Post Basic Education Reforms in Oman: A Case Study

Salha A. Issan, Nariman M. M. Gomaa
Faculty of Education, Sultan Qaboos University, Oman

Abstract

The present paper aims to analyze the reforms taking place in Post-Basic Education in the Sultanate of Oman and to highlight the successes and constraints acting upon- and within the school system.Oman has had a non-formal educational system throughout its history. Since 1970, one can recognize three stages in the development of education in Oman: stage one, emphasized the rapid quantitative development of education; stage two, started in the 1980s, when the Ministry of Education initiated serious efforts to improve the quality of education; and stage three, started in 1995, after the declaration of 'Vision of Oman's economy 2020'. A Strategic plan has been initiated in 2001 to ensure that students will be adequately prepared for the requirements of higher education and the labour market through restructuring secondary education. An Operational plan has been implemented in Post-Basic education in 2007 to improve the quality of education provided for Omani Generations. This paper focuses on answering the following questions: what are the main challenges behind the reforms of the education system in Oman? What are the reforms introduced in post-basic education (11-12) grades schools? What are the obstacles facing the implementation? And what are the suggestions to reform them?

1. Introduction

The Sultanate of Oman as an Arab country, shares not only its boundaries with the Gulf region, but also its history, culture and tradition with the Arab world. As an open and oil-based economy, the development of liquefied natural gas (LNG), public investment in the infrastructure and growing diversification of the economy has helped in moderating the dependence on oil. This kind of economic structure demands diversified skills and competencies that satisfy the needs of the emerging economy. Therefore, Education reforms have become a priority in developing the educational system in the Sultanate of Oman since the declaration of 'Vision of Oman's economy 2020' which considers education as a path way and turning point for desirable sustainable development. The challenges of globalization, information technology, sustainable economic transformation, expansion of global Knowledge, and the development of human skills are becoming essential prerequisites for Omani society's progress. Throughout the present study, the following main questions will be addressed: First, what are the main challenges behind the reform of the education system in Oman? Second, what are the models of reforming secondary education in the area of the school curriculum, school management and evaluation system from the literature point of view? Third, what is the current situation of reforms in Post Basic education (11–12) grades? And finally, what are the constraints facing the school system and what are the suggested measures to resolve them?

2. Challenges

Ensuring universal access to education for all Omani citizens and provide them with lifelong skills are the main features of the educational reforms in Oman. There is an intention of moving towards the new modern society.

Oman, as any other country in the Middle East, is confronted with many challenges one of which is Globalization, seen by many researchers as having a very strong impact on education in general. There are an enormous number of studies that discuss the impact of globalization on education [1]. Globalization whether it is economic or technological has a positive influence on the society as a whole [2]. It creates values and norms, as well as it develops a mutual support and benefit to produce synergy for development of countries and communities [3].

The weights of globalization vary across and within countries and institutions so that the responses to it also fluctuate as Carnoy and Rhoten (2003) stated: "know how globalization and its ideological packaging affect the overall delivery of schooling, from transnational paradigms to national policies to local practices" [4].

Globalization and technological changes have made human capital development increasingly important for a nation's economic progress [5]. In the case of Oman, it provides a real empirical challenge as much as it

presents a theoretical frame for reforming education. As a result, the Omani society as one of the international communities is facing the following:

- Economic globalization places an emphasis on the creation of a skilled labour force and educational policy makers ought to be responsive to business needs through the educational system.
- Technological globalization reflected on the continuous demands for highly skillful human resources, which tie-in with changing demands of the Omani Labour market.

Advancement of knowledge and economic changes seen as challenges, have an impact on educational reforms in many parts of the world. Dearing (2001) pointed out: "It is already widely accepted that the rapid pace of advance in knowledge, and pace of economic change, will require us to update our knowledge and skills" [6].

