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Educational Policy Makers' Views on Secondary Education Relevance to the World of Work in Iran: A Critical Reflection on 1990s Educational Reform

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Abstract

This paper reports the results of a qualitative study about the effectiveness of major reforms taken place in 1990s towards closing down the gap between general upper secondary education and the economy in Iran. The study aimed to analyse questions such as: To what extent dose Iranian secondary education meet current and future needs of labour market? How satisfied are employers and other key stakeholders with the quality of high school graduates in the workplace? And what are the most important further steps that policy makers should take into the account to complete the reform process of secondary education successfully? Field work using a series of semi-structured interviews was carried out with senior policy makers in the Ministry of Education. The research findings indicate that there is no systematic employers' involvement in debates and decision are made about educational improvement causing a weak cooperation and partnerships between education and businesses. Also there is still a big gap between what is taught in schools and what employers require leading to the greater degree of dissatisfaction among employers.

Key words: secondary education; youth employment; educational innovation; business partnership

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Introduction

It seems that one of the main goals of Iranian educational policy makers is making education more practical and presenting required techniques and skills for labour market and preparing proper basis for graduates' employment (Khaledi, 2008). But like many other countries, students in Iran are leaving secondary school while what they have learnt is mostly different from what the world of work and the labour market requires (Azizi, 2004). This is because in this highly theoretical-based educational system a little attention is given to what young people need for their future life of work. It is also unable to prepare them with suitable career abilities to participate in the work. Problematic circumstances of the young people from the employment point of view and increasing unemployment among school leavers have led policy makers and educators in many societies to reform educational systems in order to make education more relevant to the needs of the economy. Therefore, for learning to be relevant enough to young people to sustain their motivation and commitment, it must be a part of a clear pathway to success, replete with real opportunities that are worthwhile and attainable. To create this reality, educational reform and practice must be linked to economic development and employment prospects.

The importance of a strong relationship between secondary education and the world of work is better understood if we pay attention to two challenging matters in Iran. On the one hand, the country's population is one of the youngest populations in the world with over 50% of the population being under 24 years of age (SCI, 2003). On the other hand, in the light of social and cultural awareness, increasing demands for benefiting of education as a right has resulted in rapid growth in students' population which now is over 17 million, four million of whom are studying at the secondary level of education (MOE, 2003).

As a result, the country's young population and the increasing number of secondary school leavers in recent years have created a complex and problematic situation for society as a whole. From the employment point of view and in order to bring down the high rate of unemployment, policy makers have no alternative except redesigning and reframing national educational system and tightening its

connection to the country’s changing labour market. Because, if the current situation remains unchanged, not only will workforce needs of the economy be left unanswered but also the unemployment problem will be easily shifted to the universities’ graduates which is too sophisticated and difficult to overcome. Table 1 shows how the number of students in academic and general secondary schools has sharply increased during last three decades from 405,009 in 1975/1976 to 4,027,452 in 2002/2003, while students in technical and vocational schools increased from 150,509 to 752,754 in the same period of time (MOE, 2003). According to the latest figures although the number TVE students has increased to 944260 students in 2006/07 but it is still containing about 22 percent of the students population in the secondary education (SCI, 2007).

Table 1: Number of students in academic secondary and TEV schools in Iran by sex (1975-2007)

Year	Number of student s in General Secondary Schools		Number of students in TVE schools	
	Male	Female	Male	Female
	Total		Total	
1975/76	268042	136967	121444	29065
	405009		150509	
1994/95	1450252	1262308	178811	49430
	2712560		228241	
2002/03	1959339	2068113	469719	283035
	4027452		752754	
2006/07	1659680	1730821	612999	331261
	3390501		944260	

(Co-ordination Department of Development Planning, Ministry of Education 1996; 2003; SCI, 2007)

Despite the numerous reform program launched in education since 1960, and also the recommendations presented by a number of national educational commissions, particularly after the 1979 Islamic Revolution, regarding changes to the structure and organisation of the educational system in general and secondary education’s objectives and policies in order to improve the effectiveness of this subsystem in particular, many problems and developmental issues still remain. A very negative feature of secondary education is its strong focus on academically-based courses which are studied by around 80% of

secondary school students. Whilst the inappropriateness of this system was clear to educators and senior educational policy makers and officials, no systematic attempts have been made to address out the causes of this problem. As a consequence of this policy, every year a huge number of high school graduates (1,500,000 students in 2004) participate in the University's Entrance Exam (Concour) while only about twenty percent of them have the chance of being offered a place. While all the resources are spent on academic secondary education, our technical and vocational education with its poor conditions has nothing to attract students and their parents. It seems that these are the two extreme of one equation. Therefore these problems not only interrupt the objective of preparing a well-qualified and appropriately trained workforce to meet the increased economic development needs of the country, but also lead to increasing unemployment amongst young people. It is clear that the shortage of skilled and semi-skilled people in the Iranian workforce was one of the main factors preventing the realisation of the objectives of a number of socio-economic development plans (MOE, 1990).

