

EDUCATION AND CHANGE IN THE ARAB COUNTRIES

A PLATFORM FOR THE 21ST CENTURY

Kufa Review proudly presents this article by Dr. Mohammad Jawad Ridha, one of the best Arab scholars in the field of education studies. This article was not published during his life. It was submitted to us, along with other manuscripts, by his family. We publish it in honor of his memory and in recognition of his remarkable accomplishments as an educator, an expert, and an administrator.

By the turn of the century, the Arab World had met an estimated population of two hundred and eighty million people torn between two conflicting self-perceptions. On the one hand, there is the sense of great historical accomplishments, and on the other, a crippling acrimonious awareness of present under-achievement. This dichotomy of past glories and present impoverishment has always been lurking behind the utilization of the educational establishment to revive the past instead of reinventing the present, to sustain old modes of thinking instead of acquiring new ones, a tragic situation which ultimately led to the semi-isolationism through which Arab masses tend to view the world around them; a world that is decisively globalized and futuristic. In the crossfire of this contradictory self-image, it was a peculiar fate for Arab Education to become instrumental in its sustenance. If this trend is to persist in the coming century, it

**Mohammad Jawad
Ridha***

will definitely be of disastrous consequences.

How to accommodate this noble and proud people into the ever-changing world of today and tomorrow? How to unleash its arrested creative potentialities? These are questions of utmost intricacy to which Arab Education has to respond. The response 'long overdue' is conditional on several moral and political requirements, namely: a rational and unflinching desire for change and the courage, honesty, and resolution necessary to its idealization. The road to this historical destination has been well pointed during the past decades, but it was seldom travelled. Now after the turn of the century, the call for redirecting Arab education towards a new multitude of pragmatic and futuristic goals can no longer be ignored except at a suicidal cost.

The Response: Beyond Rhetoric and Illusions

Hundred years after the commencement of modernizing education in the Arab countries, the Arab educational arena is grim with manifestations of dysfunctionality and under-achievement. Out of every thousand children, 359 go without any schooling. Thirty-five percent (35%) of the adult male population and sixty-one percent (61%) of the adult female

population are illiterate. Among the literate adult population (25+ years), the average of completed school attendance is 4.1 years for males and 1.7 years for females. In 1994, only 51% of the total adult population (male and female) could read and write, and 51% of the younger generation (6-23 years old) were able to pass through the entire educational system (elementary through university). In 1990/91, only 11% of the 18-23 age group of the Arab population were enrolled at a B.Sc./BA and Diploma levels. This ratio varied between 25-27% for Jordan and Lebanon to less than 5% for Sudan and Somalia. This enrollment ration is lower the industrial countries but similar to some other countries in the region such as Iran and Turkey. It is 76% in the USA and 28-45% in industrial Europe and Japan. The average

Hundred years after the commencement of modernizing education in the Arab countries, the Arab educational arena is grim with manifestations of dysfunctionality and under-achievement. Out of every thousand children, 359 go without any schooling. Thirty-five percent (35%) of the adult male population and sixty-one percent (61%) of the adult female population are illiterate

number of B.Sc./BA graduates per 100,000 population for Arab countries came only to 121 in 1990/91, a figure equivalent to one third of the level of many industrial countries. On the graduate level, the proportion of Arab university students enrolled in M.S/MA and Ph.D. studies is about 6% compared to 10-16% in industrial countries. In 1990/91, 35% of university students majored in science and technology. The rest were in humanities and social sciences. These ratios varied greatly by Arab country and by the field within science and technology. In Algeria, among the 67% who majored in science and technology, more than half (35%) majored in engineering. This is compared to 20% in Yemen. Arab female participation in science and technology is mainly medical (43%) and basic sciences (38%). However, only 75% of the females attend elementary schools, 48% attend secondary schools and 10% of them are expected to be admitted to higher education.⁽¹⁾

These synoptic, but revealing figures, may well explain the messages of the number of the highly trained scientific manpower in the Arab countries. These figures hint very clearly at some of the reasons behind the low productivity in Arab societies. Of their total consumption of food staples, Arab importation rose from 29.9% in 1962-1972 to 48% in

