# Educational Reform in the Sultanate of Oman towards Achieving Qualitative Internal Efficiency of Basic Education Cycle 2 System

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 $\mathbf{B}\mathbf{y}$ 

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# Thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy

UNIVERSITI SAINS MALAYSIA

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#### This Thesis Is Dedicated

To

My ever loving parents

Whose prayers and love are always with me and whose devotion has transformed my dreams into reality

To

My affectionate and loving wife who has been the light of my life, my personal beacon that guides me towards the horizons of excellence which enabled me to complete this journey.

#### And to

Oman, the nation I will never betray. The nation that has given me a place to call my own. The nation I have lived, the nation I hope to die in. I hope to repay that nation with dedication and hard work.

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# LIST OF SYMBOLS USED

BEC 1	Basic Education Cycle 1 System (Grade 1-4)
BEC 2	Basic Education Cycle 2 System (Grade 5-10)
OST	Open System Theory
PTA	Parent Teachers Association
LRCs	Learning Resource Centres
GCSE	General Certificate of Secondary Education
MLA	Monitoring Learning Achievement of the Goal of Education for All
GCC	Arab Gulf Cooperation Council
MOE	Ministry of Oman Education

# Reformasi Pendidikan di Kesultanan Oman ke arah menghasilkan kecekapan kualitatif dalaman sistem Pendidikan Asas Tahap 2

#### **ABSTRAK**

Isu utama kajian ini berkisar tentang reformasi pendidikan dan bagaimana memimpin ke arah menghasilkan kecekapan terutama kecekapan dalaman sistem pendidikan Oman? Pelbagai usaha telah dilakukan serta pelaburan wang yang begitu banyak telah dilakukan untuk membuat reformasi sistem pendidikan sejak empat puluh tahun kebelakangan ini. Pelbagai input reformasi pendidikan seperti kewangan, aktiviti dan masa telah digunakan bagi memastikan kelestarian reformasi pendidikan tersebut hingga ke hari ini. Tetapi, persoalannya ialah apakah sumbangan input-input tersebut terhadap peningkatan keberkesanan dan kecekapan sistem pendidikan di Oman. Tujuan utama kajian ini ialah untuk meneliti reformasi pendidikan di Oman dengan memberi tumpuan kepada mengenal pasti kecekapan dalaman Dasar Pendidikan Kitaran 2 di Oman. Secara khususnya kajian ini bertujuan untuk meneliti secara sistematik reformasi Sistem Pendidikan di Oman dan mengkaji sama ada reformasi ini menghasilkan kecekapan dalaman dengan meneliti input proses dalaman. Kajian ini menggunakan kombinasi teknik kaedah penyelidikan kuantitatif dan kualitatif untuk mengumpul dan menganalisis data. Analisis soal selidik, kumpulan berfokus dan temu bual peribadi telah digunakan untuk mengumpul data kuantitatif dan kualitatif. Kerangka konseptual kajian pula didasarkan kepada saranan Lunenburg dan Ornstein (2000) yang berasaskan kepada Teori Sistem Terbuka. Hal ini dilakukan untuk memastikan kesahan dan kebolehpercayaan data yang dikumpul. Dapatan kajian menunjukkan bahawa pada dasarnya kelihatan seperti terdapat sejumlah besar input yang telah ditokok tambah dalam sistem pendidikan yang baru ini. Namun, kemasukan kemudahan fizikal seperti buku teks tempatan yang dihasilkan tidak semestinya menjadikannya sebagai bahan yang lebih baik bagi proses pengajaran pembelajaran. Kemudahan ICT yang disediakan sebagai satu usaha yang baik tetapi kemudahan ini harus pertingkatkan secara berterusan kerana teknologi ini mudah menjadi usang dengan pantas. Disamping itu, kemudahan internet juga harus dibekalkan bersamasama dengan kemudahan ICT yang lain bagi memudahkan kegunaan pengajaran dan pembelajaran. Kurikulum baru yang diamalkan pula didapati baik dan selari dengan tuntutan global tetapi tidak mengikut keperluan dan kemampuan pelajar dan guru.