The 2003 Arab Human Development Report, which carries the subtitle 'Building a Knowledge Society', mentions lack of knowledge capital as the main long-term problem faced by the Arab world and calls declining quality the most important challenge faced by Arab education [7]. Labour markets around the world are going beyond countries' borders, calling for individuals to have specific technology-based skills. However, recent studies found that those educated in the Arab region are ill prepared to enter the world of work in a global economy. MENA Report highlighted that despite remarkable improvements in expanding access and closing gender disparity at the primary education level in the Middle East and North Africa, including Oman, adult literacy is still low and education systems do not produce the skills needed in an increasingly competitive world. Unemployment is particularly high among graduates, and a large segment of the educated labour force is employed by governments. As a consequence, the link between education and economic growth, income distribution, and poverty reduction is still weak [8].

The case does not apply to the Arab world only. In Singapore as an example, Green, et al, reveal that as the economy converged on OECD levels, it was found that many workers were lacking basic skills, and hence they were at risk as the economy moved to the frontiers of technology [9].

Malaysia is another example to recognize the needs of reform and generate knowledge workers for the 21st century to advance into the knowledge economy era "Knowledge workers are essential for the country to make investments in technology which will contribute to sustainable growth. Malaysian education must engender knowledge and technology in every facet of its education system" [10]

Oman's economic policy draws on a series of five-year development plans that set objectives for all government sectors and non-governmental bodies. By 1995, Oman had completed four five-year development plans. "Vision Oman 2020" outlines proposals for the Sultanate's development over twenty-five years to 2020. It takes into account the far-reaching changes in the world economy and the revolution of IT that has transformed the global system of production [11]. The realization of the impact of the challenges on Oman led the government attach particular value to education in general and embark on reforming the entire educational system since the 1980s until now. These reforms are emphasized in all plans.

It's worthy to mention that Oman has completed six five-year development plans and the seventh is in progress.

3. Theoretical background of educational reform

Educational reform has many purposes on people's lives along with the economic and technological one, it has a moral one which is to make a difference in the lives of students regardless of their backgrounds and help produce citizens who can live and work productively in increasingly dynamically complex societies [12].

Oliver (1996) expresses his view of reform in education, by indicating that changes must involve the establishment of new targets and strategies. A change is not about the creation of new policies and procedures, but it is important that many parties should be involved such as students, teachers, administrators, parents and employers [13].

Reforms to be most effective, Gonzalez and others (2008) stated that policy evaluation must become an essential component of the process of change, so that initiatives can be refined and improved based on measured effects. With evaluation also comes the potential to minimize unintended consequences and identify barriers to successful implementation. Moreover, the extensive range of reforms under way throughout the Arab world offers a tremendous opportunity to learn from the cross-country experimentation and to build a knowledge base of lessons learned and strategies that can be transferred from one country to another [14].

Future education reforms need to be guided by a new approach or framework. The proposed framework in MENA report [15] is based on three elements: good Engineering, Incentives aligned with outcomes, and greater Public Accountability measures to give citizens voice. All three elements of reform are critical, and the presumption is that, if policy makers focus too much on one element and neglect the others, future education reforms are not likely to produce the desired level, quality, and mix of educational outcomes. Engineering

reforms emphasize measures to increase the quantity and improve the quality of inputs of the education systems. These inputs include physical recourses, curriculum and teaching. Incentive reforms are intended to address the above behaviour problem and deal with the motivation of the actors – both, service providers and clients - involved in the education process. These cover evaluation/monitoring, motivation/rewards, and information/markets. Public accountability reforms focus on the ability of parents, students, and other stakeholders to influence the formation of education objectives, policies, and resource allocation, either at the national or local levels. These include voices at the national and local levels. The premise is that, if the majority of the beneficiaries can persuade policy makers to improve education policies, education outcomes will improve.

Reform programs in education in the developing countries have exhibited a modest shift in focus from engineering toward incentives. It has been relied heavily on the engineering perspective to improve equitable and efficient access to education and to build national identity. Oman represents a good example of the Engineering and Incentives aligned with outcomes. 'The engineering of everything in the educational system in the S. of Oman is identified as:

- The reestablishing of the new aims and a national vision for education;
- The expansion and restructuring of the education system;
- The search for effective schools and quality education.
- The assurance of education standards and quality education;
- Quality and encouraging of competition to promote excellence;
- The privatization and diversification of education;
- The shift to decentralization and school-based management towards effective schooling;
- The emphasis on the use of development planning and strategic management; parental and community involvement in school education;
- The integration of information technology in learning and teaching;
- The development of new curricula and methods of learning and teaching;
- The changes in examination and evaluation practices;
- The enhancement of teacher quality;
- The need for continuous professional development for teachers and principals and other school staff members.

