; to assess the possibilities for contribution from the government, from prospective and actual employers,
from the students, from social organizations and institutions, etc., to identify sources of likely opposition.

VI. To prepare an "example" of a specific testing program for the agency to show how it might work in serving one area of need: i.e., in preparing teachers for the elementary schools.

The organization for the handling of these six tasks will be covered in the remainder of Chapter VII and VIII.

1. To Outline the Initial Organization of the Center

See Chart 3 for the overall plan of administrative organization.

The role of the Director: The highest responsibility and authority for the total operation of the Test Development Center resides in the Director's position. His office is the main channel for communication to the proper offices and officials of the Ministry of Education, and to the outside agencies in relation to the services of the center. The Director is also the main advisor to the Associate Directors regarding all official and professional procedures, policies, processes, and practices of the program to be developed, implemented, and evaluated.

The roles of the Associate Directors: There will be four associate directors under the leadership of the director. Each associate director will have direct authority regarding the professional aspects of his division. He will run his own part of the services, and will be responsible for communicating with other
CHART 3
ORGANIZATIONAL CHART FOR THE TEST DEVELOPMENT CENTER

DIRECTOR

ASSOCIATE DIRECTORS

Administration and Management
To provide overall management of internal operations
(5 or 6 persons)

Identification of Population to be Served
To locate out-of-school youth and adults to be served by educational programs
(6 or 7 persons)

Identification of Occupational Opportunities
To locate potential job openings and determine their educational requirements
(5 or 6 persons)

Instructional Program Development
To construct instruments and related teaching materials
(10 or 12 persons)
divisions of the center and with the agency director regarding any official or professional matters to be solved together.

The administrative associate director will hold the second position of authority in the center and will be the person to whom the other three divisions will communicate in order to provide a flexible processing of interrelated matters and activities of the center. He will be responsible for the overall management of the center, for the job plans and performance of the non-academic personnel, for budget monitoring and reporting, for personnel records and policies, for internal management and evaluation of the services within the center, for providing such administrative services as space, filing, equipment, transportation, mail, etc., as required by the center.

The responsibilities of each division will become more apparent in what follows.

II. To Determine the Potential Population to be Served and the Services They Desire

The whole purpose of the center is to serve disadvantaged out-of-school youth and adults with educational programs that can benefit them. Responsibility for determining this population and their educational needs will rest with the associate director for the division concerned with needy "out-of-school youth and adults." The classification of those who can benefit from the program will define the load and the kinds of tasks to be undertaken by the agency. This work will fall into the following tasks:
A. To identify the disadvantaged people: to locate sources and means by which to gain information on the number, age, sex, location, educational level, work experience, etc., of potential participants, including their desires for educational programs. Initial sources to be consulted would be the Statistics Division of the Ministry of Education for the lists of school-leavers and drop-outs, the Government Statistics Institute for all national statistical data, the individual Boards of Education in each province and city for the yearly school-leavers and drop-outs. In addition, services could be rendered by the mass media in broadcasting by television or radio, in newspapers and magazines, etc., to announce the program of the agency, to secure public interest, and to gain additional avenues of information. Individual schools and their parent-teacher associations, or local community centers, could be contacted for better screening of individuals. All the above sources could become involved in the identification process, and could contribute to the support of the program in their areas of activity.

B. To classify the disadvantaged people by the kind of educational program they desire and could benefit from; to create the questionnaires, interview scales, evaluation forms, etc., as required to fit potential personnel to potential programs; to plan means by which the work might be carried out in getting the necessary data in specific localities; to prepare a summary overview of the possible program needs.

C. To decide on the types of educational opportunities that should be implemented when taking into account the potential
populations to be served; to choose among night schools, seminars, summer schools, correspondence courses, individual studies, practice-on-the-job, working in trade schools, attending private schools, etc., in fitting the needs of various populations.

D. To integrate decision-making on desired programs with the data supplied by the division of the center which is investigating occupational opportunities for those who might complete work on the educational programs.

III. To Determine Potential Occupational Opportunities

This is the responsibility of the division for "Occupational Opportunity." Several tasks are required:

A. To determine the areas in the nation's economy which demand a high number of well-prepared, skillful personnel of diverse kinds—specialists, managers, operators.

B. To foresee the developing occupations which will require newly trained personnel; to specify the main qualifications for these emerging positions and to anticipate the training and educational programs likely to be required.

C. To communicate with, and cooperate with, the government employment agency in securing the kinds of information required on the labor force and its educational needs.

D. To create instruments which help to secure and relate data on occupational vacancies, demands, qualifications, etc., to the training and educational needs of prospective workers—questionnaires, interview forms, tests, etc.
E. To collect, organize and analyze data relative to occupational opportunity and cognate educational need for guidance of the agency in determining its programs of testing and educational preparation.

F. To locate sources of support for the work of the agency from among the users of the products of the agency.

IV. To Establish Principles by Which to Develop the Program

The establishment of the new agency will require a significant change in the present outlook and policies. At the present time, the educational system is viewed, not as an agency for the on-going development of Turkey, but as a bureaucracy to be operated for the benefit of those who secure appointments in it. The structure is rigid and arbitrary. Though half of the children of school entering age do not have access to schools, there is little effort to create schools that could service them. Children who fail in school are regarded as "failures" who have no rights to further education. Adult education is virtually unknown. There is no concept of the "disadvantaged" as a potential source for the development of the nation. Professional standards are poorly developed. The curriculum is uniform and inflexible. Allowances are not made for differences in the background of various cultural sub-groups or of individuals. Levels of achievement vary widely. The teaching is often pedantic and artificial, reflecting the period when subjects were to be committed to rote memory. Political powers see the educational system as an instrument for political uses. Little attempt is made to relate the program of the schools to the economic and social needs
of the nation.

