United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

International Bureau
of Education

Bureau international
d'éducation

World Data on Education
Données mondiales de l'éducation
Datos Mundiales de Educación

VII Ed. 2010/11

IBE/2011/CP/WDE/JO

Jordan

Updated version, August 2011.

Principles and general objectives of education

The education system in the Hashemite Kingdom of Jordan is based on the aspirations to freedom, justice, human and economic development to achieve a significant level of productivity and modernization. The philosophy of education is based upon the Jordanian Constitution, the Islamic Arab civilization, the principles of the Great Arab Revolt and the national experience of the country.

The desired vision of the education system emphasizes the importance of providing all people with lifelong learning experiences relevant to their current and future needs in order to respond to and stimulate sustained economic development through an educated population and a skilled workforce.

Education must be responsive to both current and future needs and link to social and economic development of the country. A quality education system: maintains high ethical values, promotes excellence, and focuses on the needs of the learner; enables universal access to educational opportunity, equality in the provision of services, and to the tools of modern information and communication technology; and provides the best in teaching and learning and promotes high levels of student success as measured by a system of performance indicators based on standards embedded in learning outcomes. (MOE, 2006).

The general objectives of education in the Kingdom emanate from the philosophy of education, and are exemplified in shaping a citizen believer in God, adherent to the homeland and nation, endowed with virtues and human perfections, and mature physically, mentally, spiritually, and socially. (MOE, 2004).

The Ministry of Education aims at: (i) building up citizens who believe in Allah, understand Islamic doctrine, and who are committed to Islamic and Arab supreme values, loyal to their country, principles and nation, fully aware of their rights, performing their duties in a way which creates a balanced personality in all aspects and leads to an aware openness on others while maintaining their identity; (ii) preparing citizens who are well-equipped with skills and knowledge required for the knowledge-based economy (knowledge, communication and intercommunication, teamwork, scientific thinking, personal, technology, future career, and scientific research skills) in order to contribute in building up their community; (iii) providing learning opportunities for all, and achieving equality and equity in educational services on the qualitative and quantitative aspects, focusing on quality development of education in line with students` learning levels. The vision is that the Hashemite Kingdom of Jordan has the quality competitive human resources systems that provide all people with lifelong learning experiences relevant to their current and future needs in order to respond to and stimulate sustained economic development through an educated population and a skilled workforce. (MOE, 2008).

Laws and other basic regulations concerning education

The **Education Act No. 3** of 1994 regulates kindergarten, basic and secondary education. It enunciates the philosophy and objectives of education, the educational policy, the functions of the Ministry of Education, and the tasks of the Boards of Education; it also contains some elements regulating curricula and textbooks, general examinations, the structure of the Ministry, as well as the functioning of private and foreign educational institutions.

The most significant regulations of the 1990s related to pre-higher education are the following.

Regulation No. 1 of 1995 on the organization of the Ministry of Education defines the administrative structure of the Ministry and its basic units and committees at all levels (central level, governorates and districts), as well as their main tasks.

Regulation No. 41 of 1997 on scientific research for the development of the educational process establishes the objectives of educational research at the Ministry, and it defines the tasks of the Research Committee for developing the educational process.

Regulation No. 59 of 1993 on educational certification and training concerns the establishment of the Educational Certification and Training Committee at the Ministry and its tasks, as well as the creation of committees specialized in training, conditions of those responsible for training courses, and the way financial rewards are paid.

Regulation No. 42 of 1992 on the equivalence of certificates concerns the establishment of the Committee on the equivalence of certificates and its main tasks and functions.

The **Higher Education Act No. 28** of 1985 regulated higher education. This Act specified the objectives of higher education and how they are achieved. It also established the Higher Education Council, defined its authority and responsibilities, and contained some regulations concerning the functioning of higher education institutions. The **Jordan Universities Act No. 29** of 1987 determined the objectives of the university as a national organization for higher education and scientific research, and contains several items regulating its financial and administrative affairs. The **Private Universities Act No. 19** of 1989 specified the authority and responsibilities of the Higher Education Council in relation with private universities. It also contained some items related to their administrative and financial affairs.

The Parliament approved the **Higher Education Law No. 6** in 1998. The law authorized the Higher Education Council to formulate the general policy related to higher education in the Kingdom, and to coordinate university education policies. The law also included criteria for supervising private university education, and provided for the closing down of the Ministry of Higher Education and the establishment of the Higher Education Council. The **Higher Education Law No. 41** of 2001 re-established the Ministry as the Ministry of Higher Education and Scientific Research. An amendment to the Jordanian Universities Act was also approved. In September

2009 the **Higher Education and Scientific Research Law** was issued addressing for the first time both private and public higher education institutions. The Law was amended in May 2010 and became effective in June 2010. According to the Law and its amendment, the Board of Higher Education is chaired by the Minister of Higher Education and Scientific Research.

In 1964, the Education Act expanded compulsory education to nine years (six years of primary and three years of preparatory education) and introduced the diversification of secondary education to provide general academic and vocational programmes. The 1994 Education Act expanded basic compulsory education to ten years and introduced comprehensive and applied secondary education streams lasting two years to be provided free of charge.

Administration and management of the education system

The **Ministry of Education** (MOE) is responsible for the achievement of the general objectives of education in the Kingdom. The Education Act of 1994 defines the tasks of the Ministry as follows: establishing public education institutions and administering them; supervising private education institutions; providing appropriate school buildings; encouraging students activities and providing them with counselling and health care; encouraging scientific research; strengthening educational links between Jordan and other countries; establishing adult education centers and reinforcing relationships with the community.