Justeru, dalam situasi seperti ini guru perlu diberi latihan semula untuk melaksanakan kurikulum baru tersebut. Hal ini sangat penting bagi pembuat dasar untuk menyedari bahawa guru dan pelajar perlu selesa dengan sistem penilajan baru bagi mengelakkan kebimbangan dan tekanan dalam kalangan mereka. Subjek baru dalam kurikulum ini juga tidak harus ditambah tanpa mengkaji pandangan golongan ini kerana perkara ini boleh menyebabkan pertambahan beban kerja dan tekanan dalam kalangan pelajar. Pengurangan saiz kelas merupakan langkah yang baik, namun hal ini nampaknya tidak menghasilkan pendekatan baru dalam pengajaran pembelajaran. Pengenalan coeducation ini selaras dengan dunia barat tetapi tidak begitu menjadi dalam budaya tempatan Omani. Setelah analisis secara komprehensif dilakukan mendapati bahawa input yang sangat baik tidak mengakibatkan output yang tinggi terutamanya dalam aspek intangible output. Kajian ini juga turut mendapati bahawa komponen-komponen individu (input, proses dan output) kurang diselaraskan dengan harmoni antara satu sama lain. Manakala komponen proses pula tidak saling menyokong antara satu sama lain malah ada ketikanya komponen-komponen ini bertindak secara berlawanan. Ringkasnya, terdapat tanda-tanda yang menunjukkan bahawa tahap kecekapan dalaman masih sangat rendah. Namun, perkara yang baiknya ialah untuk menjadi lebih baik jika kekurangan dalam input dan sistem pemprosesan diberi pertimbangan. Ketika ini reformasi yang telah mendorong dalam penghasilan kecekapan termasuk kecekapan dalaman, tetapi kelajuan gerakan dalam usaha menghasilkan kecekapan dalaman masih agak lambat.

# Educational Reform in the Sultanate of Oman towards Achieving Qualitative Internal Efficiency of Basic Education Cycle 2 System

#### **ABSTRACT**

The main issue of this study was on the educational reform and how it was leading towards efficiency particularly internal efficiency of the Omani education system. Much has been done by so many people and a lot of money has been spent to reform the system over last forty years. These inputs of educational reform (finance, activities and time) have accumulated over time to serve the present system. However, the question was whether accumulated inputs contributed towards the effectiveness and efficiency of the system. The main objectives of this study were to examine the educational reform in Oman with a view towards identifying internal efficiency of the Basic Education Cycle 2 in the Sultanate of Oman. Specifically it investigated the educational reform in the Omani Educational System and examined whether this reform could lead to internal efficiency of the system by systematically examining the internal processing of the inputs. The study employed a combination of quantitative and qualitative method research techniques to gather and analyzed data. Questionnaire analysis, focus group and personal interviews were used to collect numerical and qualitative data. The conceptual framework was based on Lunenburg and Ornstein's (2000) proposal, which in turn came from the Open Systems Theory. This framework led to the research design of the study. This was done to ensure the reliability and validity of the data gathered. The study and data collection were focused around the Educational Reform in Oman and how the movement affected inputs and outputs of the education system and its Internal Processing System. The study found out that on the surface it looked like a tremendous amount of quality inputs were put in place in the new system. However the input of physical facilities such as locally produced textbooks do not necessarily make them better materials, computer facilities are good but they need constant upgrading as they become obsolete rather quickly and internet facilities and connections must also be included. A new curriculum that is in line with global trends was good but it was not based on needs and ability of students and teachers. Nonetheless in situation such as this we would have expected practicing teachers to be retrained to implement the new curriculum. It was important for the policy makers to realize that teachers and students must be comfortable with the new assessment system to avoid anxiety and stress among them. New subjects must not be added indiscriminately because it could lead to

overload and more stress among students. Reduction of class size was a good move; however it did not lead to new approaches. The introduction of co-education was in line with western world but did not go down well with the local culture. After detail analysis was conducted it was found that excellent inputs do not result in quality output especially in the intangible outputs. This study found that the individual components (input, process and output) lack synchronization and harmonization and the constituents of the process components are not working for each other and sometimes work against each other. In short there were signs to suggest that the level of internal efficiency were still could be more improved. The good news was it has the potential to perform better if the shortfalls in the input and processing systems were given due consideration. Currently the reforms being made were pushing for efficiency including internal efficiency but the rate of movement towards gaining meaningful internal efficiency was rather slow.

# CHAPTER ONE INTRODUCTION

#### 1.0 INTRODUCTION

Education plays a vital role in the socio-economical development of a society. Its importance is crucial in a society that its absence cannot be afforded at any cost. This is because education is considered as one of the most basic fundamental pillar in any society. The main aims and objectives to promote and provide education in a society are to produce well disciplined and well balanced individuals who are ultimately able to contribute to the development and prosperity of the society.

The structure of the current society is changing rapidly, especially in aspects related to education. Education nowadays has embraced new techniques and approaches in order to meet the needs of the society. Relatively this has enabled education to become more important in the world in general. If a nation does not pay enough attention to the importance of education, it is as though it is planning to invite a suicidal situation that awaits a slow overwhelming disaster. It is a hard undeniable fact that education is a complex and highly specialized field and its efficient administration requires technical competence, administrative ability and understanding of the educational development in all fields (Khalid, 1998). Change is an indispensable ingredient for the educational system of any country. According to Stead (1983:143):

Changing trends in politico-socio-economic patterns of societies necessitate the importance to re-orientate or re-structure the patterns and styles of education consonant with the emerging needs and aspirations of ever changing societies. Education system requires to be reformed to adequately meet the larger needs of current trend, and the direction in which changes should be made in the development of self-helpfulness and the spirit of free inquiry based on individual observation and reasoning as opposed to the traditional style of the past.