The establishment of the new agency would call for an about-face on these traditional conceptions. There would be need to gain enough support among educators, within the government, and within influential sectors of the public, to allow for the initiation of the agency, based on the following principles:

A. Education of the disadvantaged, including out-of-school youth and adults who want to continue with their education.

B. Maximum use of present educational facilities, including usage of the schools during summers and after school hours.

C. Autonomy of the agency in employing professional personnel, and in establishing professional standards.

D. Freedom to communicate directly with local educational institutions and to set up programs of the center in them.

E. Freedom to set up a system of "equivalent credits" by which students can progress through the work they do in the center's programs, and be accepted for admission into the regular schools for their continuing education.

F. Freedom to set up a flexible system for transfer of students from one locality or program to another without undue loss of prior educational or financial investment.

G. Freedom to develop and offer "electives" for students wanting them.

H. Freedom to grant certificates and diplomas for those students completing specified programs.
I. Freedom to foster the development of new programs of education which are fitted to the specific needs of the emerging economy and society.

J. Freedom to contract with businesses, professional organizations and institutions for the creation of tests, evaluation instruments, text materials, etc., to serve their particular needs.

K. Freedom to purchase and use modern machines and materials, e.g., IBM machines for data processing, printing and duplicating machines for preparing tests and teaching materials, audio-visual equipment for teaching, etc.

L. Freedom to promote the program through access to the mass media.

V. Analyzing (A) The Sources of Support for and (B) Opposition to the Program

A. Analyzing Sources of Support for the Program

No innovation can be established, developed, and institutionalized for a nation's educational, social, and economic development without assurances of proper and continuous resources needed to support such innovation. In Turkey's case, inefficient financial support has been one of the most important handicaps to educational development in the past as well as during the 1970's. As a result, educational institutions have been unable to prepare the personnel needed for educational functions. Personnel is short in quantity, quality, and specialization for educational research, development, evaluation, and guidance. Financial problems have made it impossible for Turkey to build school buildings for the half of the school age
population at all levels of education. Out-of-date and ineffective educational curricula at all levels of education, poor teaching methods and poor instructional facilities are also the result of financial difficulties.

The new agency, with all its modes of operation, is an inexpensive educational institution for Turkey. It will make extensive use of existing educational institutions, their facilities and personnel during free time, such as at nights, in summers, and after daily school hours.

The financial support for the agency can come from the following sources:

1. Government budget allocations: basic support for the agency should come from the Ministry of Education and the Ministry of Labor; support from these sources should cover professional personnel and their supportive staffs, physical facilities, equipment, and operating costs for the core activities of the program.

2. Assessments from agencies directly benefiting from the operation of the regular programs of the center; these agencies could be commercial, industrial, professional, social, or governmental; they should share costs with the center when the center programs provide workers who would not otherwise be available.

3. Contracts for specific services: the center would be able to earn some income through services it can render to private and public agencies on a contract basis for test and instrument construction, preparation of teaching materials, seminars, evaluation programs, consulting, etc.
4. Student fees: the candidates themselves would be an important source of support; a reasonable fee can be asked for the examinations and teaching materials; a fair amount of tuition can be charged for seminars, night classes, and other similar services of the agency.

5. Grants and gifts from international agencies: some funds might be obtained from international foundations, foreign aid programs of such countries as the United States, agencies of the United Nations, etc.; these sources could be important in assuring the autonomy and professional character of the center, especially during its period of development.

B. Analyzing Opposition to the Program

The history of the Turkish nation is full of unbelievable examples of opposition to many great changes and innovations. During the Ottoman Empire, Turkey had to wait over 450 years for religious permission to import and use printing machines for national services. Opposition came from the Islam religion whose rules and regulations did not condone either imports from Europe or the use of printing machines.

Western educational patterns (educational philosophy, pedagogy, psychology, and teaching methods) were not permitted until after the establishment of the Turkish Republic (1923). Before that time the mechanism of education was managed according to the Islam Code of religion: the content to be taught, the methods of teaching, the attitudes toward students were all narrowly prescribed, primitive in tone, and as nearly opposite to the Western pattern as can be
imagined. Every aspect of education was viewed in a different way or opposite way to that provided by the Western pattern; the opposition was so strong that no one could change those patterns until the Ottoman Empire crumbled. Those out-moded patterns of education were stronger than the Ottoman Empire; they lasted longer. Educational curricula, subjects taught, teaching methods, modes of discipline, and teacher preparation were based upon the rules of Shariat, the Islam Code.

Many great Turkish men have visited the Western nations of Europe and have tried to change the Turkish pattern, but many were put in jail for their efforts.

Even after the Ottoman Empire, opposition persisted during the Turkish Republic as well, but in different ways and for different reasons. During 1920 to 1930, educational testing and measurement movements were introduced into the Turkish educational system, but very soon were abolished because they were seen by the higher authorities of the Ministry of Education as "American Methods," not proper or relevant for the Turkish educational system. It was not until 1955 that testing and evaluation were re-established by a group of educators from the United States and Turkey. This last effort has provided to Turkey the largest educational testing, research and measurement bureau in all the Middle East and Southern Europe, and now it serves Turkey for all levels of education, including the universities.

From time to time, Turkey has invited the most promising authorities in education or economics to establish a new pattern
for national development; in many cases, very important plans, reports, and documents have been prepared and presented to the highest authorities of the Ministry of Education or to the Government officials, but none of those innovations have been put into practice. For example, Turkey has been one of the very few nations to invite John Dewey (1924) to advise the government and the Ministry of Education about a modern pattern of education. John Dewey's report could be accepted for educational development in Turkey even for the 1970's, but it has not been put into practice at all. Because John Dewey had pointed to the irrelevancy of Turkish secondary education for the youth of the nation, the inappropriateness of the subjects taught, and the ineffectiveness of the teaching methods (which has been based on pure memory), opposition to the report formed among secondary education people, and the report was buried forever.