In accordance with the Regulation No.1 of 1995, the MOE is constituted of the following units:

- The central level, which is responsible for designing educational policies and plans, their implementation and follow-up. It comprises the office of the Minister, the Secretary-General, general directors, and specialized directors.
- The **General Directorates of Education** in the twelve governorates (or provinces). They supervise educational policy and plans as well as their implementation at the governorate level. A committee for co-ordination is formed in each general directorate headed by the general-director. There are six General Directorates.
- The **District Directorates of Education** in the governorates. They supervise educational policy at the directorate level in the governorate or district, and make efforts to improve education. Each District Directorate is headed by the director of education assisted by directors for technical and administrative affairs. There are twenty-six Directorates at the district level.

The school is considered the central unit of the educational process and it is managed by the **principal**, assisted by adequate staff to provide the necessary services.

The Minister of Education is assisted by two main advisory bodies, the **Council of Education** and the **Planning Committee**. The MOE also administers

vocational education, while formal apprenticeship schemes (in-service and pre-service training programmes for adult workers) are implemented by the **Vocational Training Corporation** (VTC) in cooperation with employers. In 1992, the VTC established the Industrial Counselling Division which provides administrative and technical advisory services to small and medium-sized industries to improve productivity, profitability and quality.

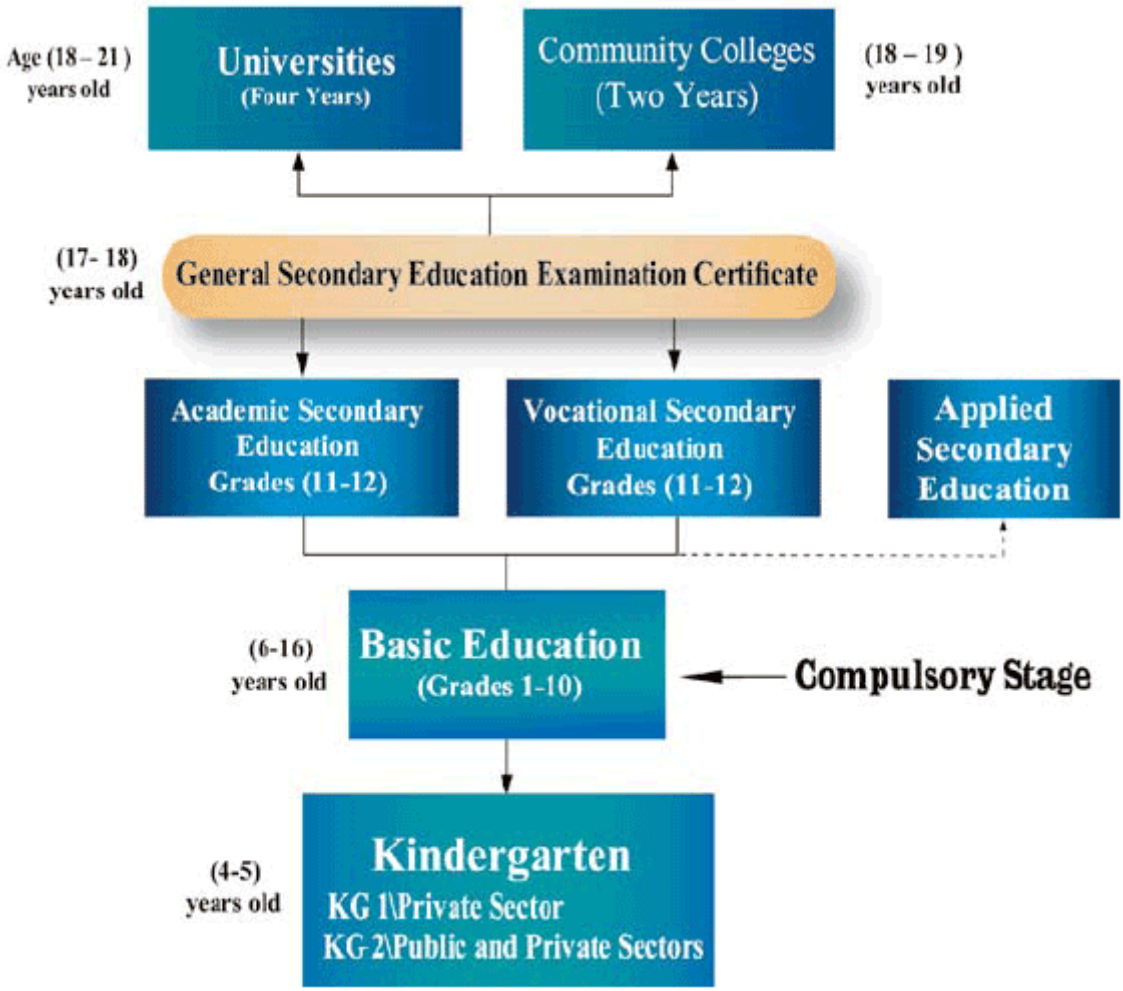
The **Ministry of Higher Education and Scientific Research** (prior to 2001 the Ministry of Higher Education) supervises all higher education issues and implements the general policy in this field. According to the 2009 Higher Education Law, the main responsibilities of the **Board of Higher Education,** chaired by the Minister of Higher Education and Scientific Research, include: drafting the policy of higher education and submitting it to the cabinet for approval; approving the establishment of higher education institutions and approving the fields of studies and programmes at all levels; supervising universities to ensure the fulfilment of their objectives and duties; distribution of government funding to public universities; approving admission criteria and the number of students to be admitted each year. The **Accreditation Council** defines the regulations for the accreditation of higher education institutions and supervises their performance and their commitment to applying the rules of accreditation.

There are institutions, other than the MOE but under its supervision which participate in the delivery of education services. Several institutions under the **Ministry of Social Development** educate students with special needs and those with learning difficulties. The Directorate of Education and Culture of the Armed Forces administers nineteen specialized schools.