Pertinent to this changing process, the concept of efficiency in education has become one of the most important drivers of the global competition today. Efficiency of education is a vital milestone in the development of the future of any modern society and has proved to be a vital factor in the progress of any nation. It is to coherently meet the needs of students, community and the school and must be on a sustainable basis to determine the efficiency of education (Yousif, 1984).

The world of education emphasizes the need to achieve education for all by ensuring the efficiency of education. An efficient education system can in reality, provide all students and young people with a comprehensive education to prepare them to live in the society, workplace and private life. Efficiency of education transcends continents, race, languages, and traditions. Efficiency of education leads to the creation of knowledge, essential to the successful management of the 21st century organizations. Therefore it is important to note that the support for quality education must come from all parties in the district in order to attain success (Mahlek, 1991; Reavis & Griffith, 1992).

It is no secret that quality management in education is a complex process. There are a large number of parties involved due to the intensifying changes of modern life. Human relation factors regarding students and staff were emphasized in the leadership element in which an open, critical, and caring attitude towards the needs of students must be an inherent part of it (Owlia & Aspinwall, 1997). Seymour (1991) has identified other benefits at the administrative level for the application of quality in education such as increasing attention from teachers to students, increasing efficiency and showing greater respect for the decisions taken.

From this consideration, the concept of internal efficiency in the educational system which means finding the best return on education and achieving high quality of education within the system can help by providing an integrative theoretical framework that makes sense for improvement of educational initiatives (Leddick, 1994). Therefore, in order to achieve greater quality and efficiency in education, the quality in the collective educational areas and the internal and external returns in education must be improved.

The Sultanate of Oman is a young nation struggling to keep up with changes in the global educational system. It has seen numerous changes and reform in its own system of education and these reforms are to ensure that the nation is not left behind. The most recent reform in its educational system is reflected in the Basic Education Cycle 1 and 2 of its system of education. This study is about educational reform and its effects on the internal efficiency of Cycle 2 of that system.

#### 1.1 RESEARCH BACKGROUND

In 1970, there were only three schools in Oman, with 30 teachers and just over 900 pupils. Education was once confined to the governorates of Muscat and Dhofar in the 1970's, but has since been expanded nationwide. In the 70s and 80s, the general education system expanded rapidly (see Table 1.1). By 1990/91, the education system has attained a substantial 90% gross enrolment rate for the primary cycle (Grades 1-6) and 83% for the preparatory cycle. Hence in light of the framework of the Jomtien Declaration of *Education For All*, the Sultanate of Oman recommitted itself to addressing the parallel issues of adult literacy, education of the handicapped, pre-school education, gender and regional equity with regard to quality and access, along with the issues related to the quality and efficiency

of the education system (Ministry of Education & UNICEF Muscat, 1999). The Ministry has made comprehensive plans for the modernization of the education system by increasing the number of schools to meet the needs of the twenty-first century. Table 1.1 illustrates the increase in the number of schools in Oman and Table 1.2 explains the General Education School System in Oman from 1970 to 2007.

Table 1.1: The Development in the Number of the Schools in Oman

Academic Year	1970/1971	1980/1981	1990/1991	2000/2001	2006/2007
Total of schools	16	363	779	993	1053

Table 1.2: The General Education School System in Oman (1970-1998)

Cycles in General Education	Type of Education	Grades	Grades	Ages		
Secondary Education	Science	Grade 11	Grade 12	16-18		
	Arts	Grade 11	Grade 12			
	Grade					
Preparatory		Grades 7–9				
Primary		]				

Today, there are over a thousand public schools in Oman. In 1998/1999, Oman introduced a new system of education, comprising Basic Education which spans a duration of over ten years and a continuation of another two years after the basic educational period. After completing these two tiers of educational period, successful students can enrol for further education at specialist colleges, or at the Sultan Qaboos University.

In Oman, the Ministry of Education has a comprehensive plan to modernize the country's educational system to meet the global challenges and the needs of the 21st Century. A major reform in the educational system started in the academic year of 1998-1999. The Ministry of Education in Oman introduced a new system called "basic education" in two phases. Under the 'Educational Development Project' of the Sultanate of Oman, the basic Education phase is spread over 10 years and a further two years of education after the basic phase. This system has gradually replaced the existing system of 6

years of primary, 3 years of preparatory and 3 years of secondary education. Under the new system, there will be greater emphasis on subjects like science, mathematics and the use of computers. English was also introduced from the first year of Basic Education. The Basic Education Cycle 1 adopted under the new system has been introduced gradually, starting with 17 schools from different districts. In the 1999/2000, more schools were introduced to the new system resulting in a total of 430 schools by the academic year of 2004/2005. The education ministry plans that the schools adopting this new system will progressively be equipped with new learning centres as well as new lab equipment (audio-visual, computer and other educational materials). This is to meet students basic education needs in terms of knowledge, skills, and values, enabling them to continue their education or training based on their interests, aptitude and dispositions, and prepare them to face the challenges of their present circumstances and future development in the context of a comprehensive social development (Ministry of Education-Oman, 2003; Ministry of Information - Oman, 2003).