Although preparing young people for employment has been always one of the main goals of formal educational system and the global approaches of education in recent decades have given a high priority to this, but the country's educational system has sharply been criticized because of a high rate of unemployment amongst school leavers (Saeedi Rezvani, 2003). Also, Mirzaee Molla Ahmad and his colleagues (2006) have shown that the graduates' knowledge and skills in Iran are very much less than the employers' expectations and they are satisfying them. In addition, there is a weak and fragile connection between education and employment requirements. Therefore, regarding high rate of unemployment among Iranian school leavers, upgrading the position of TVE and expanding work-based learning can lead to an acceptable rate of the youth employment in the country (Esshaqian, 2003).

Backgrounds

The socio-economic changes currently taking place in many developing countries require that countries undertake a restructuring of secondary education. Since the demands of producing skilled

manpower to match societal needs at the production, technical and professional levels are great, it is important for secondary education to prepare young people who are highly motivated and who want to pursue learning as a lifelong process.

A brief look at educational reforms in most countries around the world underlined the point that one of the strong bases for these reforms is attempts to bridge the gap between education and the economy.

Making education relevant to the world of work both in schools and out of school schemes (training programmes), is one of the crucial matters for official bodies in any society. The range of investment in education and the range of researches and studies which try to improve the quality of education in both state and private organisations show that an effective secondary education has a key role in directing society's development process towards its goals, overcoming constraints to sustainable development (Azizi and Lasonen, 2006; UNESCO, 2004). Particularly in terms of employment, education has been recognised as an effective factor. Also in attempts toward bringing down the unemployment rate amongst young people, making education more relevant to economic needs is essential and has been a strongly pursued policy objective. Thus, in response to this question that why is making education more relevant to the economy and more closely related to vocations and employment requirements important? There seems to be two main answers: at decreases youth unemployment while increasing economic benefits for both individuals and society by promoting higher level skills and higher rates of return to any individual and societal investment in education (Blaug 1973; Carnoy, 1977; Dore and Oxenham, 1984; UNESCO, 1991; Lewin and Caillods, 2001).

A shortage of qualified workforces, at least in some sectors, exists in all countries without exception. This is not to be wondered at because technology is constantly advancing, creating sudden new requirements which, even if all the appropriate measures were adopted, would take some years to meet. However, according to Carnoy (1977), it can be assumed that there is a connection between the causes of unemployment and inefficiency in public investment as a principal determinant of educational unemployment or under-

employment. With this assumption, as he has highlighted, the school system can be blamed for unemployment in the following ways:

1. hastening the migration from countryside to city by providing a general education in rural areas which is useless for increasing agricultural production but increases expectations for work and income which can be met in rural areas;
2. over schooling people relative to the jobs they can get, so that they effectively stay out of the labour force for long periods of time rather than accept work beneath their expectation; and
3. Misschooling people so that they can not find jobs related to their school-learnt skills (Carnoy, 1977, pp: 22-23).

Therefore, to improve youth employment, the activities implemented in some Asian countries like Japan, South Korea and Singapore have been highly effective in helping: (i) “to achieve the provision of learning experience at workplace for out-of-school young people and to facilitate the movement from work into education and vice versa; (ii) the promotion of educational forms, methods and structures which incorporate work skills in general education, in order to equip education for the world of work; and (iii) the furthering of national efforts for introducing work as an integral part of general education and the inculcation of employable skills in school leavers to respond to changing needs of technological development” (UNESCO, 1991, p: 29). Although, ‘the rise in youth unemployment means that many young people are losing skills or employability’ (OECD, 1994, p: 41), the causes of youth unemployment are multi-faceted and complex. Bynner (1996) pays attention to individual factors causing unemployment and stresses the importance of basic and work-related skills for the occupational trajectories. In his view education contributes not only to the human capital of an individual but, even more importantly, provides a skilled individual in a society full of risk. The role of education and training in resisting unemployment is more as a protector of young people than as a guarantor of entry to employment (de Goede, et al 1996).