The **United Nations Relief and Works Agency for Palestinian refugees in the Near East** (UNRWA) is responsible for the administration of schools for Palestinian refugees. In addition, there are non-governmental organizations (such as the Queen Alia Fund for Social and Voluntary Work and the General Union of Charity Societies) assisting educational institutions at the kindergarten level, and those for pupils with special needs. The Noor Al-Hussein Foundation (NHF) administers the Jubilee School, established in 1989, which caters to gifted students beyond the ninth grade of basic education.

Structure and organization of the education system

Jordan: structure of the education system



Source: Ministry of Education, 2008.

Pre-school education

Children at the age of 4 years (or at least 3 years and 8 months) are allowed to enter kindergartens, which are institutions offering non-compulsory preschool education. Kindergartens are mainly operated by private and non-governmental organizations.

Basic education

All children having attained the age of 6 years are required to attend the compulsory ten-year basic education cycle. Students are evaluated at the end of this cycle according to their academic achievement through grades 8 to 10 for the purpose of their classification and entry into the various types of secondary education.

Secondary education

Secondary education comprises two major streams: comprehensive secondary (academic and vocational) and applied secondary. The two-year comprehensive secondary education programme concludes with the General Secondary Education Certificate examination in the following specializations: academic (scientific, literary and *Sharia* or Islamic law) and vocational (industrial, commercial, agricultural, nursing, hotel and home economics). The certificate qualifies students to enrol in universities; students who do not sit the examination and opt for joining the labour market receive the school proficiency certificate. The two-year applied secondary education programme provides vocational education and training to train a skilled labour force both at vocational centers and through apprenticeship schemes. Secondary education is free but not compulsory.

Higher education

Higher education is provided at two levels: two-year (in some cases three-year) diploma programmes offered by community colleges and similar institutions owned either by public or private organizations; and university-level programmes. At the university level, bachelor's degrees programmes normally take four years to complete (five years in the case of dentistry, pharmacy, veterinary medicine, architecture and engineering; six years in the case of medicine and surgery). Some universities offer one-year postgraduate programmes for bachelor's degree holders. Master's degree programmes usually last one and a half to two years. A doctorate is awarded after three to four years of further study and the submission of a dissertation.

In the school year 1997/98, the number of working days at the basic and secondary education levels was 185 days. In 1998/1999, the number of working days was expected to be 191. The academic year is divided in two semesters (mid-September to the end of January, and mid-February to mid-June), each lasting 16 weeks including the exam periods. There is also an optional summer session (end of June to end of August) consisting of eight weeks.

The educational process

Prior to developing the curricula, the results of studies and researches conducted to assess curriculum and current textbooks and also the educational experts' reports have to be taken into consideration. Most studies and researches showed that the curricula are based on the narrow traditional concept and that the methods of teaching focused on the teaching processes and so, teachers had the main role in the classroom. These studies have provided recommendations to develop and focus on the learning and teaching process and on the learners to enable them to perform a more efficient role. Moreover, it was recommended that students should be motivated to take responsibility in learning and choose learning patterns and resources, and acquire the skills of making decisions, problem solving and critical thinking.

The developed curricula aim at achieving the following: (i) integrating modern approaches and methods in learning in line with the matrix of competencies of knowledge and skills according to national and international standards; (ii) focusing

on students to give them an effective, responsible and independent role in learning; (iii) establishing new roles of teachers such as facilitator, supervisor and evaluator of the student's performance and the educational programme; (iv) employing knowledge, skills and competencies that students acquire to develop their society and meet its needs; and (v) providing e-learning resources. In order to ensure that such curricula have achieved the national objectives, several indicators have been defined. These indicators could be observed through competencies achieved by the practices of learners and teachers, the general content, assessment strategies and the learning and teaching environment that facilitates the delivery of such curricula. As regards learner's competencies, the learner should be able to: (i) acquire academic knowledge in different subjects including sciences, mathematics, languages, humane studies, social studies, health sciences, management information and vocational sciences; (ii) apply the academic knowledge and use it in real life; (iii) use linguistic skills (reading, speaking and conversation) in communicating with others; (iv) produce and share knowledge with individuals and groups; (v) utilize modern technology in information management; (vi) use investigation and scientific research skills; (vii) cooperate with peers and teamwork; (vii) self-reflection and assessment. In order to achieve effective learning, teachers should: apply the curriculum freely and organize educational experiences in the school environment to achieve the desired aims; integrate and develop various teaching strategies; facilitate the acquisition and knowledge from variable resources; motivate learners to learn and create; and evaluate learners' achievement to improve their performance.

Technology plays a significant role in learning. First, it is a tool that the youth need as citizens concerned with their own development and the development of their society. Second, ICT has been identified as a method for future development. Third, teachers need to utilize ICT so that they will be able to meet their students' needs and could achieve the outcomes of the curricula. Finally, integrating technology in the learning process is considered a continuous challenge to teachers as their schools are being developed and equipped with ICT hardware and software. The Ministry of Education has adopted a life skills based education project for the period 2007-2009. The project aims to improve the quality of education through: focusing on the psychological and social aspects of students' development; strengthening students' healthy and emotional thinking; constituting good citizenship and promoting social adaptation. Thus, students would be active and productive members in their society and could deal with social and personal issues that are harmful and life threatening such as dispute, violence, drugs, stress and anxiety.

Assessment aims to improve learning by gathering information about what the student knows (knowledge and understanding), what the student can do (skills) and what the student believes (beliefs, values and attitudes) by both teacher and student. Teachers need to develop assessment strategies that fit the teaching strategies they use. When they plan for their students, they need to: think about the learning outcomes they want their students to achieve; decide which assessment strategies would be better to measure those outcomes; and identify how to choose education assessment strategies. In this way they will be certain that what have been taught is evaluated. (MOE, 2008).

Pre-primary education

Preschool education, organized for children in the age group 3 years and 8 months to 5 years and 8 months, aims at providing an adequate educational environment and care for well-balanced growth in order to help children in: acquiring sound health habits; developing positive social relationships; consolidating positive attitudes towards school; and being prepared for a smooth transition from home to school. Children's attendance at preschool classes is not compulsory. Activities and methods at this stage aim to promote the development of the personality of the child. The Ministry of Education (MOE) supervises all preschool institutions according to its policy, legislation and tasks.