The Government Planning Department has not been a safe place for many scholars to develop new plans and procedures for implementation of new practices, such as modern land and taxation reforms, for the nation's social, economic, and educational development, simply because of strong opposition from varied political fronts. After working in the planning department, many scholars have either left the country or have committed suicide.

During the 1940's to 1950's, the "Village Institutes Movement" was a vital force in Turkish education; over 75 of these teacher training schools were established in all regions of Turkey; these institutes provided 80 per cent of the teacher supply in the fields of elementary, health and agricultural education. They were
successful and sound, obviously benefiting the villages while also leading the way toward needed cultural, social, and educational reform. But after about ten years of vital work, they were abolished within one week by political action, based on the people's ignorance of the issues at stake. Even Ismet Inonu, the second most influential man in Turkish history, was not able to hold his hands on the village institutes and save them from unfair attack and ultimate destruction.

The reason for offering these examples of what has happened to innovations in Turkey is that, when undertaking another, one should not ignore or overlook forces of possible opposition. The new agency will neither develop nor become productive unless the government and society can understand and support it against thoughtless attack.

The opposition to the program would probably come from the following sources:

1. From inside the Ministry of Education where some officials would want to protect their present interests and influence rather than to share resources in getting the new agency established. They would not want to grant to the center the autonomy it would need for its sound development and operation.

2. From private agencies which may form to seek private gain from offering similar but more expensive and superficial programs. These agencies would try to influence the officials of the Ministry of Education and some political parties, or their organs, to curtail the activities of the center.
3. From the world of work where private employers have gotten used to employing the disadvantaged on low wages, and who would see the program of the new agency as more of a threat than a benefit. They would not want to increase wages or to share costs in the education of the disadvantaged.

Understanding, patience, and persistence would be required to convince these opposing groups of the need for the advancement of the disadvantaged people. From the point of view of total national development, it would be necessary that the new agency be free of harassment and attack. A strong stand must be taken in support of the agency, and held, until such groups would give up their opposition, and would accept new standards of education, hiring and wages, for the disadvantaged. Rules and regulations in support of the policies which have been proposed for the center would be required; enforcement and encouragement from the governmental institutions and private agencies would be necessary.

To develop education, especially for the disadvantaged, has been a long-time struggle of the educated Turks in order to achieve the long-sought goal of the nation's social, economic, and educational development—to socialize, civilized, and modernize Turkey along the lines of the Western world. The proposed testing program is another attempt to achieve the same goal.
CHAPTER VIII

PREPARING AN "EXAMPLE" OF A SPECIFIC TESTING PROGRAM FOR THE NEW AGENCY

In order to further clarify the manner in which the proposed agency might operate, attention is turned in this chapter to the previously listed "sixth task" which is the presentation of an example of a testing program with which the agency might begin its operations. It centers on a program of preparing junior and senior high school students to become elementary school teachers. The assumption is made that support has already been secured for this particular development.

The main tasks of this program are four: (1) to classify the pool of available candidates and find out those who are willing to become teachers for the elementary schools in Turkey; (2) to prepare the objectives and the content of the curricula for the program to be implemented in preparing the willing candidates; (3) to prepare buildings, facilities, materials, and professional personnel for the implementation of the program; and (4) to prepare measurement and evaluation instruments to be used in various sectors of the program.

We now address ourselves to each of these tasks in turn.

A. To Classify the Pool of Available and Willing Candidates for the Program
The pool would contain within it the "Substitute Teachers" who are now employed in all regions of Turkey, and "out-of-school youth and adults" who are willing to undertake further work to become teachers for the elementary schools.

Within the group of substitute teachers, there are many who have been appointed to their posts for political reasons, and who perform no educational functions. Their number composes about ten to fifteen per cent of the total number of teachers in some regions, and in others maybe less than five per cent. They are not present at the schools they have been assigned to; they get paid by the Ministry of Education but serve in other places, or work for themselves. These persons must be eliminated from the roster of teachers as soon as possible, since there are many junior and senior high school graduates who would like to become teachers for the elementary schools.

Among the substitutes, there is a second group who continue their education at a university while accepting the substitute positions for financial support they need. These persons should not be included in the program of the center.

A third group of persons among the substitute teachers are those who would like to become teachers. They are involved in teaching and they expect to eventually qualify as regular teachers. This is the group that should be considered for the new program.

A questionnaire can be used to identify these substitutes, and other promising candidates, from among the junior and senior high school students who would like to participate in the new
program and become teachers.

As soon as the questionnaire information is received, the data can be analyzed to determine the following: the number of substitute teachers and junior and senior high school students who would like to become teachers; the number of male and female candidates; the number of candidates from each region and province; the level of education of the candidates; the available time and the kind of program desired for the candidates; and the region in which the candidates would prefer to secure their education under the program. This classification would provide information for planning the priorities in developing the instructional part of the program.

B. To Prepare the Objectives and the Content of the Curricula for the Program

The main objectives of the "example" testing program to be developed and implemented for preparing teachers for the elementary schools are as follows:

1. To determine the priorities for the programs to be offered: to decide which activities should be considered first and for what groups of candidates. Summer institutes, night schools and seminars, on-the-job preparation, and similar activities could be implemented in different regions of Turkey according to the results of the data being collected about the candidates.

2. To identify and select the subjects to be taught in the programs specified above in (1). Specific decisions about the number and type of subjects to be taught would be based upon the levels of education being completed by the candidates, and by
consideration of the curriculum of teacher training schools in existence in Turkey.

3. To determine the content or the topics of each subject for the instructional programs. The amount of time to be used for different aspects of each subject should be considered; for example, lecture and practice, individual work or study, and actual service in a school. These should be determined for each candidate and for each group of candidates following the same activity.