Table 1.3 explained the distribution and growth in the number of schools and students of the Basic Education Cycle 2 from 2001/2002 – 2006/2007. The Basic Education Cycle 2 began in the academic year 2001/2002 with about 59 schools with an enrolment totalling approximately 6090 students as shown in Table 1.3. While in 2003/2004 the number of students has increased to a total of 139082 with about 131 schools. Currently in 2006/2007, this number has increased further to a total of 123276 students with about 253 schools, which reflected the rapid annual growth of the number of students annually in the Basic Education Cycle 2 in Oman because this cycle comprises 6 grades (5-10).

Level of education	1998/1999		2001/2002		2003/2004		2006/2007	
	No. student	No. school	No. student	No. school	No. student	No. school	No. student	No. school
Cycle 1 (1-4)	10000	21	88954	181	100452	221	126990	336
Cycle 2 (5-10)	-	-	6090	59	139082	131	123276	253
After Basic education (11-12) Start in 2007/2008	-	-	-	-	-	-	-	-

This development was accompanied by changes to the teaching/learning period from 32 weeks (160 school days) to 36 weeks (180 days) annually. This was generally aimed to bring it more in line with the hours of schooling in other countries. Class hours were increased from four to six hours per day and lesson periods were extended from 35 minutes to 40 minutes each with the purpose to increase pupils' curriculum content hours in the first 10 years of education from the present 5,693 hours to 9,600 hours (Ministry of Education & UNICEF Muscat, 1999).

Since the onset of the 90s, the Ministry of Education has been deeply concerned with the quality of education. The fourth five-year plan focused on issues such as improving the condition of school buildings by constructing new schools, providing schools with essential facilities, producing more Omani teachers and upgrading the level of education and the quality of teacher qualification (Ministry of Education & UNICEF Muscat, 1999).

In Basic Education the focus included the goals and philosophy of education, the structure of the basic educational system, curricula, textbooks and materials, the structure of teacher education programs, the structure of administration and management, school buildings and facilities, supervision and monitoring, assessment and evaluation,

hierarchical channels and means of communication, in-service training, staff development and capacity building (Ministry of Education & UNICEF Muscat, 1999).

The Ministry of Education was also responsible for the expenditure for general education Grades (1-6), Grades (7-9) and Grades (10-12) of the basic education Grades (1-10). Table 1.4 explains the development of the average cost to educate the students by type of education. Table 1.4 also shows the rise in expenditure of the basic education from general education (Ministry of Education, 2006/2007). The expenditure of the average cost to educate each student has also increased for all grades especially in the basic education Cycle 2 from RO 933 in year 2005 to RO 1079 year in 2007. This means that the Ministry of Education places greater importance in uplifting the internal efficiency of education in every aspect of development.

Table 1.4: Development of Average Cost Per Student by Type of Education & Actual Expenditure

Table 1:1. Development of Average Cost 1 cf Student by Type of Education & Actual Expenditure						
Academic Year	Basic Ed	ducation	General Education			
	Cycle 1	Cycle 2	Grades(1-6)	Grades(7-9)	Grades(10-12)	
2005	*RO 914	RO 933	RO 653	RO 675	RO 911	
2006	*RO 1046	RO 1068	RO 784	RO 799	RO 1043	
2007	*RO 1225	RO 1079	RO 1011	RO 1041	RO 1467	

<sup>\*</sup> Riyal Omani (RO)

In the Oman system of education, the pupils' process of promotion from one grade level to another is based upon their eligibility. This is dependent upon their fulfilment in meeting certain requirements with regards to the acquisition of a minimum level of knowledge, skills and competencies in the defined areas of curricular content and objectives. The successes or failure of the students should reflect the quality, efficiency and effectiveness of schooling, among others. Failures lead to increase in the total cost as well as the unit cost of education that consequently decrease the efficiency and adds to the

wastage in education. All these deficiencies must be addressed in order to achieve high quality and efficiency of education.

Presently in Oman the system of education is such that, students at Cycle 1 are given automatic promotion. This means that all students are promoted regardless of their educational achievement. Therefore, in Cycle 2, automatic promotion is non-existent. Thus all students must meet the minimum standard requirement for all subjects. All students must obtain a minimum of grade C for all subjects. Should a student fail to achieve the minimum, then he or she will be kept at the same level for another year. When students are not promoted it means that they have not achieved the minimum standards for all subjects. It also means that the system is not efficient. It is inefficient because more cost is incurred to educate the same students at the same level for another year. Why does this happen? Why are students not promoted? Why have they not achieved the minimum standards?