Drawing on comparative data collected on young people’s transition to employment in England and Germany, Bynner and Roberts (1990) develop the argument that education both serves labour market needs in enabling employers to select people for jobs,

and contributes to its transformation through the skills brought into employment and the demands the newly educated place on the products of industry. Fundamental to these functions is acquisition of the basic skills of literacy and numeracy, the absence of which increasingly jeopardises prospects of employment in industrial societies. Clearly education and training alone can not guard against unemployment either at the macro or micro level but, the results of studies argue, in the world of modern employment, where generically transferable skills and re-learning at regular intervals increasingly characterise occupational careers, they provide the critical elements of survival and progression in hostile and changeable economic conditions. Their effects are demonstrated differentially across different societies, different labour markets and different regions. Logically, adequate education is not a sufficient but indeed a necessary condition for getting and holding a job.

If unemployment implies a considerable economic, social and individual waste (Alexander, 1996), then one of the claims frequently made will be that the problems referred to youth unemployment are in large measure a reflection of faults in the educational system. Schools no longer teach the 'basic skills' and the educational system does not prepare young people adequately for the world of work. The courses in the last few years at school are seen as irrelevant by many of the less academically minded young people and are too detached from working life and the problems of industry (Jackson, 1985). The possibility that part of the lower quality of young labour, and its higher unemployment rate, is attributable to inappropriate education. This problem can be reduced by raising the labour quality by improved education and vocational training (Hart, 1988).

The recent studies add in a number of ways to the researcher's understanding of the role of education and training in resistance to unemployment. They have pointed out skills deficiencies as one of the mediators of labour market difficulties, initially by creating problems in the transition from school to work, and subsequently by restricting job entrants to a limited range of insecure, often unskilled, employment. Their effects are of course exacerbated in weak and declining local labour markets, but we may expect them to be felt everywhere. Though having basic skills clearly cannot prevent

unemployment, the data presented here lend support to the proposition advanced at the beginning of the argument that these skills and work-related skills that are built upon at by young people, provide a degree of protection against it (Shackleton, 1995; Bynner, 1996).

What role can education and training system have in resisting youth unemployment? The message that comes from these data is that in situations of ever-growing economic uncertainty, human capital as embodied in general education becomes ever more a premium. It offers the foundations on which the skills for modern employment can most effectively be built, giving employers the kind of workforce they are increasingly seeking and individuals a degree of security. Reducing investment in education, therefore, may put in jeopardy the acquisition of the core skills which lie at the heart of the modern economy and are perhaps the best protection against its risks (Stallman et al, 1991; Bynner, 1996; Woodhall, 1997).

However, developments in the industrial structure of the economy are a key determinant of the changing pattern of demand for skills. These changes are the result of many interacting influences (Wilson 1995). The changing industrial pattern of employment in the developed countries also has important implications for other aspects of employment structure, notably the rising share of female employment, increasing incidence of part-time work and the continuing growth in self-employment. Beside issues like employment growth, of course, there are some important issues which need to be considered. Issues such as maintaining the existing stock of skills are also important. As Wilson (1995), has highlighted analysing of employment structures has important implications for the scale and nature of education and training provision. These key issues can be summarised as: "recovery from economic decline; medium and long-term shifts in labour requirements; maintenance of the existing stock of skills; links between education and training and economic performance; equity versus efficiency" (Metcalf, 1995, p: 26).

Therefore, in order to approach these circumstances and also regarding provision of more work-related education which needs a higher level of education and business partnership, there can be seen many traditions and models each one of which represents a specific background. Amongst the major models, three are more important.

These models are Japanese “Work-based Model”, West Europe “School/Work-based Model”, and British and American “School-based Model” traditions (Azizi, 1999). A comparative analysis reveals that although European countries are practicing and applying various forms of traditions and models in their upper secondary education, it seems that they are suffering from a series of common challenges and are emphasising similar priorities to improve their educational systems. This study summarises the following European common priorities toward having reformed and improved Vocational Education and Training (VET) systems:

- parity of esteem;
- the labour market context (matching VET provision to labour market needs, future skills, lifelong, core/key/transferable skills);
- the features of the educational system emphasised by the reform, and the model of change;
- local networking/linking between schools, and between schools and working life, to find new forms of learning for future skills;
- teacher education or/and teachers’ co-operation supporting the reforms; and
- qualifications, curriculum development, and the flexibility of student programmes (Lasonen, 1999, p: 146).