In the year 1995, Arab countries imported 36,572,000 metric tons of grains. This amount represented a decrease in the regional grain production from 78% in 1970-1972 to 57% in 1990, and 27.7% in 1996. It is quite alarming to register such a regressive phenomenon while the bulk of the labor force is agricultural

1988-1991. In the year 1995, Arab countries imported 36,572,000 metric tons of grains. This amount represented a decrease in the regional grain production from 78% in 1970-1972 to 57% in 1990, and 27.7% in 1996.⁽²⁾ It is quite alarming to register such a regressive phenomenon while the bulk of the labor force is agricultural. In 1995, 35.6% of the labor force was in agriculture, with only 22% in industry and 42.4% in the general services.

What was the role of Arab education in this disheartening failure? There is no conclusive answer to this question. Arab education has never been assessed or evaluated. Educational indicators are still a novelty in the Arab world and, only a few Arab countries are subjecting their educational systems to such evaluative processes. Thus, there is no reliable ground to judge the merits and competency of these systems. Only through historical and ideological analysis can one

seek some relevant explanation of this failure. The following explanations seem to be in order.

One striking characteristic of contemporary Arab education was and still is its over politicization. During the past eight decades, Arab educators committed their education systems to four political goals: (1) combating backwardness, (2) striving for Arab unity, (3) waging war against Imperialism, and (4) meeting the challenges of Zionism. Even as late as 1979, the authors of "The Strategy for Development of Arab Education", although covering a wide range of educational aims and objectives, were convinced that "the great Arab revolution which destroyed, throughout the Arab world, the remnants of Imperialism and liberated great masses from the yoke of subjugation and exploitation, this revolution which is now gathering momentum to destroy once and for all Zionism and Imperialism, this

revolution, in order to realize its optimum goal, demands a unified educational revolution which must be planned and carried out with great precision and dedication.⁽³⁾

Under the heavy impact of this overemphasis of the political ends on education, it was only natural that the educational establishment should obliterate the most essential aims it was supposed to serve: a better understanding of the learner, a greater appreciation of his human developmental needs, and to work more assiduously for the total development of his potentialities. The over politicization of Arab education reached its peak with the advent of the revolutionary tide which swept the Arab world since the fifties. Ever since, the manipulation of the educational establishment for political ends has become a common practice, used and pursued by all political factions from the extreme left to the extreme right. In the process of deprivation, the individual learner was denied his basic developmental needs in order to be made an instrument for the preservation of the political system under which he was destined to live. Indoctrination replaced free and critical thinking, and authoritarian values permeated every educational tool and practice: the curriculum, the textbooks, and the methodology of teaching. Modernism was

Indoctrination replaced free and critical thinking, and authoritarian values permeated every educational tool and practice: the curriculum, the textbooks, and the methodology of teaching. Modernism was virtually reversed and emptied of this humane and civic content

Up to this day, this authoritarian tendency permeates the whole system of life in the Arab world beginning in the family, going the school system and into the political system. No wonder then that intolerance, especially in politics and intellectual life, should be a major characteristic of Arab life today

virtually reversed and emptied of this humane and civic content.

While the process of over-politicizing Arab education was being pursued with zeal and determination, other conflicting forces were contributing their share to the ongoing misconception of the true function of education in modern societies. In this conception, eight contrastive tensions could be cited:

1. Autocracy vs. Democratic institutionalism
2. Tradition vs. Innovation
3. Authority vs. Liberty
4. Tribalism vs. Social contractualism
5. Nepotism vs. Legal guarantees of human rights
6. Male supremacy vs. Female liberation
7. Agriculture vs. Industrialization
8. Wealth vs. Poverty

Autocracy vs. Democratic Institutionalism

Autocracy in contemporary Arab life is the bitter heritage of the past, be it from Arabic or non-Arabic origins. With the national awakening early in this century, and with the new aspirations for a new way of life, democratic institutionalism was the natural reaction to autocracy. In the three decades of feeble democracy which the Arabs practiced between the two great wars, autocracy was relatively balanced by parliamentary practices. The revolutionary era from 1952 onwards revived autocracy once again, in the name of the people this time. It came under the banner of "Popular Democracy". Education had no immunity from this socially disabling phenomenon. Indeed, it was one of its easiest victims.