Assuming that the above steps have been taken, the following tasks should be considered:

4. The most needy areas, very likely the Eastern regions of Turkey, should be considered for the first teachers to be prepared. Consideration should be given both to the demand of each region for teachers and to the supply of candidates available.

5. From the available pool of the disadvantaged, those who completed higher levels or grades should be considered for the short-term program of four to six months, or the equivalent; those who are at the lower levels should be considered for several summers and night school courses.

After summer school programs or seminars are over for the short-term candidates, the successful ones should be appointed as regular teachers, and those who need some more preparation should be placed or recruited in the schools that have several well-experienced teachers. These candidates should spend about one year in the schools to which they have been appointed and should take the next year's examinations to become regular school teachers.
Those of the candidates who need more than one year should be appointed to the schools with experienced teachers and be required to continue their preparation by attending several summer school programs, night schools, or correspondence courses in addition to actual practice in the elementary schools. As soon as they pass the general examination, they could become regular teachers.

The number and type of subjects to be included in the program for teacher preparation would be as follows: Educational Psychology; Developmental Psychology; Child Psychology; Educational Measurement and Evaluation; Audio-Visual Materials of Instruction at the Elementary Level; and Educational Sociology.

These subjects are in addition to the actual practice the candidates would have at the individual schools.

In the field of Educational Psychology, the instruction would concentrate on the "teaching-learning process," especially at the elementary level.

In Developmental Psychology, Child Psychology, and Educational Sociology, the main aim of instruction would be to gain an understanding of individual differences, growth and development at the elementary school age, the family, the parents, the school, the community, the differences in cultures, and the needs of Turkish society.

Audio-visual materials of education or instruction should be considered both during the course work and during actual practice within elementary schools, and among all subject matter areas. The function of this subject is of great importance for Turkey, because
in many regions children do not speak Turkish, and the audio-visual materials would help in the show-and-tell part of instruction to develop the skills of the children and their interest in the subjects.

Educational measurement, again, is a subject that requires both academic course work and actual practice. The academic part should cover the main functions of educational and psychological tests and instruments in measurement, evaluation, guidance and counseling aspects of education at the elementary school level. The actual practice should be devoted to the evaluation of student achievement, diagnosis, and evaluation of curricula for each subject area. The grading and reporting of the school achievement to the parents, the promotion of students, and the development of school curriculum should be emphasized.

Actual practice for the candidates should be the main part of the program. By actual practice it is meant that the candidates should work within the schools, practice teaching all the subjects they would be teaching later on. Actual practice should include the preparation of daily, weekly, monthly, and yearly plans and schedules of each subject area; the instructional materials and means for the prepared plans; the homework and examination for each subject area; and the evaluation of the students in each subject area.

The above aspects of course work and actual practice would make it possible for the candidates to integrate their knowledge and experience, and become better prepared for their future responsibilities.
C. To Prepare Buildings, Facilities, Materials, and Personnel for the Implementation of the Program

The best place for the implementation of the new agency programs would be the teacher training schools in Turkey: these schools are of either a six-year type or a three-year type, and are national public rooming and boarding schools. They are available during four months of summer as well as during nights for seminars, night classes, and even for the daytime attendance to the regular school subjects for many students.

These schools are scattered all over Turkey, about 95 in number; each of them can accommodate about 200 to 300 students during summers, and about half of summer figures during winters. They can provide room and boarding facilities to the candidates and save the candidates from many expenses. Many students would like to attend new programs in these schools and benefit from their opportunities as much as possible.

These schools have the best teachers; they have been committed to the service of the education profession and they are more likely to favor innovations; they would be willing to contribute to the development of the new agency programs. The teachers would be available during summers and at nighttime to handle the instructional activities of the new innovations, provided they would receive an additional amount of money for their services to the new agency.

Teacher training schools would be the best place for the new programs since they have the best educational facilities like libraries, laboratories, textbooks and other materials. Each such
school has its own experimental elementary school attached to it for student teaching and observation.

It would be possible to open summer schools for the elementary school children at teacher training schools and thus to provide a sufficient number of students in each grade to offer teaching practice and observation for the candidates, while benefiting from the presence of the regular experienced teachers.

These institutions are permanent and the new agency could (and should) cooperate with them for a long period of time to prepare educational personnel without getting involved in many extra expenses. This would make the new agency and its programs inexpensive and effective while also strengthening the teacher training schools for their other national services.

From the point of view of the disadvantaged people, the teacher training schools are the most convenient places to reach and not get involved in extra expenses or travel. These schools are local, or at most regional; many candidates could commute.

From the regional and provincial educational point of view, the teacher training schools would be the most productive and suitable places for the school superintendents and the school principals to become involved in the process of preparing teachers for their schools. They would be able to make decisions about the number of teachers they need, the people they would like to recommend for the programs, and to share the responsibility of preparing the disadvantaged for new jobs. They would be able to send some of their personnel to the teacher training schools to teach subjects to the
candidates as well as to benefit from the center's innovations. They could thus up-grade their own programs.

Through use of the teacher training schools, the new agency would be able to prepare tens of thousands of students for educational services within a short period of time with a minimum of cost.

Since the buildings, the libraries, the room and boarding facilities and the personnel needed for the instructional services during the implementation of the new program would be available at the teacher training schools, the test development center could concentrate its efforts towards the general management, cooperation, and communication aspects of the program and to the preparation of personnel for very specific tasks. Its services in collaboration with the teacher training institutions, would create a new and continuously recycling process of education which would in turn, (1) provide the long-sought educational opportunity to thousands of the disadvantaged people in society each year; (2) contribute to the nation's educational, social, and economic development; (3) develop the quality and the quantity of educational institutions and educational personnel; and (4) become an inexpensive agency in preparing manpower for education and other sectors of national services and economy.

