

DOCUMENT RESUME**ED 106 203****95****SO 008 343**

AUTHOR Azzouz, Azzedine
TITLE Selected Bibliography of Educational Materials: Algeria, Libya, Morocco, Tunisia. Volume 6, Number 4, 1972.
INSTITUTION Agence Tunisienne de Public Relations, Tunis (Tunisia).
SPONS AGENCY National Science Foundation, Washington, D.C.; Office of Education (DHEW), Washington, D.C.
PUB DATE 73
NOTE 49p.; For a related document, see ED 098 094; Best Copy Available

EDRS PRICE MF-\$0.76 HC-\$1.95 PLUS POSTAGE
DESCRIPTORS Adult Education; *Annotated Bibliographies; Bibliographies; Bilingual Education; *Comparative Education; Developing Nations; Educational Development; *Educational Problems; Educational Theories; Elementary Secondary Education; Higher Education; *International Education; Vocational Education
IDENTIFIERS *Africa; Algeria; Libya; Morocco; Tunisia

ABSTRACT

English language annotations of newspapers and government publications covering educational materials of interest to North Africans to (1) raise the consciousness of their Islamic and Arabic heritages (Arabization) and (2) to adapt education to the problems of the multilingual population are included in this bibliography. Citations are categorized by country. Topics include the philosophy and theory of education, educational organization, vocational education, adult education, and Arabization and bilingualism. A list of sources and authors concludes the bibliography. (JR)

ED106203

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

SELECTED BIBLIOGRAPHY OF EDUCATIONAL MATERIALS

ALGERIA

LIBYA

MOROCCO

TUNISIA

Vol. 6 No. 4 1972

Compiled for the Office of Education,
U.S. Department of Health, Education and Welfare
and the National Science Foundation, Washington, D.C.
by the Agence Tunisienne de Public-Relations,
6, rue de Hollande, Tunis, Tunisia.

BEST COPY AVAILABLE

TT 73-65026/04

MAY 5 1976

Prepared for
THE OFFICE OF EDUCATION
U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

and

THE NATIONAL SCIENCE FOUNDATION, WASHINGTON, D.C.
by the
AGENCE TUNISIENNE DE PUBLIC-RELATIONS

Prepared by Azzedine Azzouz
with the assistance of
Christiane Djemili
Margaret Duggan Saidi

P R E F A C E

Combatting illiteracy, preparing an often isolated youth with little broad cultural background to meet the needs and to face the requirements of modern society, and adapting to a multilingual situation - these are the major factors influencing educational philosophy in the Maghreb.

Illiteracy is being reduced by spectacular efforts at universal schooling.

In view of the wide-spread and sometimes dramatic social change taking place in these countries, education is in a transitional period during which it is trying to achieve a balance between the classic values and methods inherited from the colonizing countries and the practical needs imposed by a society which is increasingly in need of skilled labor and of teachers themselves.

Adapting education to the peculiarities of a multilingual population has in the past been a cause of frequent and disrupting changes of curriculum, but many of the problems related to this are now being resolved, and a clear trend towards "Arabization" can now be remarked, with an attendant emphasis on instilling in children a consciousness of their Arab and Islamic heritage.

The main difficulty in compiling a bibliography such as this is that most material must come from newspapers and from government publications. Other material, where it exists, has been published outside the countries and has not always been classified. Thus there are available many figures, many statements of policy, some evaluation of past results and practices, and very little thorough analysis.

Despite the inadequacies which necessarily result from these difficulties, these issues will be, we hope, not only of use to educators and students, but also of interest to those with a general interest in North Africa.

TABLE OF CONTENTS

I. MAGHREB	1
Philosophy and theory of education	1
Educational organization- Vocational education	2
Arabization and bilingualism	2
II. ALGERIA	3
Philosophy and theory of education	3
Educational organization	4
- Vocational education	10
- Higher education	11
Adult education	14
Religious education	14
Artistic education	15
Special education	16
Arabization and bilingualism	17
III. LIBYA	17
Educational organization	17
IV. MOROCCO	18
Philosophy and theory of education	18
Educational organization	20
- Vocational education	23
- Higher education	24
Religious education	25
Special education	25
Arabization and bilingualism	26
V. TUNISIA	27
Philosophy and theory of education	27
Educational organization	27
- Vocational education	33
- Higher education	36
Adult education	36
Special education	36
Cooperation	37
Arabization and bilingualism	38
VI. SPECIAL PROBLEM - TEACHING AIDS	38
List of sources	43
List of authors	44

I. THE MAGHREB

Philosophy and theory of education

1. "Ouverture à Tunis d'un colloque inter-maghrébin sur "la pédagogie de l'information". L'étudiant doit connaître la réalité de son pays et celle de la presse nationale affirme le Ministre tunisien des affaires culturelles et de l'information" (Opening of an inter-Maghreb colloquium on "News pedagogy". The student must understand the real conditions of his country and those of the national press, says the Tunisian Minister of Cultural Affairs and Information). L'Opinion, December 21, 1972, p.4.

This article reports on a colloquium organized by the Press Institute with the participation of the Algiers Higher School of Journalism and the Rabat Center for the Training of Journalists. The minister emphasized the importance of journalists' training. Their social awareness and their knowledge of current international affairs must be deepened. The bonds of cooperation among the press institutes of the Maghreb must be lightened.

2. Komorowski, Z. "Le système scolaire et les orientations des transformations culturelles en Afrique Occidentale et dans le Maghreb" (The educational system and the orientations of the cultural transformations in western Africa and in the Maghreb). Africana Bulletin December 17, 1972, pp. 29-41.

The modern educational system which has been set up in these regions has not given all the results that were expected. Nowhere has it been possible to develop a complete school system, and the training the students are given corresponds only vaguely to the needs of the specific countries involved.

3. "4^e Conférence des ministres arabes de l'éducation. Le ministre des enseignements primaire et secondaire à Sanaa" (4th Conference of Arab ministers of Education. The minister of primary and secondary education at Sanaa). El Moudjahid, December 21, 1972, p.3.

The aim of this conference was to review and evaluate the situation after the resolutions made at the 3rd conference.

Each country presented a report on the development of education during the 1968 - 1972 period.

The main theme of the conference is the definition of a new educational strategy.

Educational organization - Vocational education

4. "Hier à Rabat, ouverture du colloque maghrébin sur la formation professionnelle dans l'hôtellerie et le tourisme" (Yesterday at Rabat, opening of the Maghreb colloquium on vocational training in the hotel and tourist trade). L'Opinion, November 28, 1972, p. 5; November 30, 1972, p.4.

The participants in this colloquium were the Ministers of Tourism of Morocco and Algeria, a representative of the Tunisian Minister of the National Economy, three Maghreb delegations, and representatives of the Maghreb Confederation of tour agents. The problem of training in this field is an important one, and the three countries have similar, if not identical concerns. These concerns were discussed, and reports were presented on the training situation in the three countries. At the end of the colloquium, recommendations and reports were to be drawn up.

The president of the delegation spoke of his country's experience in this field. There has been a rational planning of vocational training and substructure equipment, but more remains to be done.

Arabization and bilingualism

5. "L'Expérience des langues étrangères dans les pays africains" (Experience with foreign languages in African countries). L'Opinion October 24, 1972, p. 6.

This is an article which was published in the "Cahiers africains d'administration publique". In Algeria, the principle of the return to the national language and culture remains unchallenged, but it is difficult to apply. The President emphasized Arabization in a speech on April 28, 1960. Universal school enrollment, democratization and the literacy campaign have all begun to be put into effect.

In Morocco, this principle was applied until 1961, but after that year, Arabic became the second language. Complete "Arabization" of instruction is unanimously desired by the country, and a great injustice is done to the principle when it is accused of inadequacy. The only solution to the problems existing in instruction resides in the Arabization and "Moroccanization" of trained staff. This was supported by a manifesto of the ulamas of Morocco on May 20, 1970.

The main negative results of the experiment in the bilingual system of instruction are discussed, as are the reasons for maintaining foreign languages in Morocco (habit on the part of the directors and authorities, risk of disturbances).

6. "Etude. L'Expérience des langues étrangères dans les pays Africains" (Study. Experience with foreign languages in African countries). L'Opinion, November 4, 1972, pp. 4 and 5 (10 columns)

At the request of UNESCO, Idriss El Kettani, professor of sociology at the Mohamed V University and the ENAP has made a study which is printed here in its entirety.

UNESCO and the BIRD, in a purely economic perspective, recommend that developing countries introduce their national languages into their educational systems. The author studies the experience with foreign languages in west and east Africa, Madagascar, Algeria and Morocco. After giving a brief history of the situation in Algeria, he recalls that country's decision to Arabize instruction, based on experience with Arabization in Morocco between 1956 and 1961. This decision advocated a universalization and democratization of education, literacy, and Arabization.

The principle of Arabization was applied in Morocco up until 1961, when the foreign language was reverted to. One experiment undertaken in 1964 unfortunately came to nothing.

II. ALGERIA

Philosophy and theory of education

7. "17^{eme} conférence générale de l'UNESCO. M. Benyahia: 'l'Organisation peut et doit contribuer à l'avènement d'un monde plus juste'" (17th general conference of UNESCO. M. Benyahia "The organization should and must contribute to the advent of a fairer world"). El Moudjahid, October 21, 1972, p.4.

The Minister of Higher Education and Scientific Research spoke of the unfinished nature of UNESCO's action, despite all that the organization has done to promote education. Whatever aid it may give to developing countries, its efforts will represent only a minute part of their own education budgets, and it thus poses a primarily political problem.