Tradition vs. Innovation:

Tradition connotes more than the sheer adherence to the past, although it glorifies the past. Tradition is one of the most alluring powers that controlled man's mind through the deceptive double vision of security and righteousness honored by time. Innovation, on the other hand, is the tenant of the present and

the future which takes man to new horizons with all anxieties and the uncertainties that come with venturing into the unknown or the unrepresented.

In today's world, innovation and innovative thinking are among the strongest means of survival. Rejecting innovation has only one consequence, enfeebling the human creative powers of the Arabs. Arab education was expected to deliver this conservative revision to traditional norms of thinking and socializing, and so it was directed.

Authority vs. Liberty:

There is no inherent conflict between authority, be it political or ethical, and liberty. Indeed, each one of these two component elements of social order is dependent on the other. Yet, there is an imminent danger of confusing authority one becomes at odds with liberty.

Due to certain historical developments, authoritarianism took a prominent position in the Arab cultural heritage. A dominant dictum through the past 14 centuries says:

“He who has no master to follow, then Satan is his master.”

Thus the right to understand things and

to comprehend their interactive relationships rests not in the individual, but somewhere or in someone else from whom a license to think or act should be obtained. Up to this day, this authoritarian tendency permeates the whole system of life in the Arab world beginning in the family, going the school system and into the political system. No wonder then that intolerance, especially in politics and intellectual life, should be a major characteristic of Arab life today. Education was and still is used very effectively to this end.

Tribalism vs. Social Contractualism:

The great prophet Mohammad was sent to a community of tribes. One of the basic social institutions Islam aimed to abolish was tribalism and its ethics of raid and revenge. To replace tribalism by a more rational social system, the Qur'an put forward a new political theory, the AHD/Mandate, which limited the

In many Arab communities, women are awaking to their unacceptable conditions and they are aggressively agitating for their rights. But they have a long way to go and many, fierce battles to fight before they can make the male yoke unbuckle

political power of government by ordinance of God. Muslim jurists like al-Mawardi found in this divine admonishment the genesis of an Islamic political theory and construed from it a form of semi-constitutional government of a limited power. Arab education could have played an essential role in the promotion of this form of limited constitutionalism. Unfortunately, it was forced to serve a contrary form of political education.

Nepotism vs. Legal Guarantees of Human Rights:

Nepotism is an offspring of tribalism. It is a social arrangement under which one's rights are tied to his social connections. The modern state, especially so in the Arab world, cannot conceive of nepotism without abandoning its responsibility to guaranteed legal rights of the individual regardless of his social belonging. Arab education could have played an enlightening role in educating the new generations in the value and moral worth of meritorious accomplishments. That role was never played.

Male Supremacy vs. Female Liberation:

Arab women have been through the past generations relegated to a position of subordination to their male counterparts and

The Arab world is oozing with wealth, yet poverty is an existing chronic problem there

of dependency on them. Ibn Rushd in the 11th century called attention to the damaging effects of this situation on the welfare of the whole society. Ibn Rushd even established a causal relationship between the inferior position of women and the military and political defeats the Arabs were suffering in Spain in his time. Now nine centuries after Ibn Rushd, Arab women are still languishing in their position of social subordination and dependency. In most Arab countries, for example, they have no recognized political rights. Where there is election and voting, an illiterate man may vote and run for office, but a woman with a Ph.D. cannot vote, let alone run for office.

However, today the picture is not as gloomy as it used to be. In many Arab communities, women are awaking to their unacceptable conditions and they are aggressively agitating for their rights. But they have a long way to go and many, fierce battles to fight before they can make the male yoke unbuckle. Arab

it is more than unfortunate for Arab education to refrain from educating its new generations in the dynamics of economic life, social justice and wealth distribution

education has a social obligation as well as a moral duty in resolving this social predicament by emphasizing the biological and moral equality of both sexes.