D. To Prepare Measurement and Evaluation Instruments

The needed measurement and evaluation instruments can be classified under three groups as follows: (1) guidance and counseling instruments; (2) instructional evaluation instruments; and (3) comprehensive examinations and promotion instruments.
1. Guidance and Counseling Instruments

This group of instruments includes those needed for identification, screening, classifying, and directing the candidates in suitable ways for various educational opportunities being provided by the new agency and its program. These instruments should provide data about "out-of-school youth and adults" regarding their educational achievement levels, their interests, abilities, work experience, and backgrounds to be considered while planning for any educational opportunity to be provided.

Guidance and counseling instruments can be divided into three subdivisions: (1) achievement instruments—to determine the academic achievement level of each student; (2) ability and interest instruments—to diagnose the general abilities, interests, and capabilities of each person; and (3) personal data records—to include the work experience and background of the person.

While considering some people for occupational or professional fields, or for a type of job that would be included in the educational opportunity program, the above three sources of data should be used in order to direct those not selected into other activities or jobs from which they could benefit.

The achievement instruments can be prepared more easily than the rest of the instruments. The ability and interest instruments have to be translated from English to Turkish and must be adapted in proper ways to be relevant and reliable for uses in Turkish cultural patterns. This task has to be initiated before usage of the instruments in the field, but the main development of the instruments would take place during actual usage.
2. Instructional Instruments

Instructional instruments are directly related to the content of each subject or area that would be included in the programs for the disadvantaged people. They would be needed for the contents of courses, seminars, night schools, summer schools, correspondence courses, and for the evaluation of all phases of the program. The preparation of these instruments would be the responsibility of the agency. The related division in the test development center would prepare test batteries for each implemented innovation and would provide these instruments to the people in charge of instruction and evaluation.

The main purpose of these instruments would be to determine: (1) the degree to which the instructional efforts have been able to impart desired knowledge, understanding, and professional qualifications to the candidates; and (2) the degree to which the skills of the candidates have been developed through other efforts of the program. This would provide useful data about the good and the bad sides of the programs and, as a feed-back, would contribute to the development of much better programs and opportunities for the out-of-school youth and adults.

3. Comprehensive Examinations and Promotion Instruments

The great importance of these tests is that the agency would use these instruments as yardsticks for nationwide purposes such as qualification of the personnel, awarding of diplomas or certificates, and for credits or promotions.
Once developed, the above instruments would be used in the following ways:

(1) To measure the comprehension levels of the students' knowledge and determine whether they can be promoted to the higher grades or levels of education. That is, these instruments will be used for credit.

(2) To measure the overall effectiveness of the center programs in providing educational opportunities to the out-of-school youth and adults.

(3) To measure the effectiveness and efficiency of the programs being implemented each year for preparing teachers for the elementary schools.

While serving these purposes, the instruments would also provide data to the Ministry of Education for the judgments it would want to make concerning the present and potential capacity of the new agency as an effective force in developing Turkish life. The "example" of the program for preparing teachers could be used to suggest what might also be the prospective value of other programs sponsored by the new agency for benefiting disadvantaged people in other ways or for other services. The Ministry could also gain data which would allow judgments to be made of the indirect effects of the program in teacher education on the development of the educational system as a whole—the major changes that came about at all levels of education, and within the Ministry itself.

The key questions to be answered by the Ministry in making these judgments of the new agency are the following: (1) What is
the degree of effectiveness, relevance, and productivity of the agency's programs in preparing manpower for Turkey? (2) What are the overall contributions of the agency and its programs to the social and economic development of Turkey?

In order to provide valid and reliable information to the decision-makers about important aspects of the above national considerations, the comprehensive examinations and promotion instruments must be given careful consideration.

The following chapter is devoted to the process by which these tests are to be constructed and used.
1. The Target Population for all Programs of the Agency

The age range, interests, educational levels, and achievement levels and abilities of the "out-of-school youth and adults" are probably more diverse than those of the students enrolled in secondary education schools of Turkey.

The disadvantaged people would enroll in agency courses and programs or take the agency tests for one or more of the following reasons:

A. To further their education and possibly secure credit for such work in order to be promoted to the higher grades or levels of education in Turkey.

B. To increase their efficiency in their present duties, assignments, jobs, or to increase their capabilities for assuming greater responsibilities.

C. To utilize their leisure time in some form of education for the satisfaction of their own intellectual desires.

D. To have a combination of academic preparation and actual teaching practice to prepare themselves to become regular elementary
school teachers.

Eventually, the Test Development Center would develop tests to be used to meet the varied needs of the disadvantaged people as stated above. Here, we are presenting an "example" of the test construction process, focusing our attention on the procedures for preparing standardized comprehensive examinations and promotion tests for those students who are to become teachers in the elementary schools.

II. The Target Population to Take Standardized Tests in Programs Preparing Elementary School Teachers

The first group of candidates to be considered for the program innovations to become teachers are the junior high school graduates. This pilot group would go through a series of subjects and activities and take the prepared comprehensive examination tests for their graduation from the agency program.

The following subjects would be considered for the test standardization process:

Educational Psychology
Developmental Psychology
Child Psychology
Educational Sociology
Educational Measurement and Evaluation

These are not the only subjects to be considered for the preparation of the elementary school teachers; the agency would make decisions about the type and number of subjects to be included in the program. The above subjects are only for the pilot study and
test construction process purposes.

III. The Test Construction Process for the Teacher Training Program

The test development center would take the following steps in preparing the standardized tests for the teacher training program: (1) preparing the objectives and outlines of each subject matter area, including the textbooks and the supplementary books and related materials; (2) selecting the authors for preparation of the items; (3) preparing the items and trying them out on a pre-sample population to determine the item difficulty and discrimination levels; and (4) developing the final test forms and determining the test norms.