In the Strategies for Achieving Parity of Esteem in European Upper Secondary Education, Lasonen and Young (1998) have identified four most common used strategies of Vocational Enhancement, Mutual Enrichment, Linkage, and Unification in the educational systems of eight European nations for removing the existing esteem disparity between vocational and general education. As a result, what is important for Iranian policy makers is to introduce an appropriate and relevant model for the country’s secondary education is that an effective system has to have at least the following criteria:

- The system must have enough status to attract and motivate young people.
- The system must provide incentives and institutional support for employers to offer high-quality youth training.
- The system must be feasible, i.e., one that is suited to the Iranian context and can be implemented with the resources available.

This study, however, highlights that there is an increasing emphasis in most of countries around the world, on relating education to the world of work, this being viewed in a much broader sense than merely preparing individuals for entry to a particular occupation. This reflects the belief that education systems need to prepare pupils in a way to enable them to choose socially useful and productive work in industry, science and so on. There is also the realisation that a country's economic development will only occur if a sufficient supply of trained manpower exists, thus schools need to be responsive to the changing requirements of economic systems.

However, following UNESCO (1992), the increasing emphasis on education for the world of work has been stimulated by such important factors as:

1. the need to ensure the relevance of education to countries' socio-economic development priorities.
2. the accommodation of increasing technological developments in society in relation to labour force requirements.
3. a wish to reflect the changing expectations of employers in education.
4. helping school leavers obtain access to employment.
5. developing in pupils a basic literacy with regard to science and technology. and
6. a wish to contribute to the modernisation of education system so that the changing needs and aspirations of both individuals and the society as a whole are met (pp: 366-78).

These trends, which relate to the interface between education and the world of work, entail five particularly important aspects. The first is practical activities relating to work, which are considered as an integral part of the learning process since they enable a suitable balance to be struck between theory and practice. The second is participation in work activities which help strengthen and develop what are regarded as desirable social attitudes; the value of the work ethic and participation in national development. Thus educational programmes should increasingly embody work experience and other related schemes. Third, career guidance and exposure to the world of work must be available to ensure that a solid foundation is in place so that young people and their parents can make informed decisions

about their future and can select the appropriate pathway. This requires a radical rethinking about our current structure of guidance and counselling and the way we initiate young people for adult roles. Fourth, to maintain motivation and optimum performance, student progress should be determined and feedback provided continuously. This suggests the need for different modes of assessment designed to inform student progress and programme success rather than penalise and discourage student advancement. In this regard, there is progress being made toward the development of more authentic methods of assessment including portfolios, project work and competency based measures. Since the country's 1991 Education Acts, officials have set up an assessment system akin to the role of quality control to check all educational changes and improvements continuously which affect the quality of reformed system. They can then provide quick feedback for the correcting or further improving of the secondary education. The fifth aspect concerns the provision of transition from school to work through the preparation of pupils for the world of work. Trends in this respect include linking education programmes more closely to work skills and developing appropriate work competencies, habits and understanding. This integration of vocational experiences with general education has also been sought in many countries and has resulted in courses in basic practical skills development, self-employment programmes and entrepreneurial training. However, these aspects are helping to broaden the foundation of secondary education concerning the world of work's needs.

Methodology

This study adopts a qualitative approach and the data were collected through semi-structured interviews conducted in Tehran. Official documents were also used. In order to examine the philosophy and socio-economic reasons for launching fundamental changes in educational system in general and reforming the country's secondary education in particular, analysing the views of senior policy makers was considered as an important and critical source. The reason for choosing these key informants was their crucial role in adapting new policies and priorities for Iranian educational system.

In order to increase the validity of interviews' question in addition to use a relevant academic framework and concentrating on a rich theoretical and empirical studies, the content and format of the questions were checked controlled by some scholars and researchers in the International Institute of Educational Research of Finland.

The study was carried out in two phases. The first phase involved an intensive literature review about the subject emphasising international experiences using a comparative approach. The second phase (the fieldwork) lasted 2 months and involved a set of semi-structured interviews with 20 senior officials. The purpose of the study was to examine policy makers' views about current and future educational policies, priorities and models which the Ministry of Education follows concerning reforming the country's secondary education to make it serve as a better link to the needs of the economy. Content analysis was used for drawing, explaining and analysing the research data.

Findings and Discussion

Generally, in clarifying the relationship between secondary education and the economy's needs in terms of human resources, this research concludes that the current secondary education system in Iran has not been structured in the way that responds best to those needs. The majority of policy makers at the Ministry of Education believe that there is a big difference between what schools teach and what our industry requires. This can be seen by taking into account schools' performance in this respect, and analysing how schools emphasis those required skills, attitudes and abilities.