Agriculture vs. Industrialization:

Rather than machines and tools, industrialization is a holistic concept interfering with the natural environment and creating for man what nature did not make for him to alleviate the hardships of his living on the planet. In other words, industrialization is the scientific of remaking man's life with an ethical outlook of its own. Therefore, its social and moral impacts are quite annoying and disturbing to communities that were agricultural for a long time like the Arab society. Industrialization is sweeping now throughout the Arab world. In a very conscious way, it is becoming a national target in all Arab countries, but only a few people are cognizant of its social consequences. Industrialization creates a labor force with new rights and privileges like

high wages and sharing in decision making, thus denoting the birth of new social force of non-autocratic character. Industrialization calls for the employment of women in factories and markets with equal rights in wages and benefits, thus creating the objective conditions for challenging and refuting male supremacy.

For the majority of the enthusiastic supporters of industrialization, these and other social consequences are neither foreseen nor provided for as yet. If so remains the case, then industrialization might prove to be an added source of social unrest. Education has a vital role in enlightening the new generations in particular and society in general in the enormous impact of industrialization in upsetting the old system of social order ethics and social order and replacing it with a new one compatible with the demands of the new age.

Wealth vs. Poverty:

The Arab world is oozing with wealth, yet poverty is an existing chronic problem there. In 1980, per capita income fluctuated from \$20,943 in Kuwait to \$15,750 in Saudi Arabia to \$11,704 in Libya to \$417 in Yemen. This disparity in income distribution manifests itself in harsher terms within the social stratagems

of each Arab country. This situation poses a very serious question: can a nation divided and subdivided into rich and poor and poorer preserve its unity and survive in a world managed by fierce competition and in which there is no place for the weak except the place of subordination and insignificance?

In 1996, the share of the individual Arab from the GDP fluctuated from \$18,260 to \$214, while his share from the GNP varied from \$20,468 to \$215. This being the case, it is more than unfortunate for Arab education to refrain from educating its new generations in the dynamics of economic life, social justice and wealth distribution.

Looking retrospectively:

This is the social drama Arab education is destined to function in. In it are woven the elements of triumph and tragedy, success and failure, wisdom and fallibility. No single person can claim to have the answer for the solution to these tensions. However, in this human entanglement of hope and fear and of certainty and despair, Arab education has a basic role to play and a vital mission to accomplish. The nature of this mission is already determined by the tensions that govern the life of contemporary Arab societies. Within

this context, Arab education should conceive of itself as a tool for social change.

The Salvation:

The word "salvation" is not intended to convey an exaggerated impression. It is merely used to denote the severity of the stressful situation in which Arab Education is entrapped now. The legacy of this misguided establishment is manifest in the dictatorships that swept the Arab world since the fifties, uprooted the emerging constitutional democracies of the first half of the twentieth century and replaced them with the rule of mobocracy. It is manifest in the fear of the modern world, a fear animated from irrational retreat into the past and resignation from the present. It is manifest in the spiritual impoverishment of the new generations and their constant escape from social responsibility because of their victimization to

the 21st century will be dominated, intellectually as well as professionally, by a new breed of professionals, called the "Symbolic Analysts", who will master the three arts of conceptualizing problems, formulating their solutions and brokering their outcome

a sense of loss in the world. It is manifest in the senseless wars the Arabs waged among themselves and against their neighbors, wars that depleted their economic resources and impoverished their peoples. And yet worst, it is manifest in the educational wasteland with which the Arabs are left to enter the 21st century. Thus the task of redeeming this educational establishment is of immeasurable magnitude. Actually, it is not a case of curing an ailing education system nor is it a case of revamping a flagging one. What is needed here is a total redirecting of the educational establishment, liberating it from the gripes of the past, launching it into a new orbit and freeing it from all the crippling misreading of its mission and the requirements of meeting the demands of the new age. In other words, here is an urgent need for a new guiding philosophy to lead the new generations into the 21st century. This is a task of tremendous magnitude, a task that takes its depth from the multifaceted goals of education in the new era, and takes its volume from the complexity of the means necessary for the realization of these goals.