Jordan has developed an ECD Strategy Document where it maps the early childhood phase from birth till 8 years of age. It divides this age span into five stages: pregnancy period; from birth to under 1 year; from 1 year to under 4 years (nursery stage); from 4 years to under 6 years (preschool stage); from 6 years to under 9 years (early elementary stage). The phase before preschool age is considered under the jurisdiction of Ministry of Social Development, which supervises all nurseries and day-care centers, provides residential care for children deprived of parental care, and implements parenting education programmes for families and centre-based childcare programmes. Furthermore, the Ministry of Health is a strong partner in empowering families in caring for their children during these early stages. A Plan of Action to implement the ECD Strategy has been developed. Furthermore, the Jordanian Second Plan of Action for Children (2004-2013) has been developed and endorsed in 2004, where ECD section builds on the ECD strategy and Plan of Action. The government pledged to allocate sufficient human and financial resource to achieve its objectives and seek extra funds wherever needed.

An Early Years Evaluation (EYE) instrument to measure children school readiness has been implemented. Moreover, the country has already developed its ECD Standards and Indicators to measure the level of knowledge and skills of young children at various stages of their development. The objective of the ECD component in the NPA is to ensure that children have the best start to life through providing a stimulating and a safe environment at home and childhood centers, and to receive quality education that is developmentally appropriate, and encompasses opportunities for self-learning and lifelong learning. Furthermore, this component aims to increase the children's knowledge of their cultural heritage, and improve their abilities to make informed decisions, and enhance their inter-personal communication skills, develop their creativity and capabilities and enable them to exercise their right to express their views and to participation.

The Ministry has prepared the general framework and outcomes related to kindergarten (KG) curricula based on Jordanian child's special developmental criteria and indicators. This framework encompasses child's developmental cores which include religious, emotional, social, lingual, physical, hygienic, mental, emotional and aesthetic aspects. The teaching materials required to achieve general and special outcomes were identified in a package which include for the teacher: general framework and outcomes related to kindergarten curriculum, kindergarten teacher's guide and the teacher's guide of various activities designed for children. For the child there are activity books in Arabic and English languages. (MOE, 2008).

The MOE had published a KG curriculum in 1980 and 1993, but kindergartens are not obliged to follow the same curriculum, though they have to obtain permission and approval from the Ministry to use the curriculum of their choice. Often, these curricula are picked off the shelf from local or regional textbook producers, even if many of these do not employ teams of early childhood development (ECD) experts, leading to programmes that are not age-appropriate. As a consequence of the widespread use of unsuitable curricula, the MOE together with the National Council for Family Affairs (NCFA) embarked on a major effort to develop a curriculum that reflected best practice in creating learning environments for young children. A National Curricular Task Force was set up in 2002-2003, headed by the President of National Centre for Human Resource Development, and composed of representatives from the MOE, the NCFA, NGOs, university-based ECD specialists, the private sector, and international consultants, and charged with the task of making progress in this area. The curricular reform team clearly set out to work within an open framework and child-centered curricular approaches. While many Jordanian KG's emphasized information, skills and behaviours, the plans for the new curriculum were that it would address the whole child, supporting children's growing awareness of self, intellectual, physical and emotional development, and the foundation for lifelong learning. (UNICEF, 2009).

The curriculum identified the key objectives for the KG sector, which it organized around seven key categories, namely religious and spiritual, psychological, nationalistic, social, physical-motor, cognitive, and performance objectives, corresponding to the cognitive, emotional, physical, social and moral domains. It also lists the learning outcomes in relation to each of these areas for the different age levels from 4 to 6. Care was also taken to have linkages with the curriculum development processes for basic education, in order to ensure continuity and coherence. The MOE field-tested the curriculum in 2003, and this led to a realization that teachers required more support than had been envisaged initially. Further assessments were made in 2004-2005, resulting in another revision of the curriculum in 2006 and final endorsement in 2007. The final version, which is now being gradually implemented across the country, structures the curriculum for daily delivery, greatly facilitating the teacher's work since it provides step-by-step instructions, and detailed activity sheets, which have proved especially popular with novice teachers. In the end, ten thematic units that include over 1,000 activities to be implemented throughout the school year were developed, together with supplementary resources that included not only a teachers' guide and textbooks, but also flashcards, posters, and other educational material. Five children's practice booklets that include the Arabic and English alphabets, Arabic and English numbers, and a variety of exercises were also produced. (*Ibid.*).

Performance of pupils at this level is evaluated through the follow-up of their participation in the diversified activities and of their growth in the cognitive, social, spiritual, artistic and emotional dimensions. Parents are continuously informed on the progress and growth of their children. The school year at the preschool level consists of 28 weeks and kindergartens run 28 hours per week; most public kindergartens start at 8:00 and finish at 12:30. (UNICEF, 2009).

The private sector (private and non-governmental organizations) is the major provider of KG education. In 2004/05 about 77% of all children attending KG were

enrolled in private KGs, 5% were enrolled in public KGs, and 18% in the NGO sector. There has been a significant increase in nurseries (children for birth to below 4 years) supervised by the Ministry of Social Development, as their total number reached 730 by the end of 2002. It is worth noting that 57% of these nurseries were governmental, 38% were private, and 4.6% were affiliates of the NGO sector. The number of KG teachers was 5,417. In terms of academic qualifications, 17.5% were bachelor's degree holders, 80% had a diploma degree, and 3% had finished high school certificate. Teachers employed by MOE were bachelor's degree and diploma degrees holders and many of the KG supervisors had master's degrees. KG teachers are normally recruited after graduating from a two-year community college, having obtained an intermediate-level diploma. The educational level of caregivers working in nurseries and day-care centers varies: 44.7% of caregivers had a university or college degrees, 32.3% had only a high school certificate and 23% had lower qualifications. In 2004/05 the KG2 system served almost 50% of the age cohort. KG coverage of children aged 4-6 years was estimated at 46% in urban areas and 24% in rural areas. On average the children-teacher ratio in KG in 2002/03 was 18:1, with that for rural areas being 22:1. The maximum enrolment permitted is of 30 children per classroom. (*Ibid.*).