A discussion of each of these steps is now presented.

A. Preparing the Objectives and the Outlines of Each Subject Matter Area in which the Tests would be Developed

This section includes the main objectives of the teacher training program, the population of the students or candidates who would take the tests, the subjects to be evaluated by the tests, and the main characteristics of each subject to be evaluated by the tests. All of these aspects would be prepared by the related division within the test development center. The textbooks, the supplementary books, and the outline of the technical specifications for item-writing would be prepared and packaged to be given to the item-writers.

The authors are to prepare about 250 items for the above test plan as shown in Chart 4. There are six content areas or topics to be covered by the test. Each content area or topic is to be measured by six objectives or abilities: knowledge, comprehension, analysis,
The above "Test Plan Chart" will be provided to the Item-Writers for their guidance while preparing test items for the test. The test development center will determine the content areas to be covered and the percentage of the items to be devoted to each objective or ability to be measured by the test.
synthesis, application, and evaluation. The totals on the right-side column (6), indicate the percentage of items in each content area. The totals given in the lower row indicate the percentage of the items measuring each objective or ability. The 100% in the lower-right-hand corner of Chart 4 indicates the total percentage of the items in the test.

Items for subject standardized tests would be prepared in such a way that the content of three to five textbooks and required supplementary books would be covered. The textbooks and the supplementary books must be the ones that are used by the teacher training schools in Turkey.

The scope and level of each test would be outlined by the agency in detailed specifications which also would indicate the broad objectives to be measured by the tests as given in the test plans for all tests.

The item-writers would be required to adequately sample the course subject matter in accordance with the specifications, and at the same time assess related general educational objectives as they apply to the subject matter. These aspects are provided in the test plan and must be met by the developed tests.

Very careful efforts shall be made to insure the needed emphasis on generalized and permanent (instead of specific and temporary) outcomes of education and instruction— that is, on the understanding of broad educational concepts; on intellectual skills; on the establishment of correct and efficient habits of thinking and of study; on the ability to bring a large number of specific skills, abilities and knowledge to solve complex problems; and on the
exercise of personal judgment and values. These aspects shall permeate the testing pattern when forming items for the specific content topics.

B. Author Selection Process for the Preparation of the Test Items

Actually everything done up to "author selection process" is related to the official arrangements and management services. The author selection process is the first step in the test construction process.

To find the best item-writers in each subject area is of great importance. The test development center would investigate and invite several professional authorities from each field to participate in item-writing under the direction of the test development center specialists. From those who would like to prepare items, the test development center would select the most promising ones. Using the textbooks, general test specifications, and detailed specifications being provided by the test development center, the authors would prepare test plans for each area. These plans must consist of the specific objectives, in terms of student behavior, associated with each topic. The plans also should specify all important technical requirements of each test, as well as the content requirements. The length of each test should be specified in terms of the minimum reliabilities to be attained with the defined population of examinees.

The completed test plan would be reviewed by the test development center specialists; proper changes, suggestions, and rearrangements would be made and the final forms of the test plans would be
C. The Process of Preparing and Trying Out the Test Items on a Tryout Sample Population

The item-writers, during actual writing of the items, should keep the following points in mind (as mentioned elsewhere in this chapter): The purpose of the examination; the subject matter to be covered thoroughly; the abilities to be tested and evaluated; the types of items to be used in tests; the number of items to be prepared for each test for tryout and for the final forms; and the unique qualities of the examinations or tests to be met in the final results of the tests.

The types of items and the number of items would be decided by the test development center and the item-writers would be notified.

On the unique qualities of the standardized tests and examinations, the following specifications should apply for each test: The final test in each subject area should contain between 90 to 120 test items with an anticipated 90 to 95 per cent of the examinees attempting all items. The spread of item difficulty should be set up between 35 and 85 per cent, with an average of about 55 to 60 per cent. The reliability (internal consistency coefficient) of the tests must be over .75 or .80, but considerable efforts should be made to achieve a reliability above .90. The item discrimination index (biserial correlation) should be between .30 and .55, in some cases as low as .25 and as high as .60. Items falling out of these ranges (either above or below) should be very carefully examined, changed, and modified before they are included in the final test forms.
While writing the items to meet the above criteria, the authors should undertake to prepare items which are objective in nature, utilizing a variety of four or five responses in multiple-choice format, including such as "best answer," "matching," "graphic," "cluster," and "analogy."

Each item should be answerable from information contained in the majority of the textbooks, and as many items as possible should have reference to all of the textbooks being used in the agency programs for each area.

Item stems, distracters, and responses should be controlled on the basis of the vocabulary level of the course and the textbooks used.

The completed items would be presented to the test development center for review and acceptance.

The test development center would do two kinds of evaluation on each item, the first to judge the content, the objectives, the scope, and the abilities to be measured; and the second to judge the technical adequacy of each item. After these two aspects have been considered and the undesirable or improper parts have been identified, the authors would be called in for the item revision and corrections.

As a next step, the test development center would arrange the test items in parallel forms for the item-tryout. The two forms should possess the same attributes of the subject area to be tested; that is, each test form should include items from all item-types, from all difficulty levels, from all parts of the content of each area, and from all objectives to be evaluated.
When the test forms are completed, the next job would be to prepare the "General" and "Specific" directions or instructions to be followed when the tests are taken. The "General Instructions" would provide the test administrators with the necessary information about the handling and management of the tests; and the "Specific Instructions" would provide the students with the necessary information on how to take the tests.

While the above preparations were under way, the agency would make arrangements for the sample of the schools and the students to participate in the tryout process. This step is one of the most important in nationwide standardization. The agency has to find a sufficient number of schools to participate in the tryout and norming of the tests, and those schools need to be "representative" in type, in size, in geographical location, in overall achievement levels, in class size, and in content of the subjects being taught. Those schools should be chosen which meet the combined criteria most fully.