Educational policy makers have a key role in educational systems, in particular, in those systems which are centrally organised, for example the educational system in Iran. These people have traditionally been responsible for making decisions or taking actions nationally or locally. Therefore, it is supposed that they know better and more about the schooling system and its weaknesses and strengths. For this reason, policy makers have been considered as an important source to find out more information about what they think about education and economy relations in Iran, how they try to bring

these two systems closer, and how they might reform education in this respect.

The Education and Economy Relations

The first area of enquiry was about philosophy and critical reasons which formed the basis for educational reforms towards linking secondary education to the economy in Iran. So as a first step, senior officials were asked why secondary education should be linked to the economy effectively. In presenting policy makers' views, for the most part, I have combined their opinions using a cross-comparison method and on specific occasions I have quoted their views directly.

There is no doubt about the importance of linking education and economic systems in the modern world. Both educational and economic systems are important elements that contribute towards national growth and development. These factors also have considerable interaction with each other in the process of improving and developing. For example, an improved educational system could respond effectively to a developed economy's needs. However, social, cultural and educational development is unavoidable when a society achieves economic growth and development. In other words, a co-ordination between the education and economic systems leads to more economic development and also it has a range of benefits for the educational system too.

Theoretically Iranian policy makers believe that linking of secondary education's policy and practice to the economy is essential because:

It not only enables the educational system to prepare young people according to economic requirements, but also changes the direction of education at this level towards covering needs and requirements of the world of work rather than higher education.

It helps educational policy makers to make long-term decisions that are consistent with national economic and social development plans.

With a regular exchanging of views between two sides, educational policy makers would be able to have continuous and immediate feedback from all sections of the economy: industry, business, and services.

A strong and justifiable relationship between education and the economy will lead to an attractive work-based learning for students and changes in their parents change their attitudes respectively. A policy maker has stated that:

By highlighting the roles and values of 'working' and emphasising it, this process enables the educational system to influence parents' and young people's attitudes to working life. The logical result of the education-economy links will be seen in the raising of students' understanding of economic and industrial working.

Although several socio-economic and cultural factors should be considered when the role of a mismatched educational system in the increasing rate of youth unemployment is discussed, based on Iranian policy makers a relevant secondary education has a specific role to play when they pointed out:

Linking education with the industrial and economic sectors, particularly in developing countries which still have a lot of vacant jobs for skilled people, can lead to an increase in the rate of youth employment.

From career education point of view, policy makers also agree that a work-oriented education is more needed for our growing society, by addressing that:

This link allows students to learn those skills and abilities which can benefit them when they enter the labour market. One of the big problems that school leavers face after school is that they know nothing about work and they should go to private training agencies to train them in the necessary skills in a specific field.

When young people are aware about the range of available careers, they may understand better what their future' life looks like, so making a satisfactory decision about their choice is possible.

A remote teacher education and training from current economic and employment trends is problematic in itself. According to policy makers reforming that relationship between education and the economy is also beneficial for updating the country's programmes for teacher education and directing their methods of teaching:

This is a possible way for teachers to update their teaching and learning strategies and address new techniques, changes and experiences in the related fields. Indeed, teachers' exchange of

experiences with industrial expertise can have a great effect on the learning process.

In fact a well-managed and well-motivated cooperation with other social and economic organisation can bring about more facilities and resources for educational planners to allocate to schools. This is very important in particular in the time of crisis and economic downturns. They highlighting this point they emphasised that:

This is an economical way of using scarce resources. It is possible for economic and education systems to pool their resources for mutual benefit under some circumstances.

In the second step policy makers were asked to what extent they thought the system of education in Iran is or should be congruent or planned to match with the economic system. This question compared two different eras: the previous model of secondary education which dated back to early 1970s and the reformed one which has been introduced since 1991 and has been criticised by educators and researchers for its failed mission towards the fulfilment of the needs of the economy.

The national goal has been concentrated on co-ordinating all aspects of economy and education ever since the first Mid-term Development Plan in 1949 began. During plans that followed policy makers and planners have tried to improve co-ordination between all the different sectors and activities of society in order to achieve the development target. The new Islamic government in 1979 tried to focus on the relationship between the education and economic system because at that time secondary education was the main source for skilled workforce. For the government, reforming the system of education, which was then largely based on the western educational systems, was the first priority.

By the time of the Cultural Revolution in 1980's, which led to the closing of universities and higher education institutions, the Ministry of Education was ordered to fundamentally reform the educational system. An emphasis on a skilled workforce for the industrial growth of Iran was one of the important aims of the reform. But the reform of the educational system was postponed mostly because of the conflict between Iran and Iraq in 1980's.