4. Models generating reform framework in the Sultanate of Oman

The Omani Government, since the 1990s, made substantial efforts to improve the quality of education when the engineering reform was implemented. This meant restructuring the whole system and redefining the government's role as proactive, directing all its sources towards quality objectives.

Recent education reforms in Oman illustrate the very commendable efforts undertaken in building an education system to meet people's need, and to ensure its constant development. Numerous other improvements have taken place i.e. the structure of the school system, curriculum and textbook development, and student assessment, indicating the significant efforts and investment that the government has initiated.

The reform for secondary education has been thought of, and by 2000 after the implementation of the first phase of reforming primary education and replacing it with basic education, the ministry undertook to plan for the second phase to synchronize with the new system.

The secondary school reform plan began with organizing mini-workshops, seminars, and conferences, to discuss the issue of reforming the system. In addition, a group of consultants were invited to prepare a consultancy study for the Ministry of Education [16]. The consultancy study provided the decision makers with three models that present elements in the development of the curriculum and instructional objectives process (MOE, 2003). These models are: the Multiple Path Learning Centre Model (MPLC), where competency-based mastery learning is applied. The Essential Skills Learning Centre Model (ESLC), based on business communication and applied in the developed world; and The Guided Independent Learning Centre Model (GILC), adopted from pilot schools around the world, and designed to equip students to become lifelong learners, offering generic learning skills and so preparing students for their career.

The consultancy study considered the following elements in the three models: Assigning needs of trainees, employment, and society; setting performance objectives in the three domains, knowledge, skills and attitudes; identifying content of common core, programmed specific and optional; determining teaching and learning methods as didactic, participatory and mediated; designing and selecting teaching and learning resources such as print, audio-visual and computer-based; shaping the teaching and learning situation by divine learning environments, roles of teachers, students and others who might be involved in the process; assessing learning outcomes by implementing formative or summative evaluation, evaluation by teachers, student and peers and criterion as reference. The final element is based on how to

evaluate programs, the choice between the implementation of inspection or accreditation growth plan [17].

For the purpose of the present study, the authors chose to highlight three elements: curricula organization, the evaluation system and the school administration in the three models. This will be clarified as follows:

4.1. Curricula organization

The study had introduced three models in terms of curricula organization, the changes brought by the information and knowledge-intensive society and the demand for the development of employability skills and universal competencies.

Firstly, in the MPLC model curriculum is designed to prepare students for university, college and institute or for work by providing academic courses in addition to practical courses offered as options to prepare them for the world of work. The content of each course is spelled out in terms of behavioural objectives, and students finish each course when they have satisfied the stated criteria, or require a level of mastery.

Secondly, the ESLC model based on learner–centered methodology where students carry responsibility for their own learning with the teacher acting as supervisor and guiding counsel. Foundation of general education and generic skill development is rigorously applied before joining the world of work. Academic subjects are offered, intentional teaching and learning essential skills, which will be required by all working people, in addition to the specific work/ professional/ technical skills that are unique to different occupations.

Thirdly, the GILC model is organized on subject matter tailored to fit individual needs and interests. The GILC promotes greater flexibility in applying curriculum content and this controlled flexibility allows students to pursue individual interests and still satisfy the requirements of the curricula.

4.2. Evaluation system

Three forms of assessment were introduced by the consultancy study. Each model followed preferred forms of student assessment. The Assessment process of a MPLC model should examine the essential skills. According to the study, these are: critical and creative thinking; problem-solving; independent learning; innovation; technological literacy; communication and interpersonal skills; and understanding personal and social values [18].

The second model, ESLC, applies the processes of assessing the development of essential skills i.e.: critical thinking; problem-solving; creativity; independent learning; innovation; and communication. Assessment of outcomes-based learning should be based on the mastery of competencies. The consultancy study suggested that the assessment strategies should be utilized for both models, the MPLC and the ESLC. The formative (developmental) and summative (conclusive) should be objective, criterion referenced and a variety of strategies be used, including written tests; verbal tests; performance tests; self-assessment; peer assessment; and portfolios and skill books.