UNESCO should extend its work of promoting books. There can be no standardized, universal solution to educational problems, and developing countries must conceive their educational institutions in a way which is appropriate their individual situations. UNESCO cannot take over for the national authorities in solving their educational problems. It must coordinate its efforts with those made by the countries themselves. One of the stages in development is that of setting up educational, economic and social institutions which function for the benefit of all.

Mr. Benyahia also expressed his disapproval of discriminatory educational systems and regimes.

8. "Ouverture à Alger d'un séminaire sur l'évaluation pédagogique" (opening of a seminar on pedagogical evaluation in Algiers). El Moudjahid, November 21, 1972, p.4.

The article reports on a seminar concerning the techniques of making up tests of levels, presided over by A. Mehri, General Secretary of Primary and Secondary Education, who gave an outline of the plan to be followed. He also declared that orientation should play a major role in the school's openness to the environment, and in linking the academic and the working worlds. This seminar marks the second phase in the setting up of a system of pedagogical research which must include a reinforcement of the National Pedagogical Institute.

Educational organization

9. "Enseignement" (Teaching). El Djeich, no. 110, July 1972, pp. 45-56.

An effort has been underway since independence to provide the Algerian population with an education and a training which are compatible with the country's choices. The aim of this policy is not only to assure cultural and social training for the individual, but also to prepare him to handle productive tasks. One important network of information is based on the contribution of each ministry, but this requires a considerable effort of coordination.

Two essential elements in primary and secondary education are Algerianization and Arabization, on the one hand, and the scientific and technical option (transformation into technical schools and institutes of technology) on the other.

Higher education has been totally recast, with a view to the principles of democratization and rapid, effective insertion into the economic circuit. The overall volume of this policy, in figures, represents 12% of the total investments program.

The capacity of professional training facilities must be consolidated and increased; many difficulties remain in the field of Arabization.

10. "Rentrée scolaire: une question de possibilités" (The beginning of the new school year: a question of capabilities), by Mustapha K. El Djelich, October 1973, no. 113, pp. 13, 16-18.

The results that have been achieved in education are positive. In 1960, there were 200,000 students. Ten years later, there were 2,600,000 in primary and secondary schools. Complete school enrollment for children of six was achieved in 1968, but there are problems of enrollment at other levels.

In order to increase the percentage of entries into secondary school, the government decided to correct the tendency towards primary school drop-outs and to allow 40% of those completing primary school to pursue their studies.

The remaining 60% can either catch up (by repeating or going into a fifth year) or go into technical instruction.

Between the first and fourth years of secondary school, the rate of success is 70%. In the fourth year a further selection is made, which orients those students who have failed towards the technical high schools or technology institutes which train middle-level trained staff.

The remaining problems are to be solved by a fundamental reform of the educational system.

11. "La rentrée scolaire dans le daïra de Bejaia" (The new school year in the daïra of Bejaia). El Moudjahid, October 1-2, 1972, p. 7; October 3, p. 7.

The authorities of each locality have gotten together to study the problems related to school enrollment. This article discusses the situation in the daïra of Bejaia. In 1967, the proportion

of children enrolled was 40%. The daira was suffering from a shortage of schools and the educational crisis had led some students to go to other towns.

A program was set up for the following years which was particularly favorable to primary education in 1970 and 1971. In 1972, a multi-disciplinary lycée was founded. Most primary schools are located in rural areas. Technical and agricultural education are still at a disadvantage.

An Islamic Institute with a capacity of 500 students is to be set up in Bejaia.

12. "Devant certaines difficultés matérielles. Crédit de 18,000 dinars aux établissements scolaires de Mohamedia" (In the face of certain material difficulties. An 18,000 dinar loan to the educational establishments of Mohamedia). El Moudjahid, October 4, 1972, p.7.

The educational authorities met to review the situation; the main subjects on the agenda were material problems, operating loans for educational establishments, aid to needy schoolchildren and the opening of a cultural center.

13. "Rentrée scolaire: Réunion des inspecteurs généraux et des cadres du ministère des enseignements primaire et secondaire" (The new school year: A meeting of the general inspectors and executives of the Ministry of Primary and Secondary Education). El Moudjahid, October 5, 1972, p.3.

This meeting was devoted to various work reports and to drawing up a schedule of activities for the first school term. The year did not begin without certain obstacles, although progress has been made in comparison with previous years, thanks to a long preparation.

The main difficulties have arisen from the population explosion, the concentration of school-age children at certain points, the scattering of the inhabitants of rural zones, and difficulties of access to certain schools.

The greatest difficulties concern capacities and teaching staff.

14. "Algérie. 2 millions d'élèves" (Algeria 2 million students). Jeune Afrique, no. 613, October 7, 1972, p. 2.

The number of children in primary schools has almost tripled since independence. The various special plans of the wilayas have made it possible to build schools in every village. There are eight times as many students in secondary and vocational schools.

The next plan, which is now being drawn up, will solve the problem of students graduating from trade schools without being of an age to go to work. School attendance will be compulsory for all up to the age of 16. All students will leave school with at least a "brevet technique" [a certificate of secondary technical studies].

The distinction between general and technical instruction is to be abolished, and teaching will be made "polytechnical".

15. "Annaba. 15,000 nouvelles inscriptions et plus de 205,000 élèves scolarisés dans le Wilaya" (Annaba. 15,000 new registrations and more than 205,000 students enrolled in the Wilaya). El Moudjahid, October 8, 1972, p. 4.

The authorities of the Wilaya have drawn the outlines and perspectives for the school year. The rate of school enrollment was 61.68% the preceding year. Split sessions are a widespread practice in elementary and general schools. The 75% school enrollment figure set for 1975 is being approached.

An account is given of the building that has been done in primary, general and secondary schools.

16. "Mostaganem: l'accroissement du nombre d'enfants scolarisés est lié aux moyens d'infrastructure" (Mostaganem: the increase in the number of children enrolled in school is related to the substructures capacities). El Moudjahid, October 8, 1972, p. 4.

Three times more children have been enrolled in school this year than in the first school year following independence. At the present rate, primary school enrollment will be complete within a reasonable length of time. Almost all of the primary school teachers are now Arabs; only 3% are cooperants, thanks to the technical education institutes.

An entire system of training has been set up to improve the teaching staff.

The capacity of the school canteens is inadequate.

Great efforts have been made in technical and secondary education, but the problems in this domain have become more complex. Many projects are being carried out.

17. "8^e programme spécial de développement. Tous les détails rendus publics hier par le Dr. Ahmed Taleb Ibrahim" (8th special development program. Dr. Ahmed Taleb Ibrahim made all the details public yesterday). El Moudjahid, October 10, 1972, p. 3.

Dr. Ahmed Taleb Ibrahim, Minister of Information and Culture, pointed out that the 44% rate of school enrollment in the Wilaya of El Asnam is the lowest in the country. In addition to the program of the four-year plan, a special effort has been made for primary schools (possibility of constructing 1000 classes, 700 lodgings and 100 polyvalent classes), secondary schools (4 lycées, 11 technical high schools), and training (adult vocational education, creation of a Center for technical assistants, specialized in training middle-level skilled workers for public works and construction).

18. Mohammedi, Mustapha. "Où en est l'enseignement dans la daïra d'Ain Témouchent" (What is the educational situation in the daïra of Ain Temouchent?). El Moudjahid, October 11, 1972, p. 6.

The primary school situation is satisfactory, with an enrollment of 50%. The secondary school situation is not favorable, and is characterized by a distortion of the school and boarding capacities in comparison with the numbers of students. The authorities of the daïra propose several constructions on the basis of the distribution and capacities of the existing establishments.

19. "Recrutement d'élèves-professeurs pour l'enseignement moyen et d'élèves maîtres instructeurs et instituteurs pour l'enseignement élémentaire" (Recruitment of student teachers for technical high schools and for elementary schools). El Moudjahid, November 5-6, 1972, p. 6.

There are still openings in the Educational Technology Institutes, and the Ministry of Primary and Secondary Education is organizing an additional section. Recruiting is done for each sector on the basis of either diplomas or examinations. The article gives the details relevant to payment and registration.

20. "L'étudiant et la paperasserie" (The student and red tape). El Moudjahid, November 11, 1972, p. 5.

Despite the fact that students who have taken their baccalaureate degree have files in every school they have ever attended, and have accumulated a file in order to take the examinations they need 40 documents to register at the University, to get a room and a grant, and to be admitted to the university restaurant. With all this, when do they find time to study? Since all the papers are practically the same, an efficient coordination would contribute to a saving of time and effort for the student.

21. "L'enseignement dans le Souf" (Education in the Souf). El Moudjahid, November 12-13, 1972, p. 7.

The daïra of Souf, which has a technical high school in its chief town, has limited educational resources. Another technical school and a technical lycée should be built. The teaching staff is reduced to a minimum. Provision should also be made for boarding facilities.

El Oued has the highest percentage of Arabic literacy.

An institute of religious education ("Enseignement originel") was founded upon independence. It has four hundred students, and a dormitory is being planned.

22. "Regards sur la daïra d'Akbou. L'enseignement, un domaine très éloquent" (A look at the daïra of Akbou. Education, a very eloquent field). El Moudjahid, November 22, 1972, p. 7.