However, two noticeable aims underpinned the guidelines for the reforming the educational system which was launched finally in 1991: firstly, conformity with the economic policies which were aimed at self-sufficiency and economic independence by preparing skilled young people for the world of work and second, reducing social pressures because of increasing youth unemployment mostly after finishing of the Iran and Iraq war. When young people came back from war fronts, their simplest need was to have a job, of course they were unskilled and unprepared for the world of work and adult life. The current educational system with some minor changes in compared to the previous system has failed to prepare young people for employment on the one hand, and to adapt to a changing economy on the other. The interviewees declared that:

The current system has not been linked to industry at all because it has been established to prepare all students for higher education. So a strong emphasis on theoretical knowledge is one of the main characteristics of this system. While in the reformed system we have set up another branch in the secondary schools (Kar Danesh) which gives a good range of careers education choices. This branch will take into account the previous experience of students from out of school as a part of schools' courses. I think the essence of our educational reform can be concluded in this branch.

Indeed a misdirected and meaningless secondary education in the country with its weak curriculum relevance and ill-equipped instructional resources is a major cause for academic failure and high rate of drop outs amongst students, as is evident from the comments of three Iranian policy makers:

It seems that the high drop-out rate amongst students is a result of insufficient relations between education and industry. In the new schooling method we have not only added more practical and applied sessions which need an active participation in class, but by developing work experience scheme for students in vocationally-based courses school-industry links will be emphasised.

The central developments of the school curriculum and ignoring the needs of regional employment have led to an unequal opportunity for students from different areas. So, as a policy for the third socio-

economic development plan (2000-2005), educational policy makers have to emphasise the decentralising of educational approaches.

Insufficient investment in technical and vocational education and failing to equip it, has presented this kind of education as a poor and low education which is a major reason for negative attitudes amongst students and parents to VET in our society, although in the new system changing of the parents' attitudes has been considered as a very important factor to reach to our goals. The development of technical and vocational education has a specific place among those policies, but parents have not responded positively to changes which have taken place in the system yet.

Beside reluctance of both educational and industrial parties to have a close cooperation, one of the policy makers also complained about other governmental organisations, and ministries, failure to be cooperative sufficiently towards the solution of is crucial national dilemma:

Lack of co-ordination between different ministries in subscribing and supporting a unique policy in terms of preparing required human resources, and grudging the educational policy maker the right of setting the economic aims for the education is leading to inappropriate relationships between the education and industrial sectors.

Therefore, educational policies are led towards changing the existing structure of education in terms of having a close co-operation with the economy. An important dimension of this process is improving the ratio of technical and vocational education in comparison to academic courses, approximately from the ratio of 10/90 at the secondary level in 1994 to the ratio of 50/50 by the end of the third five-year plan in 2005 (MOE, 1995). Although this was considered as a workable solution for improving the connection between education and industry and involving country's economy in the learning process, in practice educational system failed to gain its determined goals in this respect.

Policies and Models

The second area of enquiry was finding out upon what kind of policies and models the country's educational reforms are based. Have

policy makers followed other countries experiences? If so which country (ies), why, and how?

For policy makers, concentrating on two issues as central points in their policies seemed to be very important: the development of technology and improving the quality of human resources.

Educational reform in the country has focused on two major purposes: it aims not only to reduce high unemployment amongst school leavers but also to improve the educational system's relations with the changing economy in Iran by providing school leavers with appropriate skills and knowledge, a purpose that the current educational system has not been able to fulfil. From the words of number of policy makers following reasons and causes for this failure can be highlighted:

- A strong emphasis on the preparation of students for higher education;
- The lack of social status in technical and vocational education compared to liberal education;
- The lack of active relationship between education and the labour market;
- The neglect of local and regional requirements in a highly centralised and controlled education system; and
- A depressed economic system which the government has not been able to reform completely. This system will soon change to an open market, while the educational system is still centrally controlled.

However, reviewing other countries' educational experiences, studies, and models was a strategic policy for educational policy makers in their efforts to re-orientate policies. In order to deliver this aim, a committee including policy makers and educators in different fields were ordered to visit and review secondary education systems in a selected number of countries which included Japan, Australia, England, Germany, India, South Korea and Sweden.