The extent to which pupils repeat grades perhaps suggest the level of internal efficiency of the particular school in the Omani educational system. Students repeating a grade occupy places and consume resources that could have been utilized by other students. Students repeating a grade once consume at least twice as many resources as their cohorts who are promoted to the next grade (Ministry of Education & UNICEF Muscat, 1999).

It is believed that there are flaws in the Omani system of education based on the student's repetition and dropout rates. The Ministry of Education in Oman recently took a bold step and launched a plan to reform its educational system in all aspects. This reform required the continued support from all parties in the educational network. In this regard,

the following recommendations were noted (Ministry of Education and UNICEF Muscat, 1999: 126):

- a. To improve the quality, content, efficiency and effectiveness of basic education so as to enable the education system to produce marketable quality graduates at reasonable costs.
- b. To enhance the relevance of basic education to the learning needs determined by the requirements of emerging labour markets.
- c. To support the phased expansion of the comprehensive educational reform currently under implementation.
- d. To improve the quality of the pre-service teacher education programme and the pre-service teacher/ supervisor/ administrator training programmes through emphasis on field practice and classroom application of innovative techniques.
- e. To reform pre-service teacher education, train more female teachers, and Omanize the teaching cadres.
- f. To eliminate double-shift schools.

The Ministry of Education carried out a national study with the collaboration of the Canadian House Experience (2004). It was conducted to evaluate the Basic Education Cyclel. The study's objectives were to examine the curricula and textbooks, as well as finding ways to improve schooling conditions. Thus, the study concentrated on the students learning and achievements, providing supporting documentation for the curriculum and textbooks, performance of head teachers and supervisors, teaching methods, learning resource centres, methods of evaluation, management of school, school buildings and their contents, rehabilitation programs and training, financial resources, activities for

students, participation and the local community. Providing such essential educational facilities such as libraries, general science laboratories, multipurpose rooms, and basic teaching/learning material and equipment were also included in the study process. At the same time efforts were also geared towards increasing the supply of Omani teachers (Ministry of Education, 2004).

#### 1.2 EFFICIENCY IN THE EDUCATION SYSTEM

Efficiency is more of an economic than an educational phenomenon. It is a popular topic when studying economy. By simple definition, efficiency is the measure of how much output is generated compared to the input. But other forms of measurement have also been used before. According to Yang (2005: 25), efficiency can be categorized into two groups:

- a. Technical Efficiency; Technical efficiency means producing maximum output with given inputs; or equivalently, using minimum input to produce a given output.
- b. Economic Efficiency; Economic efficiency measures producing maximum value of output with given value of inputs; or equivalently using minimum value of inputs to produce a given value of output.

According to Yang (2005: 26), technical efficiency is measured by the relationship between the physical quantities of output, whereas economic efficiency is measured by the relationship between the value of the output and the value of the input. Using technical efficiency, there is always a relative efficiency score. When we call a system inefficient, we are claiming that we could not achieve the desired output with less input or that the input employed could produce more of the output desired. On the other hand an efficient system is when the value of the output can be obtained with the minimum of input. The economic

efficiency can help to maximise profitability for an investment better than technical efficiency in the system.

Although efficiency is an economic concept, it has applicability to education, because of its relevance to the socio-economic development of a country. This is perhaps also due to the fact that there are resource constraints to the provision of basic education (Padmanabhan, 2001; Buckland, 2003). Therefore, every effort must be made to increase the efficiency aspects of the education system. Efficiency comes in two forms; internal and external efficiencies. Both external efficiency and internal efficiency are important for improving the educational system.

Analysis of an educational system can identify efficient and less efficient schools and show determinants of the educational efficiency, which gives educational policy makers valuable information on how educational system can be improved. An increase in basic educational efficiency would result in better student achievements without an increase in resources.

However, it must be mentioned that the notion of efficiency differs from that of effectiveness. The latter means that a school achieves high results no matter what its resources are. On the other hand, efficiency means that a school achieves maximum results possible with limited resources. This corresponds to the definition of a production function, which shows maximum possible output at a given level of input. In this sense, schools may be viewed as production units that use inputs and produce outputs. For example a school with more than enough qualified teachers produce students who do not repeat their grade

level. This school can be considered to be an effective school. However if for some reason some of the qualified teachers are pulled out and the students in the school do not repeat their grades, then the school can be considered to be efficient. Nonetheless, we cannot say what would be the maximum level of possible output. We can only estimate this by observing the schools that produce the most output at the given level of input. Efficiency is then a measure between a given school and the most efficient schools. This is the basic principle for analysis of education systems (Tsang, 2002).