A reasonable number of schools would be about five teacher training schools from each region of Turkey, making a national total of at least thirty to thirty-five schools for the tryout and norming process. About 350 to 500 students should take one test form in each subject area, producing between 700 to 1,000 students in total for the two forms of each test to be standardized.

After the tests have been taken and the item analysis data have been obtained, the evaluation of the item results needs to be done. Two basic technical and professional screening and revision processes would be required on each item. The first is to compare
the obtained results with previously established values for each test regarding "Item Difficulty," "Item Discrimination," and "Reliability" correlations or coefficients of the tests, in order to find out how far the actual or the obtained results meet the previously established standards. During this process, the following steps would be taken:

(1) Selection of the items that meet the criteria.

(2) Utilization of the item analysis data for the revision of the faulty items.

(3) Deciding about the length of the test.

The second process in the revision would be the editorial work on the improvement of the items. This process begins with study of the data to determine, with respect to each item, the following:

(1) Whether all distracters in each item have attracted some students (proportionally) both from the lower and the upper groups.

(2) Whether the distracters are in the right order—that is, the upper group students are more attracted than the lower group students by the correct answer, but less attracted than the lower group on the distracters.

(3) Which distracters are extremely high and which ones are extremely low in their attractiveness.

(4) Which items reflect technical or language problems that make it difficult for either the upper or the lower group of students to make proper choices.

After the above analysis has been made by the agency test specialists, the test item authors would be called in to meet with
the test specialists and revise all the items for any necessary changes and corrections. After the revisions have been completed, the items would be re-arranged for the final forms to be used for norming of the tests.

D. Developing the Final Test Forms and Determining the Test Norms

In order to obtain normative data, the final forms have to be administered (under standard conditions) to a sample of students who are just completing the corresponding grades at the "representative" teacher training schools.

In selecting the standardization sample, the schools rather than the students should be considered as the unit of sample.

The final test forms must be administered to at least one class of students for each grade in each of about thirty to thirty-five schools in various regions of Turkey. This should result in the testing of about 700 to 1,000 students for each test. The sample of the schools should be selected on the basis of a sound geographical and social distribution, using either of two ways of classifying the regions (the preferred way to be determined later): that is, to consider Turkey to be made-up of nine regions (Eastern, North Eastern, Northern, North Western, Western, South Western, Southern, South Eastern, and Central), or three regions (North Eastern, Eastern, and South Eastern as one group; Northern, Central, and Southern as a second group; North Western, Western, and South Western as a third group). Each of the latter three groups combines the regions that are at about the same literacy, socio-economic, and cultural levels.
In this last choice, about ten to twelve schools from each group of regions could be included in the norming sample.

All arrangements, including the directions of the tests, should be made by the agency; the tests would be mailed to the sample schools for administration, and the answer sheets and all other materials would be returned to the agency.

After the test development center had received the answer sheets and the test forms from the schools, the scoring and the data analysis would be performed by the Center.

As the final step, the Test Development Center would develop the final norms, reporting: (1) the number of schools and students participating in the final norming of the tests; (2) the total frequency distributions; (3) the mean; (4) the standard deviation; (5) the percentile equivalent for each raw score; and (6) the first tentative critical scores (minimum passing levels) for those who take the agency tests.
CHAPTER X

SUMMARY PERSPECTIVE ON THE PROPOSED AGENCY FOR
EDUCATIONAL DEVELOPMENT: NEEDS MET BY
THE TEST DEVELOPMENT CENTER

In summarizing the data presented in Part I, we pointed to weaknesses in the Turkish educational system derived from consideration of the enrollments in elementary and secondary education, the causes for high rates of failure among students enrolled in the system, and the limitations on the development of education due to the nature of the centralized system of education as it now operates, the shortage of personnel, and the inequities in educational opportunity as among the regions of Turkey.

In reviewing these weaknesses, we pointed to the need for new programs in Turkey which could do the following:

(1) Extend the reach of the educational system.
(2) Serve the disadvantaged.
(3) Reduce the loss among students attending school.
(4) Better meet the needs of students as learners.
(5) Increase the supply of teachers.
(6) Increase the quality of teacher training.
(7) Increase the supply of professional personnel required for developing education in the nation—evaluators, planners,
curriculum-builders, researchers, leaders.

(8) Better meet the needs of local communities with their varied languages, cultures and living conditions.

(9) Generate local interest and initiative.

(10) Better meet the economic and social needs of a modernizing society.

(11) Work toward a balancing of educational opportunity as between regions.

(12) Increase the range of programs by which students can get to their objectives.

(13) Widen the range of teaching materials and teaching methods.

(14) Capitalize on resources available.

(15) Operate at minimal cost to students and state.

(16) Provide a place for innovation and experimentation in an otherwise rigid system.

(17) Develop education as a professional field, with educators primarily responsible to the people for the developing welfare of the people.

(18) Provide a flexible possibility for growth.

In Part II, we presented the design for a new agency to help serve these needs. We outlined the structure, functions, modes of operation, sources of support and anticipated opposition to the proposed agency. We then presented an "example" of one of the programs which the agency would pursue—namely, a program of test development and use, designed to improve teacher education through supplementary services to the present teacher-training schools.
We described the needs of these institutions and the manner in which the proposed new program would fit into, gain benefit from, and grant benefit to their development. We described in detail the processes of test development in order to assure the feasibility and professional validity of an approach which begins with the use of test construction to initiate activities in the improvement of teacher education.

We are now in position to more specifically relate the proposed agency plan, described in Part II, to the developmental needs in Turkey as summarized from Part I.