School enrollment here was no more than 35% in 1962; today it is 70% and will rise to 80% next year, an indication that this sector has been put at the top of the list of problems to be solved. The head of the daïra emphasized the efforts that have been made in the last four years. Education has been spread to the most isolated and inaccessible spots. The educational structures and the number of dormitory places have been enlarged, but the shortage of teachers is hindering the development of the plans. Excellent results have been achieved with primary schools. In secondary education, there is only one technical high school with 200 places, and the crisis is particularly acute in technical education, as a multi-disciplinary lycée is planned in three years' time.

An Islamic Institute for girls, with a capacity of 800, is to be set up in Akbou. The National College of Technical Education will not open this year because of a shortage of teachers.

23. Mansouri, M. "Spécial Aures. La scolarisation connaît une expansion remarquable" (Special report on Aures. School enrollment is increasing remarkably). El Moudjahid, November 23, 1972, p. 2.

Despite the great effort which has been made since independence, this wilaya has remained behind in terms of school enrollment (a rate of 34%).

Several new projects have been planned in addition to the previous program which is now being carried out. The effort to make elementary education more democratic should be pursued in technical and secondary schools, by increasing the dormitory capacities and the facilities of the existing establishments.

The present reform of the educational system should make it possible to save students who are victimized by the age limits and kept out of school, and those who get a Certificate of Professional Aptitude but are unable to find work — at least work which corresponds to their qualifications.

The intensive development of the educational system announced by the special program is continuing.

Educational organization - Vocational education

24. "Ouargla: La formation professionnelle" (Ouargla: Vocational training). El Moudjahid, October 18, 1972, p. 2.

Vocational education in the Sahara is a purely social activity, training masons, electricians and plumbers who cannot find jobs. To rectify the imbalance in the supply and demand (caused especially by the oil companies), the means must be set up of giving adequate technical training. A large part must also be reserved for the Saharan woman's technical and social promotion.

25. "Formation professionnelle. Réunion de la commission mixte algéro-soviétique" (Vocational training. Meeting of the Algerian-Soviet mixed committee). El Moudjahid, November 16, 1972, p. 4.

The Soviet and Algerian delegations will study together the problems related to vocational training both in Algerian training

establishments (the National Institute of Hydrocarbons and Textiles, metal factories, hydrotechnical and polytechnical schools and various training centers) and in the specialized schools of the Soviet Union.

26. "Les techniciens supérieurs des forêts seront formés à Batna" (Skilled forestry technicians to be trained at Batna). El Moudjahid, November 21, 1972, p. 3.

Within the framework of the reorganization of agricultural education and adaptation of education to the country's needs, old regional agricultural schools are to be transformed into ITMA'S, and new establishments of this type are to be created (at Batna, for example). The regional agricultural schools will dispense a general agricultural instruction to train personnel with multiple skills. The aim is to train specialized workers in order rapidly to cover the country's requirements in skilled staff.

The article goes on to speak of the program and the capacities of the school at Batna, which will henceforth be the site of all the country's forestry education facilities, and which will also give refresher courses for forestry agents who are already at work.

Educational organization - Higher education

27. "Formation et développement" (Training and development). El Djéich, no. 110, July 1972, pp. 58-60.

In order to satisfy new requirements, and to make the personnel necessary for the implementation of the country's development projects for the four-year plan more democratic and more available, the technology institutes provided for by governmental decree of Nov. 26, 1969 have been founded.

Their task is the rapid training of a large number of the necessary skilled workers and technicians. They are guided by three principles: the intensity of the training objectives; the unusual nature of the training; the urgency of the training measures. The education includes a training period and group work, and seems to be progressing well.

28. "Rentrée universitaire. Des progrès et des problèmes" (The beginning of the new university year. Progress and problems), by M.K. El Djéich, no. 113, October, 1972.

After a hard summer of participation in the work of the Algerian Revolution, the students are returning to the university. There are certain inadequacies in the university situation, especially from the standpoint of administration, including problems of capacity (restaurants, dormitories, libraries, registration offices).

The reform of higher education has had positive results. The proportion of successful students has increased remarkably. A judicious application of the distribution of grants is expected this year. Certain modifications have been introduced to make up for the inadequacies noted during the first year of the reform (1971-72). The use of the national language will become more widespread.

There are 10,000 new students, representing a 10% increase in comparison with 1971-72 (24,448).

27. Jungua, Daniel. "Algérie. La nouvelle université de Constantine pourra accueillir jusqu'à vingt mille étudiants" (Algeria. The new university of Constantine will have a capacity of twenty thousand students). Le Monde, October 7, 1972, p. 5.

The new university of Constantine is one of the key elements in the Algerian four-year plan. It will not be operational until the end of 1973. The overall cost is estimated at 23 million old francs. Added to this are 3.5 million (old francs) for scientific equipment and 500 million for the library. The projected capacity is twenty thousand students. In 1971-72, the university counted some five thousand students. A complete cycle can be followed in almost all disciplines.

The living and working conditions are very difficult for the moment, but the students are managing well.

The authorities flatter themselves with being the first to apply rigorously the educational reform decided in July and August 1971. All the measures taken are meant to facilitate the quickest possible training of the skilled workers that the country needs. The university of Constantine is serving as a test ground for future projects.

30. "Ecole Nationale d'Administration. Préparation par correspondance au concours d'entrée à l'Ecole Nationale d'Administration" (The National School of Business Administration. Preparation for the National School of Business Administration's entrance examinations by correspondence). El Moudjahid, October 20, 1972, p. 3.

The task of this school is to give a four-year course of study to train executives for the Central Government offices and the external services. It includes four specialized sections starting in the third year. Specially drawn up courses, study plans, homework subjects and sample examinations are supplied free to those candidates who request them.

The article specifies the admission requirements and tells how to prepare applications.

31. Souissi, Zoubair. "L'Université de Constantine, une plate-forme idéale pour l'application de la réforme de l'enseignement" (The University of Constantine, an ideal platform for the application of educational reform). El Moudjahid, November 15, 1972, p. 6.

The author studies the reforms made in the Algerian university in August 1971. He discusses the transformations they will make in the students' and the teachers' lives, and the new impetus they have given to university social and cultural life. The results of this first year in Constantine are encouraging. Success has been more pronounced in the new institutes than in the traditional faculties. Certain material and personnel problems persist.

32. "II° Plan Quadriennal. 'L'enseignement supérieur' au centre des travaux de la 1ère commission du CNES" (Second four-year plan. "Higher education" at the work center of the 1st CNES commission). El Moudjahid, December 2, 1972, p. 2.

The first commission of the national economic and social council (CNES) was concerned with the problems inherent in primary and secondary education.

It opened the education file with a discussion of the efforts made in this field and the achievements of the first three years of the four-year plan.

33. "Gestion socialiste des entreprises. Le statut de l'université" (Socialist business management. The status of the University). El Moudjahid, December 19, 1972, pp. 1 and 2.

This article reports on the setting up of specialized work sub-committees and the study of three bills concerning the status of the university and the creation of a national organization and of a national council for scientific research.

Adult education

34. "Formation et développement. II - Formation professionnelle des adultes et développement national" (Training and development II - Adult vocational education and national development). El Djelch no. 110, July 1972.

Since independence, adult vocational education, which used to be complementary to the French vocational training system, has rethought its training policy, taking into account the overall economic development of the country. It is at once a factor of industrial development, a means of preventing unemployment, an essential element in promoting the laborer and raising the educational and cultural level of the working women's emancipation a concrete reality.

There are 27 vocational education centers, and 107 annexes, totaling 545 sections. These centers have a total capacity of 10,000 students one-half of whom live in dormitories. The instruction is multi-disciplinary.

Professional technical committees are responsible for drawing up a plan of action for training in the different sectors of activity.

35. "Campagne d'alphabétisation dans la daïra de Timimoum" (Literacy campaign in the daïra of Timimoum). El Moudjahid, October 24, 1972, p. 7.

The article reports on a meeting of the authorities to study the progress of the literacy campaign. Several problems were studied, and the reading courses which have been started in the mosques were noted with satisfaction.

36. "Alphabétisation: un millier d'adultes suivent des cours à l'institut islamique de Tlemcen" (Literacy: one thousand adults are attending classes at the Tlemcen Islamic Institute). El Moudjahid, December 26, 1972, p. 7.

These classes are held in the framework of the efforts undertaken by the Institute to teach a large portion of the population to read. Enormous efforts have been made by the teachers, but there is a problem of space shortage.

Religious education

37. "Construction d'un Institut Islamique à Khenchela" (Construction

of an Islamic Institute at Khenchela). El Moudjahid, October 22-23, 1972, p. 7.

This institute, which is in the process of being built, already includes six classes, two of which are for women. It will make it possible to take off the streets children who have been expelled or have been unable to continue their studies.

38. "L'Enseignement original en Algérie" ("Original" education in Algeria). El Moudjahid, December 13, 1972, p. 6; December 14, p. 6 (two full pages).

"Original" education is far from being purely religious in nature. Its aim is to give the country's youth an intellectual and spiritual instruction, to train scientifically and spiritually educated citizens. Created just after independence, original education gathers together students from all the Islamic countries. The article explains exactly what it is, gives a list of all recent and continuing constructions, and announces the creation of a pilot school for the teaching of the Koran.

39. "Enseignement original" ("Original" education). El Moudjahid, December 27, 1972, p. 3.

"Original", or religious, education plays a determining role in the cultural revolution. An Islamic Institute has been created in the wilaya of the oases.

The lycées of religious instruction give special courses for late beginners at all levels from the first year of secondary education to the baccalaureate, and provide a new chance for young people or adults who have not been able to continue their studies.

Artistic education

40. "L'enseignement de la musique: une politique à long terme" (Music instruction: a long-term policy). El Moudjahid, October 4, 1972, p. 5.