Generally, internal efficiency is concerned with the relationship between inputs and immediate goals (output) in an education system, such as the number of graduates, the quality of education and the earning capacity of graduates. Traditionally, much of the economic analysis of the education system has been concerned with the profitability of educational investment as measured through rates of return and using cost-benefit analysis. The limits to this approach have been widely discussed and as a result, the analysis for cost-effectiveness in an education system has gained importance. Cost-effectiveness analysis is broader than cost-benefit analysis as it tries to identify the most cost-effective way to change the combination of inputs so as to maximize output, or to achieve a quantitatively or qualitatively defined output or outcome with least input costs. Thus, output or benefits need not be expressed in the same (monetary) units as required in cost-benefit analysis (Vos, 1996).

MacMahon (1993) defined internal efficiency as learning and other educational outcomes that are produced in schools. As such internal efficiency seeks to address concerns of wastage within the process while external efficiency relates to how well the

graduates contribute to economic development through the resources invested in their education.

Over the years many countries have made efforts to improve educational efficiency by enhancing learning achievements. These reforms dealt mainly with renewing the content of the curricula, upgrading teacher performance, improving teacher education, examination processes, guidance in school, quality management, and facilities, etc, with the aim of improving teaching and enhancing learning. Even though the results of these reforms are difficult to assess but their importance and urgency is evident when considering rates of dropout and the poor conditions of instruction in many developing countries (UNESCO, 2000).

Ross and Mahlck (1990) and Ncube (2004) suggests that the yardstick that can be used to measure the quality of education are teacher qualifications, curriculum, teaching methodology, facilities and quality of examination. The bulk of these indicators constitute internal efficiency of the school system, which this study seeks to analyze. While Ross and Mahlck (1990) stressed an examination, results are used to monitor the performance of schools alongside the level of the curriculum and facilities. All these are indicators of the internal efficiency of the school system. Because the concept of efficiency is very diverse, this study will be focusing just on the level of the internal efficiency.

In recent years, studies showed that the relevant roles played by schools are pertinent to students' achievement. However, differences between schools and school resources are also important to explain the differences in students' achievement. Many

authorities also contended that differences in schools and school facilities, curriculum syllabus, examination systems, teachers' teaching and student learning seem to affect the achievement of students more compared to the other factors (Yousif, 1984; Chapman & Windham, 1986; Fuller & Heyneman, 1989; Hanushek, 1995; Caillods & Postlethwaite, 1995; Abagi & Odipo, 1997; Bennell & Sayed, 2002; Bowora, 2002; Wako, 2002; Mugimu, 2004).

#### 1.3 PROBLEM STATEMENT

The main issue here is how has educational reform led towards efficiency particularly internal efficiency of the Omani education system. Much has been done and a lot of money has been spent to reform the system over forty years. These inputs of educational reform (finance, effort and time) have accumulated over time to serve the present system. However, it is questionable whether accumulated inputs contributed towards the effectiveness and efficiency of the system.

Education reform is a plan or movement which attempts to bring about a systemic change in educational practices. According to Parker (2003:10), educational reform means a specific type of educational change. This is used to describe deliberate, planned attempts to change aspects of an educational system with a goal of improvement or progress in a desired direction. Thus, moving through each stage of reform implementation creates more complicated issues to be dealt with in order to achieve a successful and effective educational reform. More often than not it involves a reform of the curriculum and operational structure.

On the other hand all education reforms face many challenges, and the directions of the reform need to be consistently monitored and adapted in order to achieve their goals. We hope that providing information about the qualitative internal efficiency in educational reform will encourage the improvement of the basic education cycle 2 in the Sultanate of Oman.

As mentioned earlier, both effective and efficiency mechanisms are important in steps to improve any educational system. Efficiency can be divided into internal and external efficiency and both contribute to the betterment of a system. However, the inadequacy of the internal efficiency in the education system seems to be one of the main reasons to determine standards in the schools. Perhaps one of the best ways to reduce this inadequacy of the system, particularly in basic education, is by raising the internal efficiency of the education system through various perspectives. The internal efficiency in basic education can be affected by a number of factors related to the promotion, failure and dropout rates based on the quantitative internal efficiency of the school system. Qualitative internal efficiency of the school system is often measured through the achievements of the students and school. The analyses are mainly based on what happens once one enters the school or factors that affect the learning through; the curriculum syllabus, examination system, facilities, teacher teaching and student learning.

Generally, a formal education system based on the modern curriculum is new to the Sultanate of Oman. Furthermore, there has been a change in this system recently. A lot of effort and money have been spent to ensure quality education for the people of Oman. A lot of praise has been heaped on the education reform in Oman, but the question remains:

- What kind of educational reform has taken place?
- How was the educational reform conducted?
- Does the reform have any bearing on efficiency especially internal efficiency?

This is basically the problem and the intent of this study.

#### 1.4 OBJECTIVES OF STUDY

The main objectives of this study are to examine the educational reform in Oman with a view towards internal efficiency of the Basic Education Cycle 2 in the Sultanate of Oman. The specific objectives of the study are to;

- 1. Investigate the educational reform in the Omani Educational System
- 2. Examine whether this reform could lead to internal efficiency of the system by systematically examining the internal processing of the inputs.