The third model, GILC, utilizes the following strategies: self-evaluation; peer evaluation; tests set, marked and recorded by computers; performance tests. Teachers should assess their students' performance in accordance with the criteria specified in the relevant Student Assessment Document [19].

4.3. School Administration

The move towards decentralization or school-based management (SBM) became the centerpiece for educational reform in many parts of the world. As Caldwell and Spinks (1992) point out that the policy of SBM reflects a repositioning of power from the central administration to the school level in relation to curriculum, budget and resource allocation, staff and students, and in some instances, assessment [20]. The key to success as Wohlstetter et al (1994) mentioned involve also the development of knowledge and skills (know–how) and the acquisition and examination of information (action inquiry) [21].

In case of Oman, the consultancy study did not propose guidelines for school administration, though the reform models required the adoption of a decentralized approach and apply school-based management to implement the curricula organisation and the evaluation system.

5. The New Education Reforms in the Sultanate of Oman

The new educational reforms were planned and implemented after 1995, particularly after 1998 when a basic education system was introduced. Important aspects had crystallized the new reforms i.e. improved MoE. structure and procedures; changes in the structure of the school system; changes in curriculum content and textbook development; changes in student assessment; improved teacher training; encouraging the private sector to enter the education field, and others [22].

The MoE. implements the national policy by forming strategies, educational objectives, tactical planning and projects. **The school structure system** witnessed some changes, away from 6-3-3 levels

respectively to a unified ten-year system of compulsory Basic Education (BE) for pupils 6-17 years old. It is divided into two cycles i.e. cycle one (grade 1-4) and cycle two (grade 5-10), followed by 2 years of the Post-Basic education (Grades 11-12) or vocational training.

In terms of administration, the general policy in Oman is based on the centralization approach, but to meet the challenges facing the country, the decentralization approach has been adopted on a small scale at the local level. The Ministry of Education for example has delegated responsibility for school management to the local educational administrative bodies and school staff [23].

5.1. Grounds and reasons for educational reform

- The structure of the education system prior to the reform was 6-3-3, the latter being secondary education. After completing grade 12 of General education, it was found in 2003 that well over half of those students (about 20,000), did not have access to universities, higher education or any other further education institutions [24].
- The outcomes of the previous system failed to equip students with the proper skills for the various ranges of careers. As job seekers, they found themselves being employed in semi skills jobs with low income. Therefore, programs to prepare for life after school whether in the line of the university or further education or for entry into the labor market, was considered an essential goal.
- Choices within the curriculum in the old system were not on offer for students to satisfy their needs, abilities, aspirations and future ambitions.
- The curriculum at the secondary education level of the previous system was inappropriate for the graduates of the new system of basic education (10-12). The MoE. carried out qualitative measures within the framework of the basic education reform program (grades 1-10). It covered many qualitative improvements, redesigning the whole curricula, introducing new subjects such as Life skills and Educational technology, teaching English Language from grade one, increasing emphasis on teaching mathematics and sciences, increasing the lengths of the school day and year, as well as improving the student's assessment system.
- The new requirements for admission to higher education are based on quality of students' high performance achievement at secondary education.
- The quality of the secondary education systems in Oman is not yet up to international standards. Secondary school graduates are considered unprepared to directly enter the labor market with relevant skills or to enter competitive university programs.

Oman's education today has four basic general goals. These are [25]:

- to give every Omani child at least ten years of basic education;
- to ensure that the educational system produces sufficient trained Omanis to meet skilled manpower requirement;
- to give equal opportunity for both males and females to be educated;
- to instill Omani values and national pride through the "Omanization" programs.

5.2. Nature of Post–Basic Education: The new model

As mentioned before, post-basic education is a bridge between the basic education stage and higher education and preparation for the world of work and lifelong learning. Certain elements of the above referenced models were adopted to form a new model. The new system is called "Post-Basic Education", defined as a two-year programme of education following 10 years of basic education. The programme is designed to continue the development of basic skills for employment and career planning.