One note is crucial here: the 21st century will be dominated, intellectually as well as professionally, by a new breed of professionals, called the “Symbolic Analysts”, who will master

the three arts of conceptualizing problems, formulating their solutions and brokering their outcome. The formal education of the incipient Symbolic Analyst thus entails refining four basic skills: abstraction, system thinking, experimentation, and collaboration. As all indicators show, these Symbolic Analysts will constitute the new corner-stone for the wealth of nations in the next century. These Symbolic Analysts will include problem solvers, problem identifiers, and strategic brokers who will call themselves research scientists, design engineers, software engineers, civil engineers, biotechnology engineers, sound engineers, public relations executives, investment bankers, lawyers,

One of the major handicaps suffered by Arab education was, and still is, its deep involvement in the reproduction of the traditional culture: ideas, ideals and practices, to the extent of fossilizing the capabilities of the people and isolating them from the rapid changes that were, and still are, taking place in the world, and consequently barred them from catching up with the global progress in the natural and social sciences and mystified them about all the social, economic, political and moral transformations which ensued from that progress

real estate developers, etc. Also included is much of the work done by management consultants, financial consultants, tax consultants, energy consultants, agricultural consultants, armament consultants, architecture consultants, management information specialists, organization development specialists, strategic planners, corporate headhunters, and systems analysts. Also, advertising executives and marketing strategists, art directors, architects, cinematographers, film editors, production designers, publishers, writers and editors, journalists, musicians, television and film producers, and even university professors. Reich stated that, "Symbolic Analysts solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, juggled, experimented with, communicated to other specialists, and then, eventually, transformed

back into reality. The manipulations are done with analytic tools, sharpened by experience. The tools may be mathematical algorithms, legal arguments, financial gimmicks, scientific principles, psychological insights about how to persuade or to amuse, systems of induction or deduction, or any other set of techniques for doing conceptual puzzles."⁽⁴⁾

In the current century, these Symbolic Analysts will be the role models for the national education systems throughout the world. They will be the parameters of scientific power and economic strength as well as military might. The nations who will train and promote the greater number of them will be, technically speaking, the new superpowers of the world. The knowledge and expertise of these Symbolic Analysts will be in great demand by all nations and their costs will be quite expensive. Their education and training do not take place in the universities or colleges. It begins much earlier than that. It begins in the kindergartens and then traverses the educational ladder to its very top. The phenomenon of the Symbolic Analysts education should awaken Arab education to the serious challenges of the near future. In order to face up to these challenges, Arab education should shoulder two awesome responsibilities to cultivate the creative potentials of each individual and

The global economy will not have much use for those students who simply master the basic skills and those who get through high schools by taking courses that call upon them to engage in low-level recall. Under the knowledge-work frame the role of the teacher must change also. Teachers must be thought of as both innovators and leaders

at the same time contribute to promoting cohesion in an increasingly globalized society. In other words, Arab education should strike a balance between transmitting the heritage and opening up to new types of knowledge in the disciplines to be taught, their share of the time allotted to them in the curriculum, and the way ought to be taught so as to prepare the new generations to cope with the change.⁽⁵⁾ One of the major handicaps suffered by Arab education was, and still is, its deep involvement in the reproduction of the traditional culture: ideas, ideals and practices, to the extent of fossilizing the capabilities of the people and isolating them from the rapid changes that were, and still are, taking place in the world, and consequently barred them from catching up with the global progress in the natural and social sciences and mystified them about all the social, economic, political and moral transformations which ensued from that progress. It flattened the Arab mind and made it captive to the past. To unleash these arrested potentialities, Arab education should disengage itself from history in order to re-instate the rising generations in their proper place in the present and the future; in other words, to reintegrate them in the historical developments towards the future and its unpredictable surprises. This reorientation

towards the new goals requires a new vision of the human developmental needs. These needs could be summarized in four kinds of learning declared and propagated by the UNESCO throughout the world as follows: basically, people need to acquire the tools of understanding the world “learning to know”, to develop the ability to deal with their environment “learning to do”, and to participate and cooperate in all human activities “learning to live together”. Finally, they should focus on “learning to be”, which incorporate many features of the other three kinds of learning.⁽⁶⁾