#### 1.5 RESEARCH QUESTIONS

The main objectives of this study are to scrutinize the educational reforms in terms of the inputs to the present Omani Education System and the resulting outputs. This is done with the intention to examine whether the system is moving towards achieving internal efficiency in the Basic Education Cycle 2 system. The consequential research questions are as follows:

- 1. What were the main characteristics in the Educational Reform in Oman?
  - a. When did the modern educational reform start?
  - b. Who were responsible for the reform movement?
  - c. How was the reform conducted?

- d. What was reformed?
- e. What are the changes that have occurred in the Omani Educational System?
- 2. How has the reform movement affected inputs of the education system?
  - a. What are the main educational inputs of the new system?
  - b. How were the inputs delivered and accumulated?
- 3. How has the reform movement affected outputs of the education system?
  - a. What outputs were produced?
  - b. What were the tangible outputs?
  - c. What is the quality of the outputs?
- 4. How has the reform movement affected the Internal Processing System?
  - a. Were the inputs used efficiently?
  - b. Were the outputs produced efficiently?

#### 1.6 SIGNIFICANCE OF THE STUDY

This study comes as a response to the changes in the Omani system of education, along with the education system in a country which has undergone numerous changes. The changes were made so as to enable the nation to maintain her economic empowering. At least for the time being, the country seemed to have been successful. A small nation like the Sultanate of Oman may not able to compare with unions like the United States, China or Japan but it must maintain a certain level of efficiency in its education system so as not to be left behind.

The new education system in Oman, which started in 1998/1999 with aims to immerse Omani students into the new era of globalization, has not been reviewed at all.

Thus there is no certainty as to its overall efficiency. Therefore, to conduct a full scale study of the complete efficiency of this system will not be practical for the researcher. As such the researcher only intends to examine the internal efficiency of the Basic Education System Cycle 2 of the Omani Education System. Nonetheless, this study can contribute significantly to different stake holders namely, the government, the ministry of education, the schools, principles, teachers, students and parents.

This study places its necessity in response to a number of recommendations of several studies (Hosny, 1980; Ncube, 2004; Yousif, 1994) on the increase of efficiency and internal efficiency in education. The results of the recent educational research and studies have emphasized on the factors influencing the weakness of the internal efficiency of education systems. There has not been any study – at least to the knowledge of the researcher – done on the internal efficiency of the Basic Education Cycle 2 in the Sultanate of Oman. Thus, this study would help future researchers to make further studies in this area. The findings on the internal efficiency can illustrate/demonstrate:

- The weakness of the system.
- b. The strength of the system.
- c. Relationship between the different elements in the internal efficiency of the system.

This in turn can provide better understanding of the system and enable necessary adjustments and correlations to be made in order to maintain the system. Better usage of resources can help improve the quality of the system. The system can then be upgraded when the weaknesses in the system are weeded out and the strengths highlighted.

#### 1.7 LIMITATIONS AND DELIMITATION OF THE STUDY

Any study on any topic must deal rigorously with terms and concepts, design, data, gathering and analysis of the study. Nonetheless, there will always be limitation to the study as no study is perfect in this aspect and the limitations of this study are as follows:

- a. Gathering qualitative data through much of the findings may not be generalized to other settings.
- b. The samples gathered from only 4 districts which have been randomly picked are hoped to be representative of the other districts.

On the other hand, the researcher can only do certain things given the limitation of time, finance and resources. As such, the delimitations of this study are as follows:

- a. Basic Education Cycle 2 (5-10).
- b. Internal efficiency
- c. The variables in the curriculum syllabus, examination system, facilities, teacher teaching and student learning.
- d. These districts: Muscat, Al-Batinah North, Al-Sharqiyah North, Al-Dakhliyah.

#### 1.8 OPERATIONAL DEFINITION

The following terms, as used in this study ought to be understood as follows:

#### 1.8.1 Efficiency

Efficiency refers to a ratio between inputs and outputs. A more efficient system obtains more outputs for a given set of resource inputs, or achieves comparable levels of outputs for fewer inputs. The output of education refers to that portion of student growth or development that can reasonably be attributed to specific educational experiences (Pennycuick, 1998: 16).

#### 1.8.2 Internal efficiency

Internal efficiency is the amount of learning achieved during school attendance, compared to the resources provided. It is important for any educational system to improve its internal efficiency constantly because it competes with other social expenditures. Strategies to improve internal efficiency can be discussed as follows: a) to focus the use of resources on those inputs that are deemed to have the best effect on learning, and, b) to reduce the total costs but keeping the output stable (Lockheed & Hanushek, 1994: 1781; Padmanabhan, 2001: 2).