As preparations are being made for the third festival of Andalusian music, the question arises of how it is possible to teach this art, since this music is neither heard nor written.

The creation of the National Institute of Music has been interpreted as the solution for the teaching of Andalusian music, and should provide the occasion for seeking an adequate notation using the universal signs.

41. Mohammedi, Mustapha. "Beaux-Arts: Etendre l'école d'Oran, alléger celle d'Alger" (Fine Arts: extending the Oran school, and lightening the burden of the Algiers school). El Moudjahid, October 18, 1972, p. 3.

Faced with an overflow of students, the authorities decided in 1971 to raise the entrance level. The school, which was first municipal, then regional, has now become national.

The quality of the education has increased greatly. The problem of quantity remains important. The students of the Algiers school cannot find enough housing. The creation of an annex to the school of fine arts may solve this problem, but grants should be instituted.

Special education

42. Chabane, Azzedine. "Les enfants d'un 1er Novembre" (The children of November 1). El Moudjahid, November 1, 1972, p. 5.

This article is an enquiry concerning the children of Chouhada, comprising 220,000 civilian and war orphans, and 30,000 government wards. These children were placed directly in the national school system. An orientation office was created to follow their training closely. Two thousand of these children are attending primary school, 1800 are enrolled in the lycées and technical schools, and 800 are going through training periods in the vocational education schools.

Fifteen centers of primary education are backed up by the centers created for disturbed children.

Despite the centers which have been created, the authorities still have one serious concern — putting as many children as possible in boarding school. An attempt is being made to specialize the centers in training children for secondary schools.

43. "Après la conférence mondiale sur l'informatique, création à Alger d'un centre international pour la formation de cadres africains, propose l'IBI" (After the World Conference on Data Processing, creation of an international center for the training of African cadres, propose the IBI). El Moudjahid: November 16, 1972, p. 4.

The series of recommendations made at this conference, held in Florence under the aegis of the International Bureau for Data Processing

(IBI) and UNESCO, repeats almost exactly what was decided in Algeria three years ago. The training effort appears to be the best guarantee for the success of this policy. Algeria's experience has been followed attentively by the international organization, whence negotiations between the IBI, the Algerian authorities and the CNI to create an international center in Algiers. The task of this center would be to train African and Arab specialists and to prepare executives for modern business and public service management.

Arabization and bilingualism

[The term "Arabization" used here means the adoption of the Arabic language as the vehicle for instruction in all subjects (except, of course foreign languages).]

44. "Arabization, la seconde étape" (Arabization, the second step). El Djelch, no. 110, July 1972, pp. 56-67.

Difficulties within the framework of academic education, artificial obstacles existing in social life, problems due to the attempt to annihilate the national culture during the colonial period — all these problems, arising on two levels, that of language and that of writing — have not kept the recovery of the national language from gaining immense ground in a short time. The last struggle is in the field of technology.

III. LIBYA

Educational organization

45. Education in Libya. The Middle East and North Africa 1971-72. Eighteenth edition, London, 1973 pp.

Pages 470 and 471 of this book give general information on education, with statistics and an account of the historical development. There is also a list of the names and addresses of the establishments of higher education, the libraries, museums, cultural centers, etc., in Libya.

46. "La Libye est-elle viable ?" (Is Libya viable?). Maghreb, no. 53, September-October 1972, pp. 41-60.

With 73% illiteracy, Libya has a very low cultural level.

Two recently created universities, at Tripoli and Benghazi, count fewer than 10,000 students. For the rest of the population, information, education, and culture are largely dependent upon Egypt, from which the country receives books, newspapers and revues.

This Egyptian cultural influence is not recent; it was born with Italian colonization, when numerous Libyans sought refuge in Egypt and were trained in the universities there. It continued under the British administration, which called in Egyptian instructors.

47. "M. Mzali s'entretient avec le vice-ministre Libyen de l'éducation (M. Mzali meets with the Libyan vice minister of education). La Presse, December 6, 1972, p. 2.

Mr. Ibrahim Mohâmed El Fellah, Libyan vice minister of instruction and education, met with the Tunisian minister of education to discuss the activities of the department of education, the problems in education, and the possibilities for cooperation between the two countries in sending Tunisian teachers to Libya and exchanging students;

IV. MOROCCO

Philosophy and theory of education

48. "Mémoire-réponse du partie de l'Istiqlal à la lettre royale du 23 Septembre 1972" (Report-reply of the Istiqlal party to the royal letter of September 23, 1972). L'Opinion, November 21, pp. 3 and 4.

Several passages in this long report concern education.

The Moroccan school must be defined in accordance with the country's civilization and religious convictions, and it must raise the general intellectual level. The Islamic institutes must also be given their due, and permitted to continue their mission.

Current education is anti-national. It does not fulfill the basic choices made unanimously by the people. The dangers of unemployment are aggravated by the low educational level, and its most serious aspect is, as in the past, that of the pseudo-intellectuals

49. "La répression ne peut résoudre la crise de l'enseignement" (Repression cannot solve the educational crisis). L'Opinion, December 12, 1972, pp. 1 and 5.

For a number of years now Moroccan education has been floundering in an increasingly acute crisis due essentially to the lack of a national educational policy and to the authorities, refusal to make the necessary radical reforms. They opt, rather, for repressive tactics. Recourse to such measures can in no way solve the educational crisis; rather, it aggravates it. There have been many strikes and demonstrations in the country. Primary school inspectors gathered to attend a training course organized by the Ministry of Education were besieged by the police after the ministry decided to cancel the course.

50. "Dans un communiqué du bureau syndical de la F.A.E. à Kenitra: L'unité d'action est une nécessité inéluctable et un devoir national" (In a statement from the syndical office of the F.A.E. at Kenitra: Unity of action is an inescapable necessity and a national duty). L'Opinion, December 17, 1972, pp. 1 and 3.

The teachers wish to fight to free the country from its educational crisis. The Ministry of the Interior has been empowered to intervene in educational problems (special powers granted to civil servants to intimidate teachers and students, imprisonment, dismissal from school).

Foreign military personnel are unbalancing the budget and lie at the origin of the deterioration of morals and the present wave of atheism, according to the statement. The students have become the guinea pigs for such experiments as the introduction of modern math. Educational problems abound, the chief ones concerning the intervention of the Ministry of the Interior, the release of the teachers who have been jailed, administrative reform; and the material situations of teachers and of student teachers.

51. "Décoloniser l'enseignement" (De-colonizing education). L'Opinion, December 17, 1972, p.1.

The 1972-73 school year is no better than were the preceding ones. Evidence of the crisis in secondary and university teaching has appeared in many cities of the country. There is the problem of universal education, problems of quantity (facilities, teachers) and of quality (teaching programs and methods). The content of the education is not compatible with the country's needs. The causes of the crisis are numerous but easy to define. The basic ones are the absence of an awareness of public affairs in the national movement and the patriotic organizations, and the retention of colonial structures in education. The real solution lies in the de-colonization which is being demanded by the Moroccan people.

52. "Répondant à l'appel lancé par la FAE-UGTM. Les instituteurs marocains se mettent en grève aujourd'hui" (In response to the call made by the FAE-UGTM, Moroccan teachers go on strike today). L'Opinion, December 21, 1972, p. 1.

The teachers are intending to pursue their struggle for their material demands and also for those related to the nation's basic choice — a choice which has been rejected by the authorities.

In the universities, the strike continues to paralyze higher education, and the lycees and colleges of secondary education are also touched by the strike.

53. "La crise et sa solution" (The crisis and its solution). L'Opinion, December 22, 1972, p. 1 Editorial.

Education continues to be victimized by a policy leading to a total break between the population and the members of the government. This situation arises from the refusal to make education, Arabization and Moroccanization universal.

The school attendance figure in Morocco is around 1,600,000, whereas that in Algeria exceeds 2,800,000. And Algerian achievements in the field of facilities for 1971 are greater than all the objectives for Morocco's 1968-72 plan.

The only solution to this crisis, which is a general expression of the deterioration of the political, economic and social situation, lies in a profound change of substance and of methods.

Educational organization

54. "1er congrès national des adjoints techniques. Une réforme radicale de l'enseignement s'impose" (First national conference of technical assistants. There must be a radical reform in education). L'Opinion, October 22, 1972, p. 3.

This is a general study of education.

General education is dispensed by the Ministry of Education, the cultural missions and private establishments. The schools are concentrated in the cities. Educational aims are far from being national ones. The percentage of school-age children who are enrolled in only 20.7%.

There is also much inadequacy in technical and professional instruction, which have been taken over little by little by the ministries and organizations concerned. They are handling only between 25 and 30% of their capacity.

Expenditures devoted to education represent 26% of the budget, 7.3% of which are devoted to technical instruction.

The chief remarks made after 15 years are the following: an education which is dependent on foreign countries; an imported content; the class character of the education, hence a demand for universal education, for programs suitable to the peoples' needs and aspirations, for enrollment of rural children, for an instruction given in Arabic by Moroccan, not foreign, teachers, and for a reform of technical education.

55. Tebani, Ahmed. "Teroual: la situation actuelle, l'enseignement" (Teroual: the current situation, education). L'Opinion, October 27, 1972, p. 7.

Since independence, the education sector has been neglected from the structural standpoint, at the national level, and also from the viewpoint of orientation policy and local conception. The rate of enrollment has fallen disastrously. This has led to a system of grouping several courses in a single classroom, which is harmful to both teachers and students.