As a result, after a reviewing these countries' educational systems and models, the committee recommended the Ministry of Education to follow and use some of these countries' experience in the reforming of the country's secondary schooling system as follows:

First, for technical and vocational education the committee recommended the German (Dual System) as a first priority and the Australian system as a second. Based on this report and other internal studies, policy makers have therefore introduced two models of technical and vocational education. Most of the policy makers believed that the dual system in Germany is the best model for Iran to focus on in its vocationally-based courses. In response to the question that what was significant in Australian secondary education and German dual approach, one of the policy makers pointed out that:

The dual system in Germany with about 70 years experience has been considered as a powerful model among all existing models and traditions which try to link education to workplace. This model has provided a balanced and reasonable relationship between education and industry in Germany which has increased a strong commitment concerning the responsibilities of both educational and economic systems. Good co-operation between these sectors has resulted in a high quality labour force which we can see by analysing the very successful economy in Germany after the Second World War. Also in Australia, a flexible model for technical and vocational education has been created which we have used as a guideline in designing training courses and schemes. Emphasis on core skills like problem solving, decision making and team working is noticeable in these systems. But I should say we have tackled this creatively. For example, we have established our new vocational branch-Kar Danesh- in a way which you cannot find either in the German or in Australian models. In this model we accept pupils' experience and skills and proficiencies which have been learnt out of school as a part of the school's programme, if pupils can pass the relevant exam and reach standard levels. So we think this system with these characteristics can attract parents' and pupils' attentions to vocational education positively.

Secondly, for the academic courses of most general high schools, policy makers have introduced the credit system which changes year long courses to modularised sessions (semester or term). For this model which emphasises academic abilities, the Japanese system has been followed.

One of the most serious problems in the present system is the increasing rate of drop out amongst students and their failure in

school. According to research outcomes, the method of schooling is the main cause of the problem. Because in many cases when students fail to pass only one or two exams and they have passed the majority of sessions, they have to repeat the whole course in the next year. That is very difficult particularly for teenagers who stay in the same class where they were last year. Contrary to year-long method, in the credit system if a student fails in one session, he or she repeats only that lesson. Therefore, with this approach we can save a lot of money, time, and our resources on the one hand, and reduce the high rate of drop outs amongst pupils on the other. Also, it is possible to arrange the whole secondary schools last three years, while the length of the current system is four years. This will give a good opportunity -one year- particularly for boys to follow a suitable training course so that that acquire above skills before they go into the armed services.

Thirdly, for pre-university courses, the English Advanced Courses ('A' level) have been taken as an appropriate model. While, in the new system the period of studying in the secondary schools has been cut down to three years, most of the high ranking pupils are able to attend a one-year pre-university courses as an introduction to higher education.

We believe that this may help students to be familiar with the ways of studying at university, prepare them with more related and specific knowledge and ability which is required for higher education levels. And also these courses can reduce the gap between new secondary education which is more general and university level which is more professional. This is an opportunity to direct intelligent students towards higher education.

Employers' Involvement in Curriculum Development

The third area of enquiry looked at how policy makers try to involve economic and business experts and employers in order incorporate their views and experiences in the secondary school curriculum regarding their required workforces. And also how Iranian system of education analyses the requirements of the labour market (required skills), and how the educational policy makers intend to cover them in schools programmes?

According to the majority of policy makers it was common that: Educators and policy makers should have clear answers to those questions regarding what kind of education and skills are required by the labour market, and which organisations or sectors are responsible for providing these training and skills. Thus the contribution of industrialists and employers in the re-examination of the educational policies was essential for us.

It was commonly agreed that recourse to the following tasks can assist curriculum planners in having a clear understanding of employment situations, their requirements and the complexity of the workplace:

- workplace observations;
- analysing of jobs and their needs;
- reviewing of employers' attitudes;
- reviewing of employees' experiences; and
- reviewing of on going process of work: the level of technology and the level of required knowledge and competencies.

The outcomes of these processes finally led to the introduction of a 'Job Analysis Model' by which curriculum planners can have an accurate perception about current and probably the future employment possibilities and providing more work relevant learning materials for vocationally-based courses.

The Future of Reformed Education

In the final area of enquiry policy makers were asked to what extent they thought that the outcomes of the educational reforms cover the national aims to link education to the economy? Which factors will affect the expected results from the new educational system in terms of preparing school leavers for the world of work? In fact in order to implement a reform process successfully making advance provisions are essential, as it is evident from the words of two policy makers:

Basically, in order to assure that any change and reform is implemented successfully and is fulfilled the missions of reform some conditions are needed to be considered.

If a government wants to reach all the predicted aims of educational reform, it should develop all the required conditions.