This study concentrates on Basic Education Cycle 2. In the internal efficiency of the Basic Education Cycle 2, the quality of students is usually measured in examinations but this is not the only instrument of measurement. However, other indicators that can be inferred by the efficiency are as follows;

- a. the quality of the school curricula;
- b. textbooks assessments and relevance;
- c. teachers and education;
- d. the effectiveness of the activities and accompanying technical means;
- e. equipment of all kinds (from the appropriate classes and laboratories and room of activities and others) plus other indicators.

#### 1.8.3 Quantitative internal efficiency

This is measured of the school system, revealed through aspects related to the promotion achievement of the students, failures and drop outs (Alzekry, 1998: 42).

#### 1.8.4 Qualitative internal efficiency

This is measured of the school system through the scope of analysis in the students and the school's achievement, as explained in the curriculum and syllabus, the examination system, facilities, teacher teaching and student learning (Alzekry, 1998: 42).

#### 1.8.5 Educational Reform

Changes or improvement to the educational system brought about by national concerns related to the provision of education suited to the changing needs of a society (Adam, 2005: 7; Hundley, 2006: 2).

#### 1.8.6 Basic Education

A unified ten-year education has been provided by the Sultanate of Oman for all children of school age. It meets their educational needs in terms of knowledge, skills, attitudes and values, enabling them to continue their interests, aptitudes, and dispositions, and enabling them to face the challenges of their present circumstances and future developments, in the context of a comprehensive social development (Ministry of Education, 1998). This is Cycle 1 (1-4) and Cycle 2 (5-10) of the Omani system of education. However the focus of this study will be on Cycle 2 (5-10).

#### 1.8.7 School Headmaster

In the study the school headmaster is responsible for the management of the school environment as well as ensuring the provision of appropriate educational facilities. He/She is also the permanent supervisor who must ensure the safe functioning of the educational process, and coordinate the efforts of workers, orientation and their calendars in order to achieve the overall objectives of the education system (Al-Hadidi, 1998: 21).

#### 1.8.8 Curriculum and syllabus

Wilson, (2005: 1) presents curriculum as a group of knowledge: That which is taught in schools; A set of subjects; Content; A program of studies; A set of materials; A sequence of courses.; A set of performance objectives; A course of study; Is everything that goes on within the school, including extra-class activities, guidance, and interpersonal relationships. Everything that is planned by the school personnel; A series of experiences undergone by learners in a school; That which an individual learner experiences as a result of schooling (Loucks-Horsley, Hewson, Loue & Stiles, 1998: 65; Hoadley and Jansen, 2002: 29).

Roberts (2003, 3) states that there are three faces of curriculum; curriculum as a thing; curriculum as a communication system; and curriculum as a system of influence. According to Roberts further, curriculum as a thing focusses attention on the architecture of that first cousin to the curriculum, namely the program of studies, or

... the guidelines, As communication system, the program of studies is likely to be the document that communicates curriculum policy to the teaching force rather than statements of overall goal orientation and vision, which are more abstract and further removed from the classroom, and as system of influence is intended to have influence to be both informative and convincing.

(Tanner and Tanner, 1975: 48-49)

In this study, a curriculum is defined as all the objectives, contents, experience and guided learning experiences, and intended outcomes, formulated through the systematic construction of knowledge and experience.

#### 1.8.9 Student Learning

In this study, students are known for their high levels of achievement in all subjects in the school through active interaction and the results are high in all areas and the skills required for success is in accordance with the objectives identified for cycle 2.

#### 1.8.10 Teacher Teaching

The characteristics of the teacher population (like the status of the profession, and what they bring to the instructional process) are represented by the following criteria:

- a) the number of teachers,
- b) the percentage of female teachers,
- c) training (by level),
- d) average salaries, and
- e) attrition rates leading to influence in learning and internal efficiency (Easton, Holmes, Williams & Duplessis, 1992).

#### 1.8.11 Facilities

In this study, facilities refer to the availability of all equipment from the school science laboratories to classrooms that are fully equipped with all the educational resources for classroom materials, sports facilities as well as a fully equipped computer laboratory.

#### 1.8.12 Examination system

In this study, the term examination refers to the following: examination must not only work to improve the quality in education, but should provide support for it. For example, the examination system should help extend the curriculum coverage, reflect their certification function by including content that is appropriate for all levels of student achievement, and provide itemized performance feedback to schools. Also, the results from valid examination procedures are especially useful for information on external and internal efficiency. Examination should also provide valuable information on issues relating to education and supervision.

#### 1.9 Conclusion

Chapter 1 has covered the following aspects: background to the study; statement of the problem, specific research questions, significance of the study, rationales for the study, the aim of the study, limitations in the study, demarcations of the study, definition of terms, and a brief summary of the research design. The next chapter looks at review of related literature on the quality education, and the level of internal efficiency in the basic education cycle 2 (5-10) in the Sultanate of Oman.