The closing of the center for agricultural training is the most harmful thing which has been done to the youth, for this center prepared farmers' sons to become modern farmers.

The lamentable living conditions (food and dormitories) of the students in secondary schools, who are obliged to pursue their studies without grants for living expenses, leads them to abandon their studies at the outset and to swell the mass of the rural unemployed or of juvenile delinquents.

56. "Insatisfaction justifiée" (Justified dissatisfaction). L'Opinion, November 1, 1972, p. 1.

A speech given by the Minister of Primary Education has finally broken the silence of the authorities, maintained for more than three weeks after the beginning of the 1972-73 school year. This silence was very disturbing, after the troubles of last year. An insufficient number of classes has been opened. The total number of children enrolled is 1,215,147. In comparison with the population and with the birth rate, the results are inadequate, especially compared with those of Algeria.

Secondary, religious and university facilities are inadequate and if the authorities' silence disquieted the citizens, their statements on what has been achieved are far from appeasing them.

57. "Maroc. Un dossier d'Al Alam sur l'enseignement" (Morocco. Al Alam's report on education). Revue de Presse, vol. 17, no. 170, December 1972, pp. 14-15.

Extracts from editorials concerning secondary and higher education, and educational doctrine. The article speaks of the inadequacies at all levels of education, and of the necessity of basing instruction on the national situation, language and civilization.

58. "Vive tension à la cité universitaire à Rabat. La police encercle la cité universitaire, arrête les étudiants et expulse les étudiantes" (Tension at the Rabat University residences. The police encircle the university residence, arrest the male students and expel the female students). L'Opinion, December 10, 1972, pp. 1 and 3.

After going on strike and holding a demonstration which was dispersed by the police, the teachers of the second cycle organized a general assembly. Their demands concern respect of the university premises, release of political prisoners, satisfaction of student claims (grants, housing, restaurants). The police expelled the female students and arrested the male students. The students' demands have never been met.

59. "La crise de l'enseignement est due au rejet des choix fondamentaux de la nation" (The educational crisis is due to the rejection of the nation's fundamental choices). L'Opinion, December 14, 1972, pp. 1 and 4.

A report published by the Ministry of Education, parts of which are reproduced in this article, does not seem to have contributed anything new. The crisis is not a passing one, but is profound, calling into question an archaic system, and resulting from the policy followed for 10 years now, rejecting the national principles adopted by the Moroccan population with respect to education.

The article reports on official statements by the National Syndicate of Higher Education at the Faculty of Law, the National Union of Teaching Inspectors, and the Moroccan teachers at the Hassan II Agronomics and Veterinary Institute.

60. Gravier, Louis. "Maroc. Le mouvement de contestation s'amplifie à l'université" (Morocco. The movement of contestation grows at the university). Le Monde, December 16, 1972, p. 3.

A report on the causes of the movement and the demands made by the different groups of strikers.

Educational organization - Vocational education

61. "L'Expansion technique et la contribution à l'expansion économique" (Technical expansion and the contribution to economic expansion). L'Opinion, October 8, 1972, p. 4.

The editorialist of Al Alam devotes this editorial to the problems which exist in technical education in Morocco, despite its prime role in the economic and social progress of the country. According to the statistics on the numbers of students at the different levels, it is noted that technical education is not following a stable policy taking into account the country's considerable requirements in technical staff.

62. "Expérience pilote à Fes sur la formation et le perfectionnement professionnels" (Pilot experiment at Fes on professional training and re-training). L'Opinion, October 16, 1972; October 17, 1972, p. 5; October 21, 1972, p. 5.

Within the framework of the activities of the provincial labor commissions, meetings took place starting in March 1970 to clarify the labor and employment situation, to help determine the Businesses' labor requirements, and to estimate the needs in professional training and re-training.

Work groups have studied the various firms — their structure, their activities, the levels of their employees, and the intelligence and adaptability shown by the workers. To complete the study, an experimental action of training and re-training was undertaken, which was interesting in its experimental nature, its preparation, the way in which it proceeded and the results obtained. It will provide lessons for various other actions aiming at filling the needs which have been noted.

Actions of this type can be carried out throughout the country, and this will, by defining the appropriate types of action and the means to be used, make it possible to take the measures suitable for meeting the overall needs of the national economy.

Educational organization - Higher education

63. "L'éditorial de notre confrère 'Al Alam'. L'enseignement supérieur forme-t-il les cadres techniques et littéraires? (An editorial by our colleague 'Al Alam'. Is higher education training technical and literary cadres). L'Opinion, October 6, 1972, p. 4.

The editorial which is spoken of discusses the situation in higher education and the factors which hinder it from carrying out its prime mission. The university in Morocco finds it impossible to meet the country's needs. The annual growth rate is on the order of only 1,445 students, which shows the weakness of higher education and suggests strongly that it cannot contribute to the economic and intellectual progress of the country, nor train the skilled staff necessary for the achievement of the objectives of the successive plans. Both secondary and higher education are faced with the same obstacles: low enrollment, weakness of academic content, confusion in orientation, dependence on foreign instructors.

Higher education should be reexamined and its faculties and higher institutes should increase in number. The number of scholarships granted remains low, and the fundamental choices made have been subjected to lively criticism.

64. "L'échec de la formation" (The failure of training). L'Opinion, November 23, 1972, p. 1.

Morocco is wanting in trained staff, a fact which arises from the failure of planning in the educational field, and from an insufficient number of high-level skilled personnel. The closing of the Higher Normal School has aggravated this situation. Cooperation is conceived in such a way as to perpetuate dependence on foreign countries, which, instead of sending their most qualified staff, send a personnel which often does not meet a suitable standard.

The planning of training in the other sectors often lacks any real reference to the actual needs, thus leading to emigration and unemployment.

65. "L'Institut supérieur de Commerce et d'Administration des Entreprises a déjà quatre mois" (The higher institute of commerce and business administration is already four months old). L'Opinion, November 25, 1972, p. 4.

This establishment is open to candidates who have a scientific baccalaureate. It favors the policy of "Moroccanization", for before, students had to pursue their studies in foreign countries, and preferred to stay there.

The aim is to prepare general executives with a varied training, who have mastered the concepts and techniques of management. The instruction is a practical one, though leaning on theoretical analysis. Three practical training periods are organized during the period of studies. The teaching methods used are those of the large foreign business schools and the staff is basically a national one, with some foreign teachers for the beginning. The studies are to last three years, and form a complement to university training.

Religious education

66. "Authenticité culturelle et décolonisation" (Cultural authenticity and decolonization). L'Opinion, October 14, 1972, p. 1.

"Original", or religious, education has long been concerned with the study of Islamic thought and the Arab-Islamic civilization. During the period of the protectorate it played an undeniable role in the struggle against foreign domination on the cultural and political levels.

Logically, the government should have set great store by the development of this education, but since 1962 there has been a rapid fall in the number of students and in the budget, and a deterioration of the faculties.

The 1968-1972 five-year plan is oriented towards the gradual elimination of religious education which is judged to be "unnecessary". Even at the level of opportunities for graduates, priority is given those who are fluent in French, and there is thus a segregationist selection of the colonial type.

Any national government should favor and encourage such an education, thus ensuring one of the most effective instruments of cultural decolonization.

Special education

67. "L'Enseignement libre israélite et étranger" (Jewish, foreign, and private education). L'Opinion, October 11, 1972, p. 3.

This is an editorial from Al Alam devoted to the problems in private education in Morocco, and those created by Jewish and foreign education.

The Ministry of Education has encouraged only a few secondary schools, with a capacity of slightly over 15,000 students. Private primary education counts 115 establishments and contributes greatly to filling the gaps in public instruction (lack of trained staff, lowering of standards, instability of programs). The tuition is very expensive, and there is no government control over either the sanitary or the educational aspects of these schools. These last two aspects are even more serious with respect to Jewish education. This field was directed first by the Jewish Scientific Alliance, then by the Morocco Alliance, and was interrupted only between 1960 and 1965. Here again, Morocco has no control over this outward-oriented education which is based on social, community and foreign factors.

The education dispensed in the foreign missions is also remote from Moroccan education.

Private education does contribute to the education of the population, but should be subjected to a certain control and orientation. Jewish education, for its part, should be integrated into the public school system.

68. "A l'occasion de l'inauguration à Rabat des cours de rattrapage organisés par la jeunesse Istiqlalienne le Pr. Allal el Fassi déclare: le savoir ne peut être dissocié de la praxis" (On the occasion of the inauguration at Rabat of the special courses for late beginners, organized by the Istiqlal youth, Prof. Allal el Fassi declares: knowledge cannot be dissociated from praxis). L'Opinion, December 24, 1972, pp. 1 and 3.

This school was created to give courses for students dismissed from various academic establishments. Volunteer teachers, some of whom have not yet finished their own studies, give the necessary courses. These courses must be considered as a sequel to the Moroccan national school.

Arabization and bilingualism

69. "Communiqué de la Fédération Autonome de l'Enseignement. Les enseignants militent en faveur de la langue arabe et de l'humanisme marocain" (Statement by the Autonomous Federation of Instruction.

The teachers militate in favor of the Arabic language and Moroccan humanism). L'Opinion, December 16, 1972, pp. 1 and 4.

The FAE is satisfied with the success of the strikes. The teachers are militating for the protection of the national values and of Moroccan humanism. The chief claims of the teachers are stated again. They concern their integration, pay, and the possibility of changing from one cycle to another.