On the economic front, Arab education is called upon to contribute to the preparation of the young people to comprehend the basic realities of the global web which is engulfing all the nations on the planet. Put in the words of Reich, the role of each nation within the emerging global economy where geographic borders are ceasing to exist is “rather than increase profitability of corporations flying its flag, or enlarge the worldwide holdings of its citizens, a nation’s economic role is to improve its citizens’ standard of living by enhancing the value of what they contribute to the world economy. The concern over national competitiveness is often misplaced. It is not what we own that counts, it is what we do.”⁽⁷⁾ The dictum of “what we do” rather than “what

In the last eighty years Arab universities and other institutions of higher learning were flooding the market with graduates in the humanities and the social sciences who in their turn saturated the civil services with over-employment and under-productivity

we own” as the parameter for the contribution of nations to the growth of the global economy and the rewards or punishments that would follow from it has received full endorsement from the UNESCO which affirms that, “it is on the world stage that the fate of each individual is, to some extent, being decided. In economic, scientific, cultural and political terms, there is a steady growth in planetary interdependence that has been brought about by the removal of economic and financial barriers.”

Finally, the new philosophical reorientation of Arab education cannot be achieved without effecting certain conceptual changes in Arab educational thinking. First, and foremost, the concept of the student has to be altered under the “knowledge-work frame” which is now being adopted by the industrial countries. Under this new frame, the student must be equipped with the ability to think and solve problems, to take creative turns, to draw upon a rich vocabulary

based on deep understanding of language and human conditions. The global economy will not have much use for those students who simply master the basic skills and those who get through high schools by taking courses that call upon them to engage in low-level recall. Under the knowledge-work frame the role of the teacher must change also. Teachers must be thought of as both innovators and leaders. On the one hand, teachers are called upon to invent knowledge work for students at which they will be successful and from which they will learn things that are valued by society and its leaders. On the other hand, teachers are called upon to get students to do knowledge-work. And getting other people to do things is the art and science of leadership. Thus the argument regarding the teacher’s role in the curriculum leadership and instructional leadership becomes moot, for built into the school as a knowledge-work enterprise is the idea that teachers are leaders.

Correspondingly, the same vision must be extended to the school administration. Within the knowledge-work frame school administrators are called upon to abandon their authoritarianism and assume the role of leaders. They have to learn to manage their schools by values and results. As leaders they do not manage by programs or tight

supervision; they direct, not control. Leaders in knowledge-work organizations cause others to decide; they orchestrate, they coach and encourage.⁽⁸⁾ Indeed, these are high expectations for Arab education and from it. They point the road to a flexible, dynamic and resilient new Arab education suitable for the new century. However, these expectations cannot materialize without placing the entire educational enterprise on three solid ideological pillars that could guarantee its success, namely (1) change, (2) adaptability, and (3) mobility. If faithfully adopted and consistently adhered to, these cardinal concepts can revitalize Arab education and imbue the minds and spirits of the new generations with an unrelenting passion for leading an optimistic, rich, and ever-changing life.

Education as Human Development:

In order to avoid repeating the errors of the past, Arab education must be viewed not merely as a schooling enterprise, but rather as a project for rejuvenating the social order within which it is functioning. While teaching and student scholastic growth remain a central duty of education, the holistic development approach formulated by Myrdal⁽⁹⁾ should provide this education with a

education should be validated not by the kind and amount of knowledge and information it transmits to the learners, young and adults, but by integrating itself into the general developmental project of each country it exists in

broader perspective of refocusing its ideology and practices on a new social purpose: the profusion of the masses with an enlightened thinking-system, a perception of modern life and positive working and collaborative relationships between the individuals and their social institutions. Hence, education should be validated not by the kind and amount of knowledge and information it transmits to the learners, young and adults, but by integrating itself into the general developmental project of each country it exists in. it should be intentionally geared to the total integration with these projects. For this purpose, the validity of Arab education should be tested on a scale of eight points:

1. The number of literate persons in society and, by contrast, the number of illiterates.
2. The number of children enrolled in the different stages of education and their percentage to the total number of their

Mohammad Jawad Ridha: Education and Change in the Arab Countries

peers in each stage.