The MoE. underlined the general characteristics of the programme for 11 and 12 grades as follows [26].

1. Adoption of internationally recognized curriculum and assessment standards based on learner outcomes and authentic assessment of student performance.
2. Student –centered activity based learning activities that allow students to develop.
3. Understanding and problem-solving abilities which can be applied in a variety of real life situation.
4. An emphasis on the development of individual differences and special talents.
5. A core programme that emphasizes the development of employability skills and universal competencies.
6. Flexibility that permits the ministry, educational regions or even schools to adapt to changing needs of the community in terms of grade 12 skills.

In order to achieve the aims of education in Oman, the MoE (2008) stated the general Objectives of Post–Basic education as follows [27]. The authors highlight the most relevant objectives to the reform:

1. Gain an understanding of international trends in different aspects of life and make use of the experience of other nations within the frame work of Islamic values.
2. Develop different types of problem-solving thinking and abilities, as well as employ scientific

thought in practical real-life situations and arrive at relevant decisions.

3. Form positive attitudes toward all types of productive and voluntary work and instill positive attitudes towards saving and caring for public property.
4. Use in an effective way the skills of independent and continuous learning in carrying out research, and benefit from information technology in a way that helps the cultural, scientific and professional development of the learner.
5. Acquire the ability to interact peacefully with others and to contribute positively to social life based on a sound knowledge of social rights and a full awareness of duties and responsibilities.
6. Develop public awareness in health, population and environmental issues and create positive attitudes towards the environment and appreciation of aesthetic and artistic values and skills.

The programme addresses the needs of all students and their diversity by inclusion of a range of courses to satisfy such needs. The programme allows the opportunity for choice. It is likely that many students entering Post-Basic education will be undecided on what career path they wish to pursue. As a result, a more flexible range of courses has been developed so that students explore differing aspirations prior to making a commitment to a particular graduation strand or occupational target. The programme promotes the principle of individual learning in order to meet the needs of all students.

The structure of the programme is based on the following assumptions [28].

a- Students enter Post-Basic education with different backgrounds and abilities in each subject.
b- The skills and knowledge required by students leaving schools after Post Basic education are different depending on their future plans.
c- There are different criteria against which students should be assessed depending on their instruction in terms of future education and employment.
d- The prerequisite needs of further education are different from those required for immediate employment or entrepreneurial endeavours. Those needs are specified and require the availability of specific courses.

5.3. Curricula organization

Changes in curriculum content and textbook have been one of the most important aspects of the new reform. Two issues were given particular attention, first, the content of the curricula, and second, the teaching methods. Regarding the latter, teachers were advised to refrain from basing their teaching and assessment on rote learning and memorization. Work shops and other means of training were held to train teachers to apply learning through experience away from a Teacher-Centered approach. The MoE. fostered the application of the Child-Centered approach, and adopted the new curricula.

Regarding the content of the curricula, consideration was given to: areas of knowledge taught to students in developed countries and relevance to the culture and other conditions of Omani society as well as to the age, background and level of thinking of the learners [29]. Because of the great increase in the number of hours during ten years of basic education (3,907 additional hours), the possibility was created for strengthening science courses (including mathematics) and English language courses. Information technology (120 hrs) and computer skills were also added (264 hrs). The implementation in the curriculum shows that the Omani educational authority is quite conscious of the implications for Oman and of the globalization process underway [30].

One aspect of recent curricular reform has been the introduction of environmental life skills, as mentioned before, in order to link school learning with the student's local environment characteristics and needs. Fields such as geography, health, ecology, nutrition, traditional culture and craft, family life, citizenship and many other subjects related to the knowledge requirements of each age group are introduced. Ensuring the transfer of skills and knowledge into the students' practical world has been the main focus of the environmental life skills programme and textbooks.

Students are required to choose courses in both, grade 11 and 12. These courses provide students with the basic skills needed, in communication-, numeracy-, information and technology-, problem–solving-, and personal and interpersonal skills. These skills are elaborated in detail to allow a better understanding of the implementation within different courses offered.

All students are required to study research methodology and complete a project during the two years. This course will develop the problem-solving skills and allow them to apply previous learning in the area of students' interests.