70. "En déclenchant une grève générale le Jeudi 21 Décembre 1972 : le corps enseignant a confirmé son opposition au déviationisme syndical. Tous les secteurs de la vie au Maroc doivent être arabisés" (At the beginning of a general strike on Thursday December 21, 1972: the teaching staff confirmed its opposition to syndical deviationism. All sectors of Moroccan life should be Arabized). L'Opinion, December 23, 1972, pp. 1 and 3.

This strike reflects the teaching staff's awareness of the need for a radical change on the basis of Moroccan humanism. The Arabic language should be restored to its rightful place through its universal use in education.

The article is followed by a list of the demands of the teachers of Kenitra.

V. TUNISIA

Philosophy and theory of education

71. "A la conférence générale de l'UNESCO. M. Mohamed Mzali: la rénovation des systèmes éducatifs a toujours été au centre des préoccupations de la Tunisie" (At the UNESCO general conference. M. Mohamed Mzali: the renewal of educational systems has always been one of Tunisia's prime concerns). La Presse, October 27, 1972, p. 4 (2 columns).

Reflection on the educational situation and objectives leads to consideration of the ideas of renewing education and making it more democratic, and also of the idea of international cooperation. The increase in the number of schoolchildren enrolled during the last ten years illustrates the considerable development of the educational system. This situation is disturbing the public finances of the country and its balance of payments, but it is the result of a fundamental choice made at the dawn of independence. As President

Bourguiba has said, manual training must be given a more important place. The right to an education must henceforth be considered as the right to a permanent education.

It is Tunisia's intention to participate actively in the programs of UNESCO.

72. "En installant le Conseil de CERES M. Mzali: le gouvernement est déterminé à repenser la recherche scientifique pour qu'elle joue son rôle dans la bataille pour le développement" (Setting up the council of the CERES [Center for Economic and Social Studies and Research], M. Mzali: the government is determined to give new thought to scientific research so that it may play its role in the struggle for development). La Presse, December 7, 1972, pp. 1 and 6.

On this occasion the minister recalled that the Ministry of Education has been concerned with rethinking and renewing the methods and functioning of the research institutes and centers, owing to a lack of coordination on the national level. He then went on to define the mission of the CERES.

73. "Débat de l'Assemblée Nationale sur le budget de l'Education. M. Mzali: 'Notre politique éducationnelle vise à renforcer l'effort déjà déployé dans le domaine de l'enseignement'" (Debate at the National Assembly on the Education budget. M. Mzali: "Our educational policy aims at reinforcing the effort already made in the field of education"). La Presse, December 17, 1972.

In his reply to the deputies' questions, Mr. Mzali spoke of the social and academic aspects of education questions and of the options chosen in this field.

In the first part of his speech, he raised the problem of school failures. This is not a problem exclusive to Tunisia, and it is related to the conception one has of the school's mission. The Ministry of Education, he said, is working to reduce these failures by encouraging the founding of primary schools. The causes of such failure are inherent not only in the educational system, but also in the social conditions in which the students live. It is a question of development, and education forms only a part of this question.

He emphasized the necessity of reinforcing the inspection of private establishments. He refuted the idea that there was a disequilibrium between the different regions of the country.

The minister then examined the question of scholarships and dormitories, and gave a brief description of education in the governorate of Jendouba.

Other questions discussed were the reinforcement of religious instruction, teaching staff, programs, cooperation, and the material situation of the teachers.

74. "Participation tunisienne au congrès des ministres arabes de l'éducation" (Tunisia's participation in the conference of Arab ministers of education). La Presse, December 21, 1972.

Tunisia will participate in this conference, which is the fourth of its kind, and which is being held under the aegis of the Arab organization of education, culture and sciences. The work is to begin on December 23, and will concern the development of education in the Arab countries, the strategy of Arab education, especially in the fields of the literacy campaign and adult education. The conference will also discuss Arab and international cooperation in the field of education.

Educational organization

75. Bsais, Abdeljabbar and Christian Morrison. Les coûts de l'éducation en Tunisie (The cost of education in Tunisia). Cahier du CERES, Série Économique no. 3, June 1970. 184 pp.

This study is made up of three parts. The first, by A. Bsais, is devoted to the overall costs of education, by large categories. The author studies the development of education expenditures for functioning and facilities, and the expenditures made by the State Secretariate of Education. The second part, also by Bsais, discusses the numbers of students, and the per-student costs of public education in Tunisia, with respect to the Secretariate and the other ministries. The third part, written by C. Morrison, studies French cultural aid, the costs of schooling by the M.U.C.F. and the private Catholic education of Tunisian students.

In his conclusion, Mr. Morrison raises the controversial question of adaptation of education to the market.

76. Bacha, Najet. L'éducation en Tunisie depuis la réforme de 1958. Revue Tunisienne des Sciences Sociales, 7 (30-31), 2nd and 3rd quarters, 1972, pp. 167-188.

Education expenditures place a very heavy load on the Tunisian government. The expenditures which have been undertaken may not all be justified economically. The sums devoted to education may be considered as a "consumer expense" (although these should be minimized in an underdeveloped country) or as an "investment expense" if the intention is to train skilled labor. Emphasis should be placed on technical education; a precise analysis should be made of the economy's needs and there should be a better coordination of the authorities in educational and economic fields.

77. Morrison, G. "Emploi et formation en Tunisie" (Employment and training in Tunisia). Revue française Pédagogique, 21, October-November-December 1972, pp. 67-74.

Despite the great effort the Tunisians have made in the field of education, the results are disappointing: secondary education does of course facilitate mobility, but it is usually inappropriate qualitatively and quantitatively to the country's needs.

78. "Un entretien avec M. Mzali, ministre de l'E.N. Actualités, problèmes et perspectives de la politique éducationnelle en Tunisie" (An interview with M. Mzali, Minister of Education. The current situation, problems and prospects of educational policy in Tunisia). La Presse, October 4, 1972, p. 2.

In this long article Mr. Mzali discusses several problems, speaking of the overall vision of education. The baccalaureate, he says, is not the only bridge to the future, and should be demystified. He speaks of the interdependence of the various steps in education, the problem of failures, the secondary schools in the interior of the country, the decentralization of higher education, and the cooperation which is underway for a future relief and for soon employing an entirely Tunisian teaching staff.

79. "Entretien avec M. Abdelaziz Ben Hassen, Directeur de l'Enseignement secondaire. La rentrée scolaire s'est faite dans des conditions satisfaisantes" (An interview with Abdelaziz Ben Hassen, Director of Secondary Education. The conditions of the beginning

of the new school year have been satisfactory). La Presse, October 25, 1972, p. 2.

In this interview, Ben Hassen spoke of the beginning of the 72-73 school year within the framework of his division. The chief problems spoken of are large classes, movements, and the appointment of teachers. The situation this year was normal, except for a few problems concerning student housing or the existence of vacant positions. For the problem of school failures, parents should help the establishment in giving the students appropriate working conditions and an effective control. Technical and professional education should also be restored to a place of prestige. The problem of inspection was also mentioned.

80. "M. Mzali: la référence à des diplômes supérieurs purement tunisiens doit devenir la règle afin d'éviter le recours à des titres étrangers" (M. Mzali: Reference to purely Tunisian higher degrees should become the rule, in order to avoid recourse to foreign diplomas). La Presse, November 21, 1972, p. 6.

This is the next of a speech given at a meeting setting up the National Commission of equivalences, created in 1964 and reorganized on September 6, 1972. This commission includes the authorities of the Ministry of Education, the Professors-Directors of establishments of higher education, and the representatives of the ministerial departments. It benefits from the technical advice of four specialized commissions (scientific and technical studies, letters, law and commercial disciplines, medicine). All Tunisians must be considered on an equal basis, regardless of the country in which they have done their studies. Foreign degrees should not be judged on the basis of other foreign degrees, but rather with reference to Tunisian degrees.

81. Balegh, Hédi. "Opinion. L'équivalence des diplômes ou le mythe de l'agrégation française" (Opinion. The equivalence of diplomas or the myth of the French "agrégation"). La Presse, December 7, 1972.

This article is written in reference to a speech by M. Mzali, Minister of Education [see above, no. 80] on the subject of equivalences. The standards on which the choice of teachers in the Faculty of Letters is based, are more severe than in the other faculties, as only those with the French "agrégation" are accepted. This agrégation is conceived for the French and not for the Tunisians, and except for the Arabic agrégation, there are few Tunisians who pass it (no Tunisian has won it for the last four years). Hence the hope that the new Commission of

Equivalences will take these factors into account and will distinguish itself by the new dynamism and the Tunisian style hoped for by Mzali. The creation of a Tunisian doctorate in several specialties is good news, as the working conditions and the doctoral work are not the same in Tunis as in Paris. The work done should be useful for the university and for society.

82. "Président une réunion de la cellule destourienne de Saida Manoubia. M. Hédi Khéfacha: le gouvernement est soucieux de trouver des solutions adéquates aux problèmes des défaillants scolaires" (Presiding over a meeting of the Destour cell of Saida Manoubia. Hedi Khefacha: the government is desirous of finding adequate solutions to the problems of school failures). La Presse November 21, 1972, p. 6.

These problems will be examined shortly in order to integrate young people into the vocational training centers. While it is true that education is the right of all young people of school age, nonetheless the potential of young people is unequal, hence a certain normal proportion of school failures.

83. "En visite dans le gouvernorat de Sousse. M. Mzali: les professeurs doivent par leur comportement et leur assiduité servir d'exemple aux élèves" (On a visit to the governorate of Sousse. M. Mzali: the teachers should serve as an example to the students by their behavior and their diligence). La Presse, December 3, 1972, p. 4.