The Ministry of Education reports that in 2007/08 there were 1,262 kindergartens, of which two under MOE, 103 under other governmental authorities and 1,157 in the private sector. The total enrolment was 90,613 children (48,266 boys and 42,347 girls). (MOE, 2008). According to the World Bank, the gross enrolment ratio for the KG2 age group was over 51% in 2008.

Primary education (basic education)

Basic education comprises ten years of compulsory schooling starting at the age of 5 years and 8 months. Pupils are offered a basic and well-balanced education in the social, emotional, intellectual, physical and spiritual aspects of their personality growth, in order to create the basis for successful learning at higher forms of education and for lifelong learning. Basic education aims at preparing the learners to:

- be consciously acquainted with the history, principles, rules and values of Islam, incorporating them into their character and behaviour;
- master the basic skills of Arabic language to be able to use it easily;
- know the basic facts and events related to the history of the Islamic and Arab nation and to the Jordanian people in its Arab and Islamic profundity, in particular, and its humanity in general;
- follow social behaviour rules and take into account commendable social traditions, habits and values;
- love, be proud of, and shoulder the responsibilities towards their homeland;
- love their family and society and shoulder the responsibilities towards them;
- master the basic skills of at least one foreign language;
- deal with numerical systems, basic mathematical processes and geometrical figures, and use them in everyday life;

- absorb basic scientific facts and generalizations and their experimental bases, and use them to explain natural phenomena;
- think scientifically, using the process of observation, data collection, organization, analysis, deduction and making decisions and judgments based on them;
- comprehend the scientific basis of the forms of technology and use them properly;
- be keen on the safety, cleanliness, beauty and wealth of their environment;
- be aware of the importance of their physical fitness and health, and practise suitable sport and health activities;
- have aesthetic taste in the various arts, and express their own artistic interests;
- be able to perform handicraft skills matching their abilities and interests, make an effort to develop them, and have respect for manual work owing to its basic function in social life;
- assimilate diligence, work, persistence and self-dependence values in achievement, realization of self-capability, earning a living and self-sufficiency;
- express their talents, special abilities and creative aspects;
- accept themselves, respect others, consider their feelings and appreciate their merits and achievements;
- appreciate the value of time and made good use of their leisure time;
- strive for self-instruction and the development of their competencies.

The weekly lesson timetable for basic education in the year 2000 is shown in the table below:

Basic education: weekly lesson timetable

Subject	Number of weekly periods in each grade									
	I	II	III	IV	V	VI	VII	VIII	IX	X
Islamic education and culture	3	3	3	3	3	3	3	3	3	3
Arabic language	9	9	9	9	7	7	7	7	7	6
English language	–	–	–	–	5	6	6	5	5	5
Mathematics	5	5	5	5	5	5	5	4	4	4
Music and anthems	1	1	1	1	1	1	1	1	1	1
Art education	1	1	1	1	1	1	1	1	1	1
Physical education	2	2	2	2	2	2	2	1	1	1
Vocational education	1	1	1	1	2	2	2	4	4	4
Computer studies	–	–	–	–	–	–	–	1	1	2
Civics:										
Social and national education	2	2	2	2	3	–	–	–	–	–
History	–	–	–	–	–	1	1	1	1	1
Geography	–	–	–	–	–	1	1	1	1	1
National education	–	–	–	–	–	1	1	1	1	1
Science:										
General science	3	3	4	4	4	4	4	5	–	–
Physics	–	–	–	–	–	–	–	–	2	2
Biology	–	–	–	–	–	–	–	–	2	2
Chemistry	–	–	–	–	–	–	–	–	2	2
(French language, optional)	–	–	–	–	–	–	–	(3)	(3)	(3)
Total weekly periods	**27**	**27**	**28**	**28**	**33**	**34**	**34**	**35**	**36**	**36**

Note: Each teaching period lasts 45 minutes.

Evaluation of pupils is one of the responsibilities of the teachers. The school gives students certificates at the end of each academic year, from grade 1 to first year of secondary education. On the certificates, the results of the first and second terms with the final average are all indicated. In addition, classification of students and their enrolment in the various types of secondary education is carried out according to their marks in grades 8-10. The Diagnostic Evaluation Project for the basic cycle—implemented in cooperation with the Scottish General Examination Board—aims at improving the quality of education in the classroom through the application of diagnostic evaluation methods by the teachers, who are required to prepare educational activities and to offer remedial activities to students with learning difficulties or provide higher cognitive activities to those showing very high achievement.

The programme for students with learning difficulties aims to provide educational services and rehabilitation for students with learning difficulties through specialized classrooms annexed to a regular school in areas where they need help such as language, reading, writing and arithmetic. These classrooms are mainly annexed to regular basic schools and offer their specialized services and programmes for targeted students from grade 2 to grade 6, who have troubles in learning Arabic language skills (reading, writing, spelling and composition) and math skills due to physical, psycho-social or for other reasons. Teachers who have specialized qualifications in

diagnosing learning difficulties and dealing with this group, such as high diploma in learning difficulties, bachelor and diploma degrees in special education work in this program. Until the beginning of the school year 2007/08, the number of resource rooms for learning difficulties had reached a total of 531 distributed over the various directorates of education and served more than 12,460 students. (MOE, 2008).