Table 1 illustrates the courses offered to students coming from Basic Education schools in September 2007 [31]. A total of 32 periods were allocated for the compulsory courses, as well as a group of optional courses for students to choose two out of them. In September 2008, there were some changes in courses offered for students coming from Basic Education schools. On alternative weeks, one period is allocated

for the project 'Research Methodology' and the other for 'Career Guidance'. In 2008/09, the course 'Introduction of Technology Information' was introduced as an optional for grade 11 (group B). It gave students a wider choice from the optional courses (3). Those who selected Science and Technology at grade 11, have to choose Science & Environment at grade 12. Students in grade 12 should study the same science, mathematic and English Language courses they studied in grade 11.

Table 1. Post-basic-education teaching plan

NO	11 2007/8 Grp (A)	11 2008/09 Grp (B)	12 2008/09 Grp (A)	12 2009/10 Grp (B)
Compulsory courses				
1	Islamic Culture			
	2	2	2	2
2	Arabic			
	6	6	6	6
3	English (A or B)			
	6	6	6	6
4	Mathematics (Applied or Pure)			
	5	5	5	5
5	Sciences: (Chemistry, Physics, Biology, Science & Technology and Science and Environment			
	4	4	4	4
6	Social Studies			
	2	2	2	2
7	Life Skills			
	2	2	2	2
8	Research Methodology/ Career Guidance**			
	1	1	1	1
9	Introduction of Information Technology			
	4		-	
Total Periods				
	32	28	28	28
Optional courses				
1	English Language Skills			Each student chose two courses in 2007/08 From 2008/09 they should choose three courses
2	Biology			
3	Physics			
4	Chemistry			
5	Computer Business/ Communicant's			
6	Economic Geography			
7	Geography & Modern technology			
8	History (Islamic Civilization)			
9	History (The World Around Me)			
10	School Physical Education			
11	Computer Science			
12	Graphic Design			
13	Artistic Skills			
14	Musical Skills			
Total				
	8	12	12	12
Total Periods/wk				
	40	40	40	40

With regard to textbook development, according to the Oman profile and the new educational reforms, the MoE., through experts and specialists emphasises the tasks of revising, modernizing, and developing the content and all relevant elements of the programme. [32].

5.4. Evaluation system

Authentic assessments are used in all schools of the Sultanate. Teachers should assess their students' performance in accordance with the criteria specified in the relevant Student Assessment Document [33].
The assessment model adopted will assess the development of basic skills of Post-Basic Education, which are: communication-, innumeracy-, information and technology-, problem-solving-; personal and interpersonal skills. Evaluation of methods of teaching and teacher performance is part of evaluating the whole school within the implementation of Developing School Performance System. Through the implementation of the system, self evaluation of the school performance by an internal committee, and external evaluators, the school performance will develop (MOE, 2009).

5.5. School Administration

As was mentioned before, the MoE. has adopted the decentralization approach and moved to implement School-Basic Education System by issuing a ministerial decree No. 19/2006. The implementation of school based management in Oman follows theoretical principles. These are: enhancement of school based planning; supervision of and follow up teaching and learning; student care; strengthening relationship between parents, local community and its organization; self-management and development of organization values. Accordingly, a Developing School Performance System has been initiated. It includes three projects: evaluating and developing school performance; master teacher, as school-based supervisor; and comprehensive professional development. By 2009 a new ministerial decree No. 21/2009 was issued, and full implementation of school-based management has to be carried out by all schools in all governorates. The main features of implementing the system lie on giving the schools the power of several issues such as, administrative and financial; student's affairs; exams; activities; projects; maintenance; services and educational supervision [34].

6. Conclusion

The reforms got under way only recently, so it may be too early to measure their impact. We conclude by

highlighting what will be gained by making policy evaluation an integral part of the reform process, including the benefits that will accrue in the form of lessons learned and knowledge gained from the extensive changes under way.