During an inspection visit in the governorate of Sousse, Mr. Mzali, Minister of Education, gave a speech before the professors, whom he exhorted to show enthusiasm in the accomplishment of their task. The teachers should try to encourage students to have high spiritual and moral values and to integrate themselves into the national and social conditions of the country.

At Mahdia, a meeting was devoted to examination of the problems of education and to construction projects. The government is tending to increase the number of secondary schools built, and to set them up in the delegations, instead of enlarging the existing schools.

84. "L'assemblée nationale poursuit le débat budgétaire. Adoption des budgets des ministères de la Défense, du Plan, des Finances et de l'Education" (The National Assembly pursues the budgetary debate. Adoption of the budgets of the Ministries of Defense, the Plan, Finances and Education). La Presse, December 16, 1972, p. 8.

The operating budget of the Department of Education is 56,442,000 dinars, which is a 5.8% increase over 1972. The facilities budget is 13,424,000 dinars in the form of loan commitments and 7,218,000 dinars as paid loans.

The universalization of education planned under the 1966-1977 ten-year plan was based on a population growth rate which was below the real one. The minister spoke of several problems and their solutions — the reform of primary, secondary and higher education, Arabization, overcrowding of classes, and the problem of failures. He also spoke of the situation with respect to trained educational staff, and of employing a maximum number of Tunisians.

86. "Président le congrés régional de la jeunesse scolaire de Tunis Sud. M. Ahmed Zeghal exhorte les élèves à s'orienter vers l'enseignement professionnel et technique ou vers la section des mathématiques" (Presiding over the regional conference of school youth of Tunis Sud. Ahmed Zeghal exhorts the students to orient themselves towards professional and technical education or towards mathematics). La Presse, December 15, 1972.

The governor emphasized the role which devolves upon the school youth organizations as institutions which are called upon to participate actively in the attainment of the cultural objective. He emphasized the fact that since Tunisia needs skilled middle-level cadres, the students should orient themselves towards these subjects. He also spoke of the elections of student groups belonging to the General Union of Tunisian Students.

Educational organization - Vocational education

86. "M. Sayah exhorte les élèves à opter pour l'enseignement technique et professionnel" (Mr. Sayah exhorts the students to choose technical and vocational education). L'Action, October 3, 1972.

Tunisia, Mr. Sayah says, needs not only doctors, engineers and lawyers, but also skilled technical workers for the industrialization of the country, in order to increase production. He emphasizes that for this reason, technical and vocational education should be given all the attention they merit.

87. "Président une réunion des responsables des cellules destouriennes de Tunis Nord. Mr. Farhat Dachraoui: "Nous enregistrons cette année un intérêt accru pour la formation professionnelle de la part des parents et des jeunes" (Presiding over a meeting

of the authorities of the Destourian cells of Tunis Nord. Mr. Farhat Dachraoui: "We have noted this year an increased interest on the part of parents and young people for vocational training"). La Presse, October 5, 1972, p. 5.

Vocational education centers are one solution for those who fall out of school. An increased interest on the part of parents may lead to increasing the popularity of this sector of education.

Vocational training is an education with its own pedagogy and its own individual aims, to contribute to the creation of an industrial tradition in the country. The increase in the number of students who fall out of school arises from the increase in the number of children enrolled, and cannot be interpreted as a sign of weakness in the educational systems.

Vocational training is now considered as the path leading to employment and emigration. The capacity of the vocational training centers rose this year from 10,000 to 15,000. Mr. Dachraoui then spoke of three large projects to increase the number of students enrolled for vocational training.

88. "Les centres de formation professionnelle en Tunisie" (Vocational training centers in Tunisia). L'Action, October 5, 1972.

For young people under the age of 14, access is easy to the centers of vocational training. This year their capacity is to be raised from 10,000 to 15,000. There are 27 centers, 11 of which are in Tunis. There are also 65 centers of pre-apprenticeship for young people between the ages of 14 and 17.

89. "L'office de la formation professionnelle et de l'emploi au service des défaillants de l'enseignement primaire et secondaire" (The bureau of vocational training and employment at the service of those who fall out of primary and secondary education). La Presse, October 12, 1972, p. 8.

This article gives the details of the registration and the different centers, with their addresses, specialties, length of training, age and school level required.

90. "Signature d'une convention organisant la formation professionnelle dans l'armée" (Signature of an agreement organizing vocational training in the army). Marchés Tropicaux Méditerranéens, no. 1406, October 20, 1972.

A program of cooperation between the Ministry of Defense and the Bureau of vocational Training and Employment will make it possible for the army's workshops to admit 200 young people as apprentices. They will be recruited in the same way as those who are following a training cycle in businesses.

51. "La formation professionnelle hôtelière" (Vocational training in the hotel trade). L'Action, October 27, 1972.

A decision has been made to train 4,000 young people throughout the country through the professional hotel schools. Three other schools of the same type are to be built at Jerba, Nabeul and Monastir.

52. "Sfax et le problème des défaillants de l'enseignement. Réhabiliter le travail manuel et prévenir le vieillissement des effectifs" (Sfax and the problem of school failure. Rehabilitate manual work and prevent aging of the staff). La Presse, November 30, 1972, p. 2. (2 columns).

The regional council of vocational training and employment has given consideration to the problem of failures and the shortage of skilled labor in certain "traditional" professions. An organization and means must be found for recovering those who fail out of school, at the same time filling those sectors in which shortages exist (bakery, fishing, and naval construction, for example). Young people are not attracted by the "traditional" professions.

The promotion of these sectors seems to have started well, thanks above all to the solidarity of the authorities concerned with youth.

53. "Colloque maghrébin sur la formation professionnelle dans l'hôtellerie et le tourisme" (Maghreb conference on vocational training in the hotel and tourist trade). Revue de l'hôtellerie en Tunisie, no. 5, December 1972, pp. 11-13.

This conference was held in Rabat on November 27, 28 and 29. Emphasis was placed on the necessity of coordinating the countries of the Maghreb in drawing up a plan of the needs in vocational training, and on the importance of this training.

Three reports were presented, concerning hotel training, programs, methods and instructors. Certain recommendations were made concerning programs and methods, apprenticeship, re-training and further education.

Educational organization - Higher education

54. "Séance de travail consacrée à l'ONOU. M. Mzali: 55% de demandes de bourses ont été satisfaites" (A work session devoted to the National University Affairs Bureau, M. Mzali: 55% of the requests for grants have been satisfied). La Presse, December 8, 1972, pp. 1 and 3.

M. Mzali recalled the effort made by the ONOU since the beginning of the school year concerning grants, housing, cultural activities and social services. There has been an increase in the number of grants for specialization, and a large increase in the payment. In the field of housing, despite pessimistic predictions, all the requests have been satisfied, and places remain. The ONOU gives very efficient help in numerous sectors of cultural activity.

Various problems were discussed during the meeting, and measures were decided upon to facilitate the accomplishment of the ONOU's task.

Adult education

55. Simmons, J., J. Allman. "L'Education des adultes: causes et conséquences possibles de la participation individuelle aux cours d'adultes" (Adult education: The causes and possible consequences of individual participation in adult courses). Revue Tunisienne des Sciences sociales, 9 (30-31), 2nd-3rd quarter 1972, pp. 187-215?

The effort which has been made by the Tunisian government in the field of adult education seems still to be insufficient. The current programs ensure neither a greater economic output nor financial advantages for the participants. This study aims at giving the results of research done in four of the best adult education centers, two urban and two rural, and treats more the results drawn from them by the participants, than the form and content of the programs themselves.

Special education

56. "La femme rurale dans les pays arabes méditerranéens" (The rural woman in the Arab countries of the Mediterranean). La Presse, December 10, 12, 15, 1972.

Interesting observations were made possible by the seminar devoted to the functional education of the woman in rural development.

For the promotion of the economic condition of the woman, a generalized action of vocational training was recommended, and for this it was requested that vocational education be integrated into the general educational programs, with the association of women to draw up and carry out education projects. Priority should be given to women who are at a cultural or educational disadvantage.

Cooperation

97. "La coopération culturelle avec la France va être renforcée" (Cultural cooperation with France is to be reinforced). Le Monde, October 17, 1972, p. 5.

Tunisia devotes 100 million francs annually to cooperation. French participation in this effort is only 30 million francs. Given the burden placed on the budget by the total school enrollment program being carried out, it appears desirable to the authorities that their French partners enlarge their participation in this work.

98. "L'extension de la coopération culturelle entre la France et la Tunisie" (The extension of cultural cooperation between France and Tunisia). Marchés Tropicaux et Méditerranéens, no. 1406, October 20, 1972.

There are 2,620 French cooperants, the majority of whom are in secondary education (2,124, or 36% of the total number of teachers). In primary school, where the teaching staff was made completely Tunisian in 1969, cooperation appears at the level of training, with 33 inspectors and 104 pedagogical counsellors. In higher education, there are 360 teachers.

99. "Le parfait coopérant selon le ministre de l'éducation" (The perfect cooperant according to the minister of education). Le Monde, November 4, 1972.

The Tunisian minister of education recently drew the portrait of the perfect cooperant, and warned young French people "on mission" in Tunisia against the commonest faults: indifference, a superiority complex, revolutionary preaching.

Arabization and bilingualism

100. "La coopération culturelle et technique franco-tunisienne" (Cultural and technical cooperation between France and Tunisia). Maghreb, no. 53, September-October 1972, pp. 19-22.