The Ministry of Education reports that in 2007/08 there were 3,053 basic education schools, of which 2,137 under MOE, 16 under other governmental authorities (such as the Ministry of Defense), 176 run by UNRWA and 724 in the private sector. A total of 1,904 schools were co-educational, 782 were schools for boys and 367 were girls' schools. The total enrolment was 1,297,905 students (664,174 boys and 633,731 girls), of whom 914,937 students in schools administered by MOE, 246,545 in the private sector, 122,068 under UNRWA, and 14,355 students in schools run by other governmental authorities. (MOE, 2008). In 2008/09, the net enrolment ratio at the basic education level (age group 6-15 years) was estimated at 97.6% (97.5% for boys and 97.7% for girls). The survival rate to grade 5 was 99% (98.8% for boys and 99.2% for girls) in 2007/08. Basic education drop-out rates are minimal (an average of about 0.4%). (Ministry of Planning, 2010). According to the World Bank, the transition rate to secondary education was 79% in 2005/06.

Secondary education

Secondary education consists of two years of study for students who completed the basic education cycle. As the students were provided with a broad-based, general and undifferentiated education during the ten years of basic education, secondary education is designed to prepare them for higher education or for entry into the labour market.

Students are admitted to secondary education according to their abilities and interests. They are provided with specialized cultural, scientific and vocational experiences which meet the existing and anticipated needs of society. Accordingly, there are two major types of secondary education: (a) comprehensive secondary education which provides a general common cultural base for all students, in addition to specialized academic or vocational education; (b) applied secondary education which provides vocational training and apprenticeship.

Secondary education, in this context, is intended to enhance the cardinal points of basic education, and aims at preparing learners to be able to:

- use the Arabic language to increase their ability to communicate, develop their scientific and literary culture, consider the fundamentals of correct language structure, and relish its arts;
- adapt to environmental changes in their country in its natural, demographic, social and cultural dimensions, to exploit and maintain them well, and improve their potentials;
- derive their culture from their nation's past and present heritage, and be aware of the necessity of conscious openness to world civilization and contributions to it;
- interact with the cultural environment of their society and try to develop it;
- be aware of the importance of family, its coherence and role in social life;

- consolidate their self-confidence, appreciation of other human beings, and respect for the dignity and freedom of others;
- exemplify the principles, rules and values of Islamic ideology, adopt them in their behaviour, and understand the values and convictions in other heavenly religions;
- seek the progress, prestige and pride of their country, and be keen to participate in solving its problems and achieving security and stability;
- know the conditions and issues of their nation, be proud of belonging to it and seek its unity and progress;
- work in a team, know the rules and forms of democracy and practise them in dealing with others, and believe in principles of social justice;
- be aware of international issues and problems and of the importance of international understanding and peace built on justice and rightness;
- perform their duties and adhere to their rights;
- master one foreign language at least;
- absorb mathematical and logical concepts and relationships and use them in solving problems;
- look for data sources carefully and have command of collecting, storing, processing and means of benefiting from data;
- absorb new scientific facts and their applications, be able to verify them experimentally, and know their role in human progress;
- protect the environment, keep it clean, and develop its potential and wealth;
- absorb health information and rules pertaining to balanced physical and psychological growth, and practise them;
- relish artistic work and express their artistic interests in works according to their capabilities;
- seek professional qualification, economic independence and self-sufficiency;
- use their free time for practising useful hobbies and recreation activities and for developing them;
- reflect Arab, Islamic and humanistic values and perfection in their behaviour;
- use common sense in dialogue, tolerance in dealing with others, and courtesy in listening;
- develop themselves through self-learning and lifelong education.

The study plans for comprehensive academic and vocational secondary education streams in the year 2000 are presented below (each teaching period lasts forty-five minutes):

Comprehensive academic secondary education: weekly lesson timetable

Subject	Number of periods			
	I Form		II Form	
	Scientific	Literary	Scientific	Literary
Common general education:				
Islamic education and culture	3	3	3	3
Arabic	3	3	3	3
English	3	3	3	3
Scientific education	3	–	–	3
Civics	–	3	3	–
Basic requirements:				
a. Compulsory				
Mathematics	4			
Physics	3			
Chemistry	3			
Arabic	–	4		
English	–	3		
History	–	3		
b. Electives				
One subject from: biology, geology and environment	3	–		
One subject from literary or vocational streams	3	–		
One subject from Islamic education & culture, geography and mathematics	–	3		
Two subjects from chemistry, physics, biology, geology and environment	–	–	10	
Two elective subjects	–	–	–	10
Specialization requirements:				
Mathematics	–	–	5	–
Arabic	–	–	–	5
Optional subjects:				
One subject from vocational education and home economics	2	–	2	–
One subject from computer studies, music, physical education, foreign languages other than English	–	2	–	2

