

The Hashemite Kingdom of Jordan



National Center for Human Resources Development  
(NCHRD)

National Center for Education  
Research and Development  
(NCERD) :

## **An Introduction**

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## Foreword

This revised edition of the brochure witnesses the fifth anniversary of the National Center for Educational Research and Development (NCERD), and the beginning of the Second Phase of the comprehensive Education Reform Plan (ERP) (1989 - 2000).

It is a privileged honour for me to take this opportunity to express my deep gratitude to His Royal Highness Crown Prince Al Hassan for his constant support and encouragement for the Center. His Royal Highness has provided renewed impetus to the institutionalization process in Jordan. In fact, he has been the creator of the NCERD and several other national institutions. Despite his overbusy schedule, HRH has regularly followed the progress of the Center and taken active interest in its activities.

The NCERD will continue fulfilling its mission to provide for continued sustenance and support for the reform process in Jordan while serving as a model Center of Excellence for region-wide educational systems.

In order for accommodating the needs of the Second Phase of the ERP, the Center has started focussing upon vocational / technical education while expanding its Education Management Information System (EMIS) to include more comprehensive databases. At the same time, the Center is extending its research and development services to national and international education agencies and institutions in the Arab World.

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**Dr. Victor Billeh**

**President**

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## **Introduction**

The National Center for Educational Research and Development (NCERD) was created by resolution No. 27/89 of the Higher Council for Science and Technology (HCST) as an autonomous affiliated institution in 1989. It started performing its major functions during the first few months of 1990.

## **Raison d'être**

The primary reason for its establishment was to institutionalize the capacity to sustain the sectoral reform and to provide for a perennial source of support and inspiration for carrying on innovative practices and positive changes in the system in order to maintain its vigour and health, way beyond the period of reform.

The Center works in cooperation and coordination with various ministries and other public and private national, as well as, international agencies and institutions.

## **Headquarters**

The Center occupies two stories of the building of the Higher Council for Science and Technology situated at the main campus of the Royal Scientific Society (RSS), at Al Jubeiha in Amman. A new building for the Center is presently being designed by RSS and will be constructed near the Department of Statistics in Al Jubeiha.

## **The Staff**

The Center's staff comprises of five researchers, seven research assistants, four administrative staff, and eight supporting services staff. The Center, however, attempts to meet its increasing need for various types of specialized staff by appointing specialists seconded by the MOE and the Universities, or those on sabbatical or part-timers, on contract basis.

## **Governing Body**

The Center's activities are governed by an Executive Committee constituted as follows:

- The President of the NCERD (Ex-Officio Chairman).
- Secretary General of the Ministry of Education.
- Secretary General of the Ministry of Higher Education.
- Director General of the Vocational Training Corporation.
- Two representatives from Universities.
- Representative from the Ministry of Planning.
- Representative from the NCERD.

## **Objectives**

The Center, being a permanent institution for Educational Research and Development seeks to improve the educational system through:

- Systematic analysis and formative evaluation of the education administration and management system.
- Coordination and cooperation among all entities concerned with and having stakes in the educational system.
- Setting priorities in the financing and implementation of sub-projects according to educational policies.
- Enhancing the management and planning capacity of the system through establishment and operationalization of the Education Management Information System(EMIS), and training personnel from the MOE's different Directorates of Education in the fields of information processing, data analysis, rational policy planning, and impact assessment .



- Enhancing the potential of educational research.
- Developing evaluation capacity by institutionalizing the process, increasing officials' technical know-how, and enhancing their awareness of the importance of evaluation for educational improvement.
- Enhancing the capacity of the Intermediary by supporting its Technical Unit.

### **Cooperation and Coordination**

The NCERD acts in cooperation and coordination with educational authorities concerned with planning, and implementation of the ERP. The concerned parties include: the Ministry of Education, the Ministry of Higher Education, the Ministry of Planning, the Vocational Training Corporation, the

Jordanian Universities, the Higher Council for Science and Technology. The Center also promotes various types of technical cooperation with several international organizations and universities. The Ministry of Education (MOE), however, is its principal collaborator.

The Center acts as a technical arm for the MOE. The NCERD carries its developmental activities through a council named, the Intermediary.

### **The Intermediary**

The Intermediary is a special entity established by a decree from the office of the Prime Minister to provide centralized direction and coordination for implementing the national education programs and specific subprojects, financed (both multilaterally and bilaterally) by international agencies. The Intermediary consists of a Policy Council and a Technical Unit.

## **Responsibilities of The Policy Council**

The policy Council's responsibilities include:

- Approving subprojects appraised by the Technical Unit.
- Keeping itself apprised of the progress of subprojects and the program in general through regular reports of the Technical Unit.
- Making policy decisions about Sector Investment Loan (SIL) implementation in accordance with the loan agreements with the World Bank and the Overseas Economic Cooperation Fund (OECF) of Japan.
- Formulating and recommending sector policies on the basis of experience gained through implementation of SIL program and information obtained through policy analysis, research and monitoring evaluation reports.