It is also too soon to make an accurate evaluation of the degree to which changes in curriculum content have responded to expectations. There is no doubt that some of the proposed changes correspond to the best practices in the developed countries such as making students the centre of education, encouraging them to investigate, find answers to questions themselves, promulgating experiential learning, work in co-operative groups, and inviting students to express their views and engage in participatory learning. It is legitimate to ask how successful teachers and administrators have been in introducing these recommended practices. One can say that teachers are not well prepared and trained to implement the new programme.

Constrains and obstacles facing the implementation of the reforms still lie ahead since the majority of Omani job-seekers are secondary school leavers. Most of them have no professional or vocational qualification, which prevents their integration into the labour market or, positions or jobs offered may prove to be unsuited to the competencies of individuals, and some positions and jobs may require skills, competencies, or specific knowledge that the applicants do not possess [35]. Additionally, seeking the academic route is still predominant by the majority [36].

The new vocational courses are still theory based. Furthermore, the school buildings and facilities such as labs, workshops, are not well developed to cope with the new demand of implementation. The school plan, until now, is spent within the school premises.

Educational reforms responded to computerization and access to the internet and all schools are equipped with computers and labs, but are teachers prepared to cope with the new technology and exchange knowledge? The majority are not aware of applying strategies of teaching and learning vocational skills. The in-service training applied was designed for short periods known as 'hit and run', with no time for application. Strengthening, collaboration, and partnership between the MoE. and labour sectors and the expansion of technical–vocational education could be a solution.

As the reforms have not been fully implemented and the old system and the new one (basic education) are co-existing, an overall summative evaluation is left to the future. The evaluation work that is being done now relates more to the implementation process (formative evaluation) than to the whole philosophy of the reform.

The concepts and principles of school-based management are strictly implemented and they concentrate on execution of rules and regulations approved by the MoE. As a result, school administrations as well as teachers have a limited role in decision making concerning curriculum, evaluation, and other aspects relating to post-Basic Education reform.

To face such obstacles, the application of the applied courses needs to be fully implemented in a real world. Therefore, the principle of partnership and the application of working experience outside the school should be introduced. Full implementation of school-based management is essential in managing change and development of curriculum, evaluation, and in-service training for teachers.

Understanding accountability measures and applying quality indicators throughout the reforms are very important issues. Establishment of measurement and criteria can improve implementation, and increase students' achievement. Finally, partnership and effective engagement with economic sectors plays an essential role in the success of the Post-Basic Education system.

To conclude, Oman in many of its declared strategies is entering the global economy, to achieve these strategies, Oman needs to transform itself into an innovative economy in which competitiveness is no longer based on hiring unskilled lobour with low wages to continue to prosper in the decades ahead. Post- secondary education should continue to emphasise the developing of individual needs through curriculum where science and technology are integrated. Oman needs an education system where creativity, imagination, and economy knowledge are embodied in well educated knowledge workers who are the main source of national prosperity and welfare.

7. References

[1] See : Stromquist, N., *Education in a globalized world: The connectivity of economic power, technology and knowledge*, Rowman and Littlefield Publishers, Lanham, Maryland, 2002.
Dale, R. and Robertson, S. The varying effects of regional organizations as subjects of globalization of education, *Comparative education review*. Vol. 46 (1) 2002, pp. 10-36
Carney, S. Globalization, new-liberalism and limitations of school effectiveness research in developing countries: The case of Nepal, *Globalization, Societies and education*, Vol. 1(1), 2003, pp. 87-101.

[2] Panic, M., *Globalization and national economic welfare*, Palgrave, New York, 2003.

[3] Cheng, Y.C., Fostering local knowledge and human development in globalization of education, *International journal of educational management*, Vol. 18(1), 2004, pp 7-24.
http://www.emeraldinsight.com. Retrieved on 30/10/2009

[4] Carnoy, M. and Rhoten, D., What does globalization mean for educational change? A comparative approach, *Comparative Educational Review*, Vol. 46(1) 2002, pp.1-9.

[5] Korpi, Tomas and Tahlin, Michael, *The impact of globalization on men's labor market mobility in Sweden*, http://www2.sofi.su.se/mta/docs, retrieved on 01/11/09

[6] Dearing, R., The idea of the university in 21st century. Paper presented at *the university of the 21st century: An international conference*- 17-19 March, Muscat, 2001.