Comprehensive vocational secondary education streams: weekly lesson timetable

Vocational Education Stream	Industrial	Number of periods		Agricultural	Number of periods		Commercial	Number of Periods		Hotel	Number of Periods		Nursing	Number of Periods		Home Economics	Number of Periods	
Subjects & periods	Subject	1st	2nd	Subject	1st	2nd	Subject	1st	2nd	Subject	1st	2nd	Subject	1st	2nd	Subject	1st	2nd
Common General Education	Islamic Education & culture	3	3	Islamic Education & culture	3	3	Islamic Education & culture	3	3	Islamic Education & culture	3	3	Islamic Education & culture	3	3	Islamic Education & culture	3	3
	Arabic (Regular Level)	3	3	Arabic (Regular Level)	3	3	Arabic (Regular Level)	3	3	Arabic (Regular Level)	3	3	Arabic (Regular Level)	3	3	Arabic (Regular Level)	3	3
	English (Regular Level)	3	3	English (Regular Level)	3	3	English (Regular Level)	3	3	English (Regular Level)	3	3	English (Regular Level)	3	3	English (Regular Level)	3	3
	Scientific Education	3	-	Scientific Education	3	-	Scientific Education	-	3	Scientific Education	3	-	Scientific Education	3	-	Scientific Education	3	-
	Civics	-	3	Civics	-	3	Civics	3	-	Civics	-	3	Civics	-	3	Civics	-	3
Total		12	12		12	12		12	12		12	12		12	12		12	12
Basic	Mathematics	2	2	Chemistry	2	2	Mathematics-	2	2	Mathematics	2	2	Chemistry	2	2	Chemistry	2	2
Sciences	Physics	2	2	Biology	2	2	Computer	2	2	Biology	2	2	Physics	2	-	Biology	2	2
	Chemistry	2	-	Mathematics	2	-				Chemistry	2	-	Biology	2	2			
Total		6	4		6	4		4	4		6	4		6	4		4	4
Vocational Sciences	Special Industrial Sciences (a)	3	4	General Agricultural Sciences (a)	2	2	Accounting & Book keeping	4	(4) or	Functional	2	-	Anatomy & Functions of Organs.	3	-	Special	4	4
	Industrial Drawing (b)	3	4	Special Agricultural Sciences(b)	4	4	Office Work & Communications	4	(4)	Tourism & Historical Sites	1	-	Nutrition	-	2	Administration & Vocational Safety	2	-
										Nutrition & Health	2	-	Functional English	1	-			
				Farming Administration	-	2	Principles of Economics & Legislation	2	2	Food Production & Catering	3	4	Nursing (Care (a)	4	4	Social Science	-	2
	Industrial Administration & Safety	2	-	Soil & Irrigation	2	-		Serv ices	2	Reception & Hotel Management	2	2	Science of Medicines	-	2	Vocational Drawing & Arts	2	2
							Functional English	2	0	Hotel Accounts	-	2						
Total		8	8		8	8		12	8		10	8		8	8		8	8
No. of periods for theoretical subjects		26	24		26	24		28	24		28	24		26	24		24	24
Practical Training		16	16		14	16		8	8		14	14		14	14		14	14
Free Subjects (Optional)		2	2		2	2		2	2		2	2		2	2		2	2
Additional Basic Sciences	Maths	2	2	Chemistry	2	2	Arabic	2	2	Mathematics	2	2	Chemistry	2	2	Chemistry	2	2
	Physics	2	2	Biology	2	2	English	2	2	Biology	2	2	Biology	2	2	Biology	2	2

At the end of the secondary cycle, students passing the national examination receive the secondary school certificate. Starting from the academic year 1996/97, one exam for the secondary certificate at the end of the second term of the academic year has been introduced. In addition, the project related to the development of the General Secondary Education Certificate examinations—implemented in cooperation with the Scottish General Examination Board—aims at including measurement of several skills in all subjects of study such as: acquiring knowledge, problem-solving and fact-finding. Concerning foreign languages, the Ministry of Education plans to include skills related to writing, reading, listening and conversation. Supervisors and teachers will be trained for the new kind of examinations, and the Ministry will issue specifications for students concerning those examinations.

The Ministry of Education reports that in 2007/08 there were 1,230 academic secondary schools (of which 1,038 under MOE and 167 privately owned), 16 vocational secondary schools (all run by MOE), 76 academic and vocational secondary schools (of which 73 administered by MOE), and two applied secondary schools (one under UNRWA and the other run by MOE). The total enrolment in academic secondary education was 153,326 students (70,618 boys and 82,708 girls); 20,816 students (12,123 boys and 8,693 girls) were enrolled in vocational secondary education, and 724 boys (of whom 569 under UNRWA) in applied secondary education. (MOE, 2008). According to the World Bank the overall completion rate of secondary education is about 70%, with almost 30% of students dropping out after grade 10.

Assessing learning achievement nationwide

Since measuring the effect of educational developments depends on the improvement of students' achievement, the National Centre for Human Resource Development implemented a project for evaluating the effect of educational developments through measuring quality improvement in the teaching process which is reflected in the level of students' achievement. This project, organized into two phases, focused on the selection of a random stratified sample in 245 schools consisting of two class units (grades 4 and 8). Tests for assessing students' achievement in Arabic language, mathematics and science were applied in two phases: before the educational development (1993) and after it (1995).

In the second phase, the test was applied to students who completed three years of study in accordance with the educational development plan which included new curricula and school textbooks, and teachers trained in the developed teaching methods—enhancing critical thinking, problem-solving skills, self-learning and higher intellectual skills. In addition, the project included the administration of questionnaires to students, parents, teachers and principals for the purpose of collecting data on their interests, attitudes, beliefs and perceptions concerning schools, classes, and administrative and teaching practices.

This comprehensive study aimed at describing students' achievement in grades 4 and 8 of basic education according to sex, location and the supervising authority, for the purpose of providing standard averages for students' achievement in general, and finding differences between the various categories. In addition, the study aimed at

identifying points of strength and weakness in students' achievement in each grade and field according to the study unit and cognitive skills.

The most significant results related to the measurement of students' achievement in mathematics were as follows:

- *Results related to grade 4 students*: There was a substantial improvement in students' achievement at the national level in the second phase (after development), but there were differences between the governorates. Students' achievement was classified according to the highest degree of improvement as follows: private schools, schools administered by the Ministry and UNRWA schools. There was similarity in the performance of males and females, as well as of students from urban areas and those from villages.
- *Results related to grade 8 students*: The effect of educational development was positive on the achievement of grade 8 students in the Kingdom, but there were differences between the governorates. Students' achievement was classified according to the highest degree of improvement as follows: the private sector, UNRWA and the Ministry. The degree of improvement was higher for females than males, and for urban students rather than rural ones.

The most significant results related to the measurement of students' achievement in sciences were as follows:

- the means of performance in grades 4 and 8 in the two phases (before and after the educational development) did not indicate the success or mastery levels;
- the performance of girls was better than that of boys;
- the performance of urban students was better than that of rural ones;
- the performance level of students attending private schools was the best in general.