3. The continuity and regularity of their school attendance.
4. The length of their stay in the schools of different stages.
5. Children's scholastic achievement, the quality of the skills they acquire, and the areas where they excel more.
6. Kinds of knowledge and information imparted to the public by means other than the schools and formal education, institutions such as community service centers, the provision of scientific and technical information to the farmers in order to develop their agricultural capabilities and increase their productivity.

Programs of renewing laborer's knowledge and their know-how in order to upgrade their skills and improve their productive industrial capabilities.

The extent to which people apply their newly acquired knowledge and skills to their daily living conditions in areas like family health, family economic management, political awareness and the kind of active interest they take in their national life.

Judged by this scale, Arab education is still

too far from playing a positive role in social development. The disparities between male and female education are still great. The ratio between medical doctors and the population is staggeringly low, one doctor for every 2,220 persons on the national levels. In the UAE the ratio is one to 1,095, in Kuwait one to 617, in Saudi Arabia one to 698, and in Libya the ratio is one to 962. These ratios are relatively close to those of the industrial countries (i.e. one to 344). Thus the non-oil producing countries are greatly under-provided for in this area. The ratio of physicians to persons one to 4,840 in Morocco, one to 1,115 in Sudan, one to 1,320 in Egypt, one to 1,757 in Tunisia, and in Algeria the ration is one to 2,341. This differential availability of medical services reflects itself more alarmingly in child mortality which is high at infancy, and increases steadily until the age of five. Once again, the rate corresponds to that of the medical services, lower in the oil producing countries, higher in the non-oil producing countries.

In the last eighty years Arab universities and other institutions of higher learning were flooding the market with graduates in the humanities and the social sciences who in their turn saturated the civil services with over-employment and under-productivity. These educational institutions were mindless

of the real needs of the people in areas which mattered more, medical care, agriculture and the industrial arts. They failed to create the general awareness and consciousness of the role and value of modern scientific knowledge in the improvement of life quality and in maximizing the productivity of society. At the turn of the century, and as we go forward in the twenty-first century, Arab peoples deserve such a life quality and an education that is compatible with it.

Notes

- * Dr. Mohammad Jawad Ridha (1931-2012) is one of the most important education experts in the Arab World. He earned his Ph.D. from the University of Michigan, Ann Arbor, in 1959, then returned to Iraq to take a faculty position at Baghdad University (1959-67), with a three year interim teaching period in Saudi Arabia (1964-66). He moved to Kuwait and remained there as a professor and education expert (1968-1991). After Kuwait, he moved to Jordan to work at two of its leading universities (1992-99). Then, Dr. Ridha moved to Bahrain to work for three years at the Bahrain University (200-2003). His last residence was in Ohio, USA, until 2012.
- 1 UNESCO, "Education for the Twenty-First Century," 1995.
- 2 Arab League Education, Science, and Culture Organization (ALESCO), "The Unified Economic Report for 1993," Cairo: 1993.
- 3 ALESCO, "The Strategy for the Development of Arab Education," Tunis: 1979.
- 4 R. Reich, *The Work of Nations: Preparing Ourselves for the 21st Century Capitalism*, 1992.
- 5 UNESCO, "Education for the Twenty-First Century," 1995.
- 6 Ibid.
- 7 R. Reich, *The Work of Nations: Preparing Ourselves for the 21st Century Capitalism*, 1992.
- 8 P. Schechty, *Schools for the 21st Century*, San Francisco: 1990.
- 9 G. Myrdal, *Asian Drama: An Inquiry in the Poverty of Nations*, vol. I, New York: 1968.