[7] United Nations Development Programme (UNDP), Arab Fund for economic and social development, *Arab Human Development Report 2003-Building a knowledge society*, NY: United Nations Publications, Jordan National Press, pp.51-53

[8] The International Bank for Reconstruction and Development, *The Road Not Traveled: Education Reform in the Middle East and North Africa- MENA development report*, World Bank Publication, Washington, DC, 2007.

[9] Green, F., Ashton, D., James,D. and Sung,J, The role of the State in skill formation: Evidence from the Republic of Korea, Singapore and Taiwan, *Oxford Review of economic policy*, Oxford University Press, Vol. 15, No. 1, pp. 86-92

[10] http://www.ibe.unesco.org/international/ICE/natrap/malaysia Retrieved on 03/01/2010

[11] The Ministry of Education, Education for All in the Sultanate of Oman 1970-2005: *A contribution to the Celebration on UNESCO's 60 Year Anniversary*, MoE, Muscat, 2006. Retrieved from http://www.moe.gov.om/portal/SiteBuilder/Sites/EPS/English/home.aspx .

[12] Fullan, M., *Change forces: Probing the depths of education and reform.* The Falmer Press, London, 1993.

[13] Oliver, P. *The concept of change management of educational change: A case-study approach.* Arena, England, 1996.

[14] Gonzalez, Gabriella | Karoly, Lynn A., et al (2008). *Facing Human Capital Challenges of the 21st Century- Education and Labor Market Initiatives in Lebanon, Oman, Qatar, and the United Arab Emirates*, Santa Monica: RAND Corporation

[15] The International Bank for Reconstruction and Development, op.cit.

[16] Ministry of Education, *Report from the consultancy study On the reform of years 11 and 12*, MoE, Sultanate of Oman, 2003.

[17] ibid.

[18] ibid.

[19] Ministry of Education, *Post-Basic Education Grades 11 and 12*, MoE, Sultanate of Oman, 2008.

[20] Caldwell, B. J. and Spinks, J. M., leading the self- managing school. The Falmer Press, London, 1992.

[21] Wohlstetter, P., Smyer, R., & Mohrman, S., New boundaries for school-based management: The high involvement model, *Educational evaluation and policy analysis*, 16, 1994. 268-286.

[22] The Ministry of National Economy, *The Seventh Five-Year Development Plan (2006-2010)*, Ministry of National Economy Publication, Sultanate of Oman, 2006.

[23] Ministry of Education, *National report on the development of education in the Sultanate of Oman*, MoE, S. of Oman, 2001.

[24] Ministry of Education, *From access to success: Education for all (EFA) in The Sultanate of Oman 1997-2005*, MoE, S. of Oman, 2006.

[25] Ministry of Education (2000)

[26] Ministry of Education, Post-Basic Education Grades 11 and 12, op. cit.

[27] Ibid.

[28] Ibid.

[29] Al-Belushi, S. ; Al-Adawi, S. & Al-Ketani, *Education reform in the Sultanate of Oman*, unpublished mimeograph, Ministry of Education, Muscat, 1999.

[30] Issan, A. The existing system of secondary education in Oman and its development according to modern trends and models implemented in the developing countries, *Journal of education*, Vol. 3(26) 2002, pp. 147-189.

[31] Ministry of Education, post-basic Education, op. cit.

[32] Rassekh, Shapour (). *Case Study on Gender-Sensitive Educational Policy and Practice in the Sultanate of Oman*: Ministry of Education, Oman, 2004.

[33] Ministry of Education, Post-Basic Education Grades 11 and 12, op. cit.

[34] The Ministry of Education, *Profile of Developing school performance system*, MoE, Sultanate of Oman, 2009.

[35] Rassekh, S., The challenges facing education and curriculum development at the beginning of the twenty-first century, in *The management of curriculum change and adaptation in the gulf region.* Shapur Rasseh and Geannine Thomas (eds) final report of the seminar held in Muscat, 17-21 February. IBE, Unesco, Geneva, 2001.

[36] Al Nuemi, S.S., *Developing secondary in Oman*, retrieved from http://reference.ksu.edu.sa/pdf,