In the 2003 Trends in International Mathematics and Science Study (TIMSS) round, Jordan's eighth grade students ranked first among all Arab countries in science and second in mathematics. (MOE, 2006). Jordan has participated three times in TIMSS and once in the Programme for International Student Assessment (PISA) exercise. The World Bank observes that in both cases Jordan performed well in comparison with other Arab states in the region, but well below many countries at comparable income and education expenditure levels, and at or below the international averages. MOE introduced a national assessment programme using a PISA like approach but focused specifically on the knowledge economy aspects of the national curriculum. It also conducted a series of more traditional national assessments of learning achievement in key subjects.

Teaching staff

One of the Ministry of Education's main fields of interest has always been the upgrading of teachers' qualifications, and the improvement of the teaching and

learning process. Conforming to this principle, the Education Act No. 3 of 1994 stipulates that every teacher in any stage, from kindergarten to secondary cycle, must have a university degree (at least a bachelor's degree), whereas the supervisor must be holder of a postgraduate degree. Basic education teachers must hold a bachelor's degree and secondary school teachers must hold a bachelor's degree and a one-year postgraduate diploma.

Plans have been implemented for achieving these requirements. There are two types of certification (e.g. pre-service and in-service) according to which the following three categories have been qualified through the school year 1997/98:

- basic education teachers who hold community college diplomas to the first university degree: 46% of this group were certified;
- secondary education teachers with university degrees to the one-year postgraduate Higher Diploma in Education: 76% of this group were certified;
- educational leaders and supervisors to the M.A. degree: 62% of this group were certified.

In addition to the above-mentioned programmes, there are comprehensive in-service training courses on modern teaching methods, new curricula and textbooks. As of the school year 1997/98, the following staff had been trained: about 95% of teachers; 92% of school principals; 85% of support technical cadres; and 82% of educational supervisors. The General Directorate of Training in the MOE is responsible for planning these programmes in cooperation with educational experts as well as with international and regional organizations for the purpose of training, certification and supervision of teaching staff and for upgrading the competence of administrative staff at the central and field (directorate) levels.

Pre-service training programmes focus on effective teaching methods, skills related to work, cooperative teaching, skills for applying knowledge to practical life, and critical thinking.

Teachers are selected for the job through competitive measures and on the basis of existing needs, specialization, year of graduation, experience and educational qualification. Although there are general criteria for employment, a quota is given to some categories, such as orphans of fathers who served in the Jordanian army, poor families and the handicapped who hold an academic qualification, provided that their percentage does not exceed 5%. Generally speaking, promotion takes place after passing five years in a grade, class or category. It is possible to be promoted earlier if the teacher gets a higher academic degree, or if his/her performance is distinctive.

Teachers' workload (average number of weekly periods dedicated to classroom teaching in 2001) depends upon the educational cycle as follows: class teacher (grades 1-3), 27 periods per week; basic education teacher (grades 4-10), 24-26 weekly periods; secondary education teacher (academic and vocational), 22-24 weekly periods; practical training teacher at vocational schools, 32-36 periods per week; school principal-assistant and principal teacher, 12 weekly periods.

Salaries and allowances are classified according to academic qualifications, category, grade and nature of work. The Civil Service Regulation applies to all employees, including teachers.

References

Ministry of Education. Directorate of Educational Research and Development. *The development of education. National report of the Hashemite Kingdom of Jordan*. Presented at the 48th session, of the International Conference on Education, Geneva, 2008.

Ministry of Education. Educational Development Division. *A report on the education system of Jordan*. Document prepared by the International Bureau of Education and reviewed, modified and updated by a technical team of the Educational Development Division. August 1998.

Ministry of Education. General Directorate of Planning, Research and Development. *The development of education in the Hashemite Kingdom of Jordan 1993-1994. National report*. Presented at the 44th session, of the International Conference on Education, Geneva, 1994.

Ministry of Education. General Directorate of Educational Research and Studies. *The development of education in the Hashemite Kingdom of Jordan 1995-1996. National report*. Presented at the 45th session, of the International Conference on Education, Geneva, 1996.

Ministry of Education. General Directorate for Research and Development. *The development of education in the Hashemite Kingdom of Jordan 1998-2000.* Presented at the 46th session, of the International Conference on Education, Geneva, 2001.

Ministry of Education. Directorate of Educational Research and Development. *The development of education. National report of the Hashemite Kingdom of Jordan*. Presented at the 47th session, of the International Conference on Education, Geneva, 2004.

Ministry of Education. Directorate of Educational Research and Development. *National Education Strategy*. Amman, 2006.

Ministry of Planning and International Cooperation. United Nations in Jordan. *Keeping the promise and achieving aspirations. Second National Millennium Development Goals Report. Jordan 2010.* Amman, 2010.

UNESCO Amman Office and UNESCO Regional Bureau for Education in the Arab States. *UNESCO National Education Support Strategy (UNESS): The Hashemite Kingdom of Jordan*. Beirut, July 2008.

UNICEF. *Jordan's Early Childhood Development Initiative: Making Jordan fit for children*. UNICEF Regional Office for Middle East and North Africa, 2009.

World Economic Forum and Jordan Ministry of ICT. *Jordan Education Initiative*. October 2004.

Web resources

Higher Education Accreditation Commission: http://www.heac.org.jo/ [In Arabic; some information in English. Last checked: August 2011.]

Ministry of Education: http://www.moe.gov.jo/ [In Arabic; some information in English. Last checked: August 2011.]

Ministry of Higher Education and Scientific Research: http://www.mohe.gov.jo/ [In Arabic and English. Last checked: October 2007.]

National Center for Human Resources Development: http://www.nchrd.gov.jo/ [In Arabic and English. Last checked: October 2007.]

For updated links, consult the Web page of the International Bureau of Education of UNESCO: http://www.ibe.unesco.org/links.htm