Tunisia aspires to the creation of technological institutes of the same type as those created in Algeria. In fact, since 1968 there has been an effort to cope with the problem of adapting teaching to the country's needs, particularly those of its economy. The problem is not peculiar to Tunisia, but it is complicated there by the great rapidity with which instruction has developed, and by the craze for schooling which this development has caused among the population.

VI. SPECIAL PROBLEM - TEACHING AIDS

(The numbers in parentheses refer to the articles to be found at the end of this section).

Both developed and developing countries are in the process of renovating their educational programs. There is a universal recognition of the fact that in addition to good teachers, modern methods are of great importance in effective, universal education (1, 3).

There are two major concerns in the renewal of education—both traditional education and the systems of vocational, adult and continuing education—in the countries of the Maghreb: the best use of audio-visual means, and the full development and promotion of books and reading.

Within this context, Tunisia has reorganized its National Institute of Educational Sciences (2), whose functions include multidisciplinary research, and the preparation of and experimentation with psycho-pedagogical methods.

Audio-visual techniques are attracting more and more interest from educators and education authorities. One of the most important events in this context in 1972 was an international conference on the use of audio-visual techniques, held in Tunis under the auspices of UNESCO (4, 5, 7, 9). The purpose of the conference was to compare the results of experiments in the use of new, especially of audio-visual, methods in school and adult education and from these to formulate recommendations as to what measures should be taken to renew the education systems (4, 5).

The advent of the "civilization of the image" (5) is one of the factors behind the present upheavals in education. The most spectacular results are obtained in so-called mass education and vocational training, where audio-visual means can, among other things, help fill the gaps created by a shortage of teachers and an ever-increasing number of students (6).

There is great interest in Tunisia in these means (5, 7), and they are already being applied extensively in certain sectors and establishments (social education on the national television station, language laboratories in the Bourguiba language institute and the Bureau of Vocational Training, etc.).

Plans are underway for a closed-circuit educational radio-television network in Tunis, beginning with an experimental set-up in one school complex, with a gradual extension of the system over a four-year period (8, 10).

Great attention is also being given to the problems of producing appropriate books and of promoting reading in the countries of the Maghreb. In addition to the universal problem of promoting reading in an environment which is growing increasingly hostile to such pursuits (through the generalization of television, the high cost of books, and numerous other factors), these countries are at the particular disadvantage of being unable to produce all the books, especially the school texts, needed. They are therefore at the mercy of foreign texts which are not always suitable to their educational programs and aims (17, 18). For some subjects, in fact, no books at all exist.

Algeria produces all the texts it needs for primary schooling, all those for the first cycle of the secondary, in Arabic, and a part of the French texts used in the other cycles (11).

The Société Tunisienne de Diffusion in Tunisia is beginning to publish a fair number of school books, in addition to distributing all the imported texts, over which it has a monopoly, and the Maison Tunisienne d'Edition can take credit for having made Tunisian literature available in the education through an active publishing program (11).

The International Book Year, which includes among its themes, some of a specifically educational bearing, has been the occasion for an examination of the current situation, and for the

formulation of various policies with respect to books (12, 13). At the Maghreb Colloquium of Hammamet, special emphasis was placed on reading methods and comprehension (14), and on the necessity for a vast extension of the country's library resources, and an improved training of its librarians.

In their constant concern to spread education to the entire population, at the same time renewing and improving educational methods, the education authorities are showing a great openness to the possibilities offered by new techniques, at the same time that they keep in view the necessity of constantly verifying the appropriateness of these techniques and of the information for which they are a vehicle, to their country's individual situation and ideals.

Reference articles on teaching aids:

- (1) "Au stage sur les techniques d'enseignement de l'école moderne, M. Mzali: l'éducateur doit orienter et aider l'enfant à la découverte des valeurs sociales" (At the training period on modern school teaching techniques, M. Mzali: The teacher must orient the child and help him discover social values). La Presse, December 28, 1972.
- (2) "Décret no. 72-275 du 8 Septembre 1972, portant réorganisation de l'Institut National des Sciences de l'Education" (Decree no. 72-275 of September 8, 1972, concerning reorganization of the National Institute of Educational Sciences). Journal Officiel, Republic of Tunisia, 115/38 (Sept. 1972), 1297, 1298.
- (3) "A Sousse. M. Chtourou insiste sur la nécessité de renouveler les méthodes pédagogiques" (In Sousse. Mr. Chtourou emphasizes the necessity of renewing pedagogical methods). La Presse, December 19, 1972.
- (4) "Du 29 au 31 Mai un congrès international sur l'emploi des techniques audio-visuelles se tiendra à Tunis" (From May 29 to 31, an international conference on the use of audio-visual techniques will be held in Tunis). La Presse, May 18, 1972.
- (5) Médimagh, Ahmed. "En marge du Congrès International qui se tiendra à Tunis du 29 au 31 Mai 1972. Les techniques audio-visuelles en service d'une meilleure communication" (Notes on the International Conference to be held in Tunis from May 29 to 31, 1972. Audio-visual techniques at the service of better communication). La Presse, May 27, 1972, p. 2.

- (6) Balagh, Hédi. "La clé des champs: L'audio-visuel ("Rambling," Audio-visual). La Presse, June 3, 1972, p. 3.
- (7) "Ouverture du Congrès International sur l'utilisation des techniques audio-visuelles dans l'enseignement et l'éducation. M. Mzali: C'est au cœur de la pédagogie qu'il faut dorénavant concentrer nos efforts" (Opening of the International Conference on the Use of Audio-Visual Techniques in Education. M. Mzali: Our efforts must now be concentrated on the heart of our pedagogy). L'Action, May 30, 1972, p. 3.
- (8) El Aroui, Abdelmajid. "Projet de radio-télévision éducative en Tunisie" (Project for educational radio-television in Tunisia). International Conference, Tunis, May 27, 30, 31, 1972, 8 pp.
- (9) "Congrès international organisé sous le haut patronage de l'UNESCO" (International Conference organized under the auspices of UNESCO). Tunis, May 27, 30, 31, 1972, unpublished.
- (10) Attia, Abdelmajid, "Le circuit fermé de télévision de Tunis" (The closed-circuit television of Tunis). Report presented at the Audio-Visual Seminar organized by the Biology Institute of the University of Constantine, December 20-22, 1972. 8 pp.
- (11) "Le livre et l'Afrique" (Books and Africa). Jeune Afrique, supplément to no. 625, December, 1972.
- (12) "Les thèmes retenus pour l'année internationale du livre 72" (The themes of the International Book Year 72). La Presse, April 7 1972.
- (13) "L'année internationale du livre 72. M. Mzali: notre pays est capable de créer, de produire et d'avoir son génie propre" (International Book Year 72. M. Mzali: Our country is capable of creating, producing and having its own individual genius). La Presse, April 5, 1972.
- (14) "Colloque maghrébin Hammamet 21-25 Novembre 1972. Vers une évaluation de la difficulté des textes - matériel d'information recueilli et analysé par J. Soyez" (Maghreb Colloquium Hammamet, November 21-25, 1972. Towards an evaluation of the difficulty of texts - information gathered and analyzed by J. Soyez). National Institute of Educational Sciences. 48 pp.
- (This study includes an important bibliography).

(15) "En marge du colloque maghrébin de Hammamet. Education permanente et bibliothèques publiques" (Notes on the Maghreb colloquium of Hammamet. Continuing education and public libraries). La Presse, December 1, 1972, Dec. 2, p. 4; Dec. 3, p. 3.

(16) Ben Cheikh, Abdelkâder. "De la motivation à la lecture - Al Kitab" (On motivation to read - Al Kitab). International Conference on teaching methods, May 29-31, 1972, Tunis.

(17) "Le manuel scolaire dans l'enseignement secondaire" (School texts in secondary education). L'Action, April 16-17, 1972. Supplement, p. II.

(18) "Manuel scolaire, livre littéraire et scientifique" (School text, literary and scientific book). Seminar, Tunis, Institute of Educational Sciences, 1972. 13 pp.

(19) Béji, Habib. "L'enfant et le livre scolaire" (The child and the school text). L'Action, July 15, 1972, p. 3.

LIST OF SOURCES

L'Action, TUNIS
Africana Bulletin
Cahiers du CERES (Center for Economic and Social Studies
and Research), TUNIS
El Djrich, ALGIERS
El Moudjahid, ALGIERS
Jeune Afrique, PARIS
Journal Officiel, Republic of Tunisia
Maghreb, PARIS
Marchés Tropicaux et Méditerranéens
Le Monde, PARIS
L'Opinion, RABAT
La Presse, TUNIS
Revue de l'Hôtellerie en Tunisie, TUNIS
Revue de Presse, ALGIERS
Revue Française Pédagogique
Revue Tunisienne des Sciences Sociales, TUNIS.

LIST OF AUTHORS

(The figures indicate the articles written by these authors. Those in parentheses indicate the reference articles for the special problem, found on pages 40 - 42).

Allman, J. 95
 Attia, Abdelmajid (10)
 Bacha, Najet 76
 Balogh, Hédi 81, (6)
 Bôji, Habib (12)
 Ben Cheikh, Abdelkader (16)
 Bsais, Abdeljabbar 75
 Chabane, Azzedine 42
 El Aroui, Abdelmajid (8)
 Gravier, Louis 60
 Junqua, Daniel 29
 Komorowski, Z. 2
 Mansouri, M. 23
 Medimagh, Ahmed (5)
 Mohammadi, Mustapha 10, 41
 Morrison, Christian 75, 77
 Simmons, J. 95 . . .
 Souissi, Zoubair 31
 Tebani, Ahmed 55