- Carrying out mid-term and annual reviews of the program implementation with the World Bank and OECF.
- Acting as the governing body of the Intermediary.

### **Composition of the Policy Council**

The policy Council is constituted of the following:

- NCERD President.
- Secretary General, Ministry of Planning.
- Secretary General, Ministry of Education.
- Secretary General, Ministry of Higher Education.
- Director General, Vocational Training Corporation.
- Director General, Directorate of Curriculum in the Ministry of Education.
- Director General, Research and Educational Planning, MOE.

- Representative of the Ministry of Planning.

### **Educational System Improvement**

The NCERD seeks to improve the educational system through institutionalization of the following functions:

- Analysis of the educational management system in order to develop it.
- Coordination and cooperation among all entities concerned with educational system.
- Setting priorities in financing and implementation of subprojects.
- Enhancing planning capacity through processing educational information.
- Enhancing educational research and development capacity.

- Enhancing educational evaluation capacity.

### **Education Management Information System (EMIS)**

Realizing that a comprehensive computerized Education Management Information System (EMIS) will improve management, planning, and policy analysis activities of the education system, both the MOE and the NCERD made a unified effort to establish a comprehensive educational database at the NCERD.

The effective use of the outputs of an EMIS should lead to more effective educational policies and more efficient use of increasingly scarce resources. The devolution of the EMIS to the regional Directorates of Education will make, for the first time, the annual school census data for each Directorate available to regional educational administrators, planners, and managers.

Besides timely direct access to data, the regionalization process will foster direct participation and active involvement of the regional level managers and technical staff in regional policy analysis, planning and implementation decisions which, in turn, will ensure their cooperation and active support required for the success of reform effort. While strengthening the policy analysis and informed decision making capacity is critical to improving the effectiveness, efficiency and quality of the education system (the main goal of the reform program), a substantial amount of technical training is needed for the staff responsible for the implementation and handling of the EMIS -regionalization project.

The project was planned in accordance with the policy of gradual decentralization of educational planning. The Center has trained regional staff from different Directorates in data entry and analysis procedures, and deriving indicators.

## **Research Reports and Publications**

The Center plays an active role in Publication and Dissemination of salient research information. The following are some of its publications.

Publications in English include:

- Analysis of School Size and Grade Structure in Public Schools of Jordan : Policy Implications.
- Analysis of Classroom Space in the Ministry of Education Schools in Jordan.
- Social Development in Jordan.
- An Assessment of Vocational and Technical Education in Jordan.
- Student Achievement in Jordan and the West Bank: A Comparative Perspective.



- National Survey of Environmental Knowledge and Awareness of 8th and 10th Grade Students in Jordan.
- Assessment of Learning Achievement of Grade 4 Students in Jordan.
- Education and Training in Jordan : A Descriptive and Financial Survey.
- Cost and Cost-Efficiency Issues : Ministry of Education (MOE) Schools.
- Educational Finance in Jordan : Final Report.

Several reports covering different issues were published (in Arabic) by NCERD. These Publications are:

- How to Establish Educational Management Information Systems.
- Research and Studies on Basic Education in Jordan (1970 -1990), Part I. (Bibliography).

- Research and Studies on Basic Education in Jordan (1970-1990) Part2. (Abstracts of selected studies).
- National Center for Educational Research and Development and Education History of Jordan.
- Jordan's Achievement in the International Study on Science and Mathematics (1991).

- The Pilot Schools in Jordan: An Evaluation.

- An Evaluation of Teacher Training Program in Jordan.

- Characteristics of School Principals in Jordan.

- Educational and Vocational Training in Jordan.

- Characteristics of High Performance Schools Compared with Low Performance Schools in Jordan.

- School Principal in Jordan : Characteristics, Practices, and Attitudes.
- Indicators of General Education in Jordan (1989-1992).
- Socioeconomic Characteristics of Jordanian Returnees, (Part I, Statistical Analysis and Indicators; Part 2, An Analysis of Socio-Professional Characteristics; Part 3, Standards of Living and Attitudes Towards Investment in Jordan).

In addition to these, several reports on the results of National Assessment of Instructional Quality in Basic Education in Jordan have also been published.

### **Coordination**

The Center's activities include implementation / coordination responsibilities for both nationally and internationally financed programs. The internationally financed programs include:

- Japanese technical assistance grant administered by the World Bank and implemented by NCERD.
- A European Union project for improving pre-service teacher education in Jordan. (Implementing agencies are the Faculties of Educational Science of the Public Universities).
- Coordinating implementation of a Canadian (CIDA) project for vocational / technical education. (The implementing agencies are the Ministries of Higher Education and Education, and the Vocational Training Corporation).
- Implementing USAID funded activities aimed at developing the EMIS, organizing MOE study visits to teacher training institutions, and a study on vocational/ technical education.

- Mobilizing UNICEF funds for MOE to support the development of teacher training materials and activities.
- A British (ODA) scholarship fund for Ph.D. training. for Jordanian Universities.
- A post-doctoral fellowship program for university faculty in the field of teacher education. (Nationally funded).