We named the new agency a "Test Development Center." This puts the emphasis on a recognized tool of education, accepted by educators in the regular system. Tests emphasize quality and standards; they invite concreteness and trust. They call for clarification of objectives and content. They can effect the kind and quality of teaching. Tests are extremely flexible in the content and situation to which they can be fitted. They can implement transfer of credits from one program to another. Students can pursue correspondence courses and independent study when tests are available as means of evaluation. Night schools, summer programs, and other innovations can "prove" their value when accepted tests are used as a measure of accomplishment. Through tests, credits earned in innovative programs can open the way for out-of-school youth to again enter the regular program, and, in reverse, students who might be lost to the regular program, otherwise, can have access to a supplemental program to tide them over until they can get into the regular
program again.

Through tests, the developer can gain access to many sectors of the educational setting. He can become collaborator with other educators under favorable conditions, where attention is focused on objectives, content, teaching materials and methods. Testing leads quickly into the possibility of also constructing curricular material to provide whole "units" which teachers can use with little relative loss in their own eyes, while, in fact, they are "innovating." New courses can be seen as possible when standards are assured and content is provided. Alternative languages are possible when the programs under each can be held to the same level.

A small staff of professional personnel, working through test construction, can have a wide-spread effect from a relatively small financial investment. In the hands of developers, tests can be a powerful, economical, flexible tool in improving an educational system.

To illustrate how the Test Development Center might begin its work, we chose the problem of increasing teacher supply. There are 95 teacher training schools in Turkey, well distributed geographically. They can provide rooming and boarding facilities; they have the best prepared teachers; they are the most likely centers to appreciate innovations; they are available during summers and at night time to house supplemental programs; they have the best facilities in libraries, laboratories, teaching materials, etc.; they each include a laboratory school for student teaching and observation; they are available to many disadvantaged youth and adults; they are so
situated as to be available for collaborative programs with surrounding public schools; they are permanent institutions whose development could have long-range and permeating effects on public education; they could absorb into their regular programs what the innovative programs could supply.

For these teacher training schools, the Test Development Center would supply (1) guidance and counseling instruments for the selection of the most suitable candidates from among the disadvantaged; (2) instructional instruments for teacher use in the content areas of instruction; and (3) comprehensive examinations for promotional purposes.

The instructional instruments and comprehensive tests would focus on the content areas of educational psychology, developmental psychology, child psychology, educational sociology, and educational measurement and evaluation. These content areas direct attention to the nature of learners and learning, to the nature of society in which the schools are to function, and to ways of judging the effect of the teaching which is undertaken. These are necessary emphases to redirect attention from traditional curricula and methods of teaching to more productive lines of effort. By careful building of the promotional tests, standards could be set for teacher training across Turkey.

It would be necessary to fit these developments to the innovative programs which would be initiated as summer institutes and night courses in the teacher training schools. But once established on a sound basis from small beginnings, the way could be open
for expansion geographically, and introduction into the regular programs of teacher training.

This example of a way in which the Test Development Center might operate in its beginning is intended as an illustration of how the Center might function in other areas open to development. Such areas are the emerging fields of the health professions, the new occupations in the industrial and commercial sectors (key punch operators, bookkeepers, computer operators, data analysts, programmers, secretarial and clerical workers, etc.), the growing field of tourism and travel (hotel personnel, airline employees, etc.), and technicians (in manufacturing and servicing of telephones, radios, and television; in auto service and repair; and many others).

These activities suggest the domain of interest of the Test Development Center as an agency to serve the welfare of Turkey, generally, through its establishment in the Ministry of Education (with affiliation to the Ministry of Labor) as a center of innovation.

To so function, the agency would be designed with broad responsibilities (1) for determining the population of "disadvantaged out-of-school youth and adults" (their location and characteristics, their desires and the programs needed), and (2) for determining the occupational opportunities (the present needs of the national economy for well-prepared and skillful personnel, the emerging lines of economic growth and their consequent occupational requirements, and the educational needs of occupational groups).

With such data at hand, the Center could then be responsive to a wide range of opportunities for possible developments. But the
Center could not so serve unless, in its establishment and operation, it were free to follow certain policies:

(1) Serve the disadvantaged.

(2) Use present educational facilities where they were not now maximally used.

(3) Employ professional personnel.

(4) Have direct access to local educational institutions when setting up innovative programs in them.

(5) Authorize equivalent credits for student transfer from one program to another, when fitting.

(6) Grant certificates and diplomas for completion of specific programs.

(7) Make contracts with businesses, professions and institutions for specific services rendered.

(8) Purchase modern equipment for handling test data and printing tests and curricular materials.

(9) Have direct access to the mass media to explain and present the Center's program and the needs of the nation.

Establishment of the agency would need to come from government action. Financing would need to come primarily from the Ministry of Education and the Ministry of Labor, with supplemental income from assessments against non-educational agencies served directly by the programs and activities of the Center, from nominal student fees, and from grants and gifts of international agencies.

A large measure of independence from the regular channels of power in the government would be necessary to protect the innovative
and professional functions of the Center. Initial opposition could be expected from political interests, from potential private competitors, and from private employers who see more advantage in low pay scales than they see in educated workers.

But, granted a fair beginning, it is possible that a Test Development Center of the kind described and recommended here could well point the way to Turkish educational development in general. It has been designed with Turkey's educational needs in mind, and, in some measure, it has the potentiality of meeting those needs. More specifically, the overall plan "increases the reach of the educational system," "serves the disadvantaged," "reduces the loss of students," "better meets the needs of learners," "increases the supply of teachers and the quality of teacher training," "increases the supply of professional personnel required for development," "better meets the needs of local communities," "generates local participation," "better meets the needs of a modernizing society," "increases the range of programs open to students," "widens the range of teaching materials and methods," "capitalizes on resources available," "operates at a minimum cost," "provides a place for innovation," "develops education as a professional field," and "provides a flexible possibility for growth."
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