The most important requirements for running this system successfully according to many of policy makers are as follows:

1. We need to improve the co-operation between the educational system and all the related organisations which are employers of skilled people;
2. Any changes require care; the required conditions, resources and facilities need to be provided;
3. The government should develop some policies in terms of encouraging those industrial managers who demonstrate positive co-operation with education in order to keep this in place;
4. We have to improve the flexibility of the school curriculum and keep it updated as regards economic and industrial development;
5. An effective vocational education must be supported by running regular workshops for different fields and courses should be expanded and developed;
6. Expanding and developing the short-term technical and vocational courses;
7. We are developing a policy in which priority in offering jobs will be given to those students who have got skill qualifications and who have completed their courses successfully;
8. It is important to pay attention to the geographical and regional differences in educational planning;
9. A range of continuous programmes for improving parents' attitudes towards technical and vocational education need to be provided, and
10. At this point in time there have been no graduates from the reformed system so we cannot judge its success. Up to now the system (the structure, policy, and curriculum) have been evaluated

three times. The results of such evaluations indicate a gradual improvement of the quality of the new system.

Although, policy makers generally demonstrated a positive view of the reformed educational system and they highlighted some advantages of this educational development in comparison to the present secondary schooling system, some of them are still worried and are not sure that the Iranian educational and economic systems can be dovetailed together.

Despite these achievements, the Ministry of Education still is struggling with some problems which to officials need to tackle and try to work out appropriate solutions. Problems which based on most of policy makers views, perhaps affect the efficiency of the reformed secondary education include:

Although we have stressed the role of careers education and guidance as necessary elements for succeeding in the new secondary system, we have not developed a workable guidance programme in secondary schools.

The social position of technical and vocational education is worrying, parents still decide for their children where and in what field or subject they should study.

The economic system in Iran has not settled down yet because of the revolution and war, and the Ministry of Education can still call upon a certain relationship between its policies and that system.

Iranian industries and companies have not yet reached the point where they believe that education (learning & training) should be considered as one of the crucial stages in the process of production.

Workplaces (labour market especially in the private sector) have not sufficient motivation to educate and train human resources because of the high costs involved.

However, reforming and renewing of a complex and multifaceted social system such as education in the time of uncertainty and rapid changes is not an easy process. Thus if policy makers want to make effective decisions towards re-engineering Iranian system of education in the line of other nations development and achievements, they have

to take several influential social, cultural, economic and even political factors into consideration by adapting and utilising a systematic approach.

Conclusion

The failure of education systems around the world to establish and exploit the crucial link between education and the labour market is concerning. Studies show that the gap between schooling systems and the needs of the economy can be closed if more attention be given to educational enhancement, redirection, balancing costs, and promoting school-industry links (Azizi and Lasonen, 2006). Indeed one of the goals of our systems of education is to provide our young people with the skills and knowledge they need to succeed in the labour market (Hango and de Broucker, 2007).

The opinions of senior officials at the Ministry of Education about the relationship between education and the economy in general and preparing secondary school's pupils for the world of work in particular are remarkable. Their views indicate awareness about the necessity of links between education and the economy and positive attitudes to correct this process. But it seems because of the country's major socio-political problems and challenges, international tensions mostly with western countries, economic sanctions and other internal crises; they have been unable to reform the educational system effectively. Introducing the Education Acts 1991 after several years of study and comparing international systems therefore means that the government has given education a top priority.

In order to reform the country's educational system two aims were considered necessary: conformity with the economic policies and consideration to the social needs for education. These two aims forced officials to focus on a model of secondary education with the preparation of young people for the world of work as its central aim. They have realised that the current secondary education which prepares students for higher education, ignores technical and vocational education, lacks an effective relationship with the labour

market, is controlled centrally and neglects local and regional requirements, cannot respond to the needs of the economy and society in modern age of Iran. Thus in order to improve these weaknesses and based on other countries' experiences such as Germany, Australia, Japan, and England the government introduced a new system for secondary education. In this system more attention has been given to technical and vocational education and has tried to counterbalance practical and academic courses at this level. Although officials were initially optimistic with the outcomes of the recent reforms, but the effectiveness of these attempts has increasingly been criticized.

Note

The officially announced rate for unemployment in the country in 2004 was 14 percent which is based on only registered individuals in social security centres but this can not be trusted simply because of political motivation for denying the facts. In Kurdish provinces such as Kurdistan, Kermanshah, and Elam this rate in the recent years has exceeded 30 percent which was the direct result of his central government reluctance to invest and develop basic socio-economic foundations. According to Human Development Report of Iran in 2007 Kurdistan and Sistan and Baluchestan had the worst conditions in HDI, GDI, GEM, and HPI compare with other privileged provinces (UN, 2007).

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