### **Regional Cooperation**

NCERD is developing towards being a regional technical center for providing interested countries and agencies with various types of educational services which include:

- Study visits to NCERD, mainly from education policy makers, and professionals from Arab countries .

- Seminars and Workshops, held every year focusing on issues like: the role of research and development centers in improving basic education; higher education in the Arab world; enhancing national capacities in research and evaluation; monitoring learning achievement.
- Technical assistance and commissioned research for Ministries of Education in some Arab countries, and for international agencies. The countries include: Oman, Syria, Sudan, Algeria, Tunisia, Iraq, and Palestine; while the agencies include: UNICEF, UNESCO, and UNRWA.

### **National Assessment of Instructional Quality in Basic Education**

This is a continual national sample-based assessment being conducted in collaboration with the MOE. The scope of the study is defined by three grades (4th, 5th, and 8th) and three academic

subjects (Arabic, Math, and Science) judiciously determined to be observed and investigated at different points in time. In addition to this, a life skills questionnaire is administered to grade 4 students and an environmental awareness questionnaire to grade 8 and grade 10 students. The survey sample included 15,000 students from 245 schools.

The five domains of variables covered by the study include:

- 1- Community / Home background :  
Parental involvement, practices, attitudes, aspirations, expectations, and feedback mechanisms.
- 2- School Plant : Physical characteristics and facilities.
- 3- Administration and Supervision:  
Principal characteristics/ behaviours/ attitudes/ perceptions/ practices.

4- Instruction / Teacher characteristics: Perceptions, cognitions, attitudes, reported behavior and instructional practices, observed behavior and instructional practices, classroom practices, teaching-learning environment, and interaction with students.

5- Student Characteristics: Achievement levels/ cognitions and perceptions/ attitudes, preferences and motivational factors / work habits, time management, classroom and out - of - school activities and practices.

Several reports have been published on the outcomes of this study and many others are under preparation.

#### **Researchers and Research Assistants at the NCERD**

At present, NCERD has five researchers and five research assistants. Following is a brief description of their academic qualifications and research interests:



## **Researchers**

### **Dr. Victor Billeh**

He has a Ph.D. in science education from Wisconsin University, Madison, USA, 1968. He was Director of Biology Department AUB; Dean of the Faculty of Science and Arts at Yarmouk University; Dean of Scientific Research, and Higher Studies at Yarmouk University; Director of the Sector of Human Resources Development at HCST; and an educational expert at the World Bank. President of NCERD since its establishment in 1990. Dr Billeh's research interests are: education policies, educational programs evaluation, educational planning and educational management information systems.

### **Dr. Kapur Ahalwat:**

Studied at London University, has Ph.D. in Measurement, Evaluation, and Computer Applications from University of Toronto / Canada, 1976. Specialized in psychometric models, IRT, multidimensional scaling, experimental and sample survey designs,

evaluation methodology and measurement instrument development. Joined the postgraduate studies faculty at Yarmouk University in 1978, left as Senior Associate Professor in 1989 to join the NCERD at the stage of its creation.

Current interests and responsibilities include: establishment and development of education management information and decision support systems; policy analysis research, program and project evaluations; sample-based national assessments; progress monitoring and tracking systems; statistical analyses of data; and national and international consultancy.

**Dr. Taysir Al-Nahar**

He has Ph.D. in educational psychology from Pittsburg University / USA, 1986. He is an associate prof. at the Faculty of Educational Sciences at Mu'tah University. He's been deputed to NCERD since its establishment in 1990. His research interests are: educational management information systems, education policies,

évaluation of educational projects, evaluation and measurement, learning & teaching processes, motivation & learning and schooling effectiveness.

**Dr. Mousa Al-Nablan**

Ph.D. in educational research methodology, measurement and evaluation and research design from Pittsburg University, 1991. He's been deputed to the Center by Mu'tah University since 1994. His research interests are: Monte Carlo studies in educational & psychological studies, education policy studies and test construction.

**Dr. Majid Al-Qur'an**

Ph.D. in English linguistics from Hacettepe University/Turkey. He's been deputed to the Center by the Ministry of Education since 1994. His research interests are: social and human studies in relation to language nature and learning; translation and text analysis, educational supervision, teacher training; and curriculum and instruction.

## **Research Assistants**

### **Amal Al - Kharoof**

She has an M.A. in demography, University of Jordan, 1985. She joined NCERD in 1989, on secondment from the MOE.

### **Hisham Al-Da'ajeh**

He has an M.A. in educational planning, University of Jordan, 1990, and a diploma in science instruction, Yarmouk University, 1987. He joined NCERD in 1992.

### **Hanan Innabi**

She has an M.A. in Mathematics, University of Jordan, 1990. She joined NCERD in 1991.

### **Ramzi Abu Ghazaleh:**

He has an M.A. in Economics, Yarmouk University, 1991. He joined NCERD in 1991.

**Haitham Abul-Haija**

He has B.Sc. in Computer Engineering,  
Jordan University of Science and  
Technology 1994. He joined NCERD in  
1994.

