

Chapter 8

Quality and Efficiency of Education

Thailand has made substantial progress in expanding access to education at all levels. However, much remains to be done concerning the quality and efficiency of education in order to achieve the stated objectives and principles of education.

8.1 Quality of Education

The quality of education can be reflected through major elements such as qualified teaching staff, effective teaching – learning processes, as well as flexible curricula supported by appropriate learning materials and educational technology as presented below.

8.1.1 Teachers and Teaching Staff

A. Qualifications of Teaching Staff

The quality of teachers or teaching staff is the most important element in raising the standards of education. However, the qualifications of teaching staff and the quality of their teaching are currently issues of concern in *Thailand*.

A nation – wide survey conducted in 1998 shows that primary schools have 84.7 percent of teachers with a Bachelor's degree or higher while there are 95.9 percent in secondary schools. However, disparities in the qualifications of teachers exist both at primary and secondary levels. *ONPEC* has roughly 50 percent more teachers with less than 14 years of formal schooling in the North and Northeast than in the central region (Table 8.1). The Northeast also has the lowest percentage of teachers with a Bachelor's degree or higher. Compared to the central region, the Northeast has almost 50 percent more teachers with only diploma level qualifications.

As regards secondary school teachers of the *Department of General Education*, the central region has the advantage in terms of qualified teachers. The South has the lowest percentage of teachers with a Bachelor's or higher level of qualifications. The Northeast has nearly double the percentage of the central region with respect to teachers who have only a diploma.

Disparities in the qualifications of teaching staff have been found particularly among higher education institutions under the *MOE*. *Rajabhat Institutes* and *Rajamangala Institutes of Technology* which offer both B.A. and M.A. programmes have a higher percentage of teaching staff with Master's degrees than vocational colleges under the Department of Vocational Education which offer courses only at undergraduate level. The numbers of teaching staff at physical education colleges are equal in terms of Bachelor's and Master's degrees. All types of educational institutions have only a small number of teaching staff with a Ph.D. (Table 8.2).

Table 8.1 Relationship between Educational Qualifications and Region where Teaching, ONPEC and DGE , 1998

	Less than 14 years of education	Diploma, equivalent to 14 years of schooling	B . A . or higher educational level
ONPEC			
Central	3.96	8.01	88.03
South	4.10	10.45	84.45
North	6.03	8.51	85.46
Northeast	6.06	11.63	82.31
DGE			
Central	0.32	2.52	97.16
South	0.60	5.35	94.05
North	0.40	3.99	95.61
Northeast	0.26	4.34	95.40

Source : Fry, Gerald. **Teaching Personnel Strategy in Thailand : A Review and Recommendations**, Prepared for UNESCO-Bangkok, 1999.

Table 8.2 Percentage of Teaching Staff in Higher Education Institutions under MOE by Qualification, 1998.

	Lower than Bachelor's degree	Bachelor's degree	Higher Education Certificate	Master's degree	Ph.D.	Total
Rajabhat Institutes	0.49	29.76	0.55	64.87	4.33	100.00
RIT	1.51	61.65	-	34.54	2.30	100.00
Vocational colleges	13.32	76.91	-	9.62	0.15	100.00
Physical education colleges	-	49.46	-	49.46	1.08	100.00

Source : Educational Information Centre, ONEC.

With respect to the qualifications of teaching staff in higher institutions under the *Ministry of University Affairs*, public and private universities have nearly the same percentage of teaching staff with Master's degrees (53.72 and 55.55 percent respectively). However, public universities have about three times as many teaching staff with a Ph.D. than private universities, while private universities have a much higher percentage of those with Bachelor's degree than public universities (Table 8.3).

Table 8.3 Percentage of Teaching Staff in Public and Private Universities under MUA by Qualification, 1998

	Public	Private
Lower than Bachelor's degree	13.72	0.15
Bachelor's degree	11.00	36.50
Certificate of Higher Education	0.04	-
Master's degree	53.72	55.55
Ph.D.	21.52	7.80
Total	100.00	100.00

Source : Educational Information Centre, ONEC.

B. Workload of Teachers

According to the standard criteria, the total workload of primary, lower secondary and upper secondary school teachers is 35 hours per week which includes teaching load and other tasks. The *Survey on Workload of Teachers* conducted by ONEC in the first semester of the academic year 1999 revealed that the average workload of teachers at all levels was 28.7 hours per week which was below the standard criteria.

However, the amount of time teachers at all levels actually spent teaching was less than half of their total workload. The rest of their time was spent preparing lessons, support teaching and others as shown in Table 8.4.

Table 8.4 Workload of Teachers by Level of Education and Activities, Academic Year 1999.

(Hours per Week)

Level of Education	Teaching	Preparing Lessons	Teaching Support	Others	Total
Primary	13.3	5.5	5.0	3.5	27.3
Lower Secondary	13.9	5.5	5.5	4.0	28.9
Upper Secondary	12.5	7.0	5.8	4.8	30.1

Source : Educational Survey and Research Centre, ONEC.

The amount of time spent by teachers varied in terms of subject areas. Mathematics teachers spent the highest amount of time, on average 31.4 hours per week while Thai language teachers had only 21.4 hours of workload per week as shown in Table 8.5. However, one teacher may teach in more than one subject area.

Table 8.5 Workload of Teachers by Subject Areas and Activities, Academic Year 1999.

(Hours per Week)

Subject Areas	Teaching	Preparing Lessons	Teaching Support	Others	Total
Mathematics	17.2	5.8	4.9	3.5	31.4
Science	11.0	6.3	5.1	4.1	26.5
Social Sciences	10.9	5.8	4.9	3.4	25.0
F o r e i g n Languages	10.0	5.8	4.9	3.4	24.1
Thai Language	6.9	5.9	4.9	3.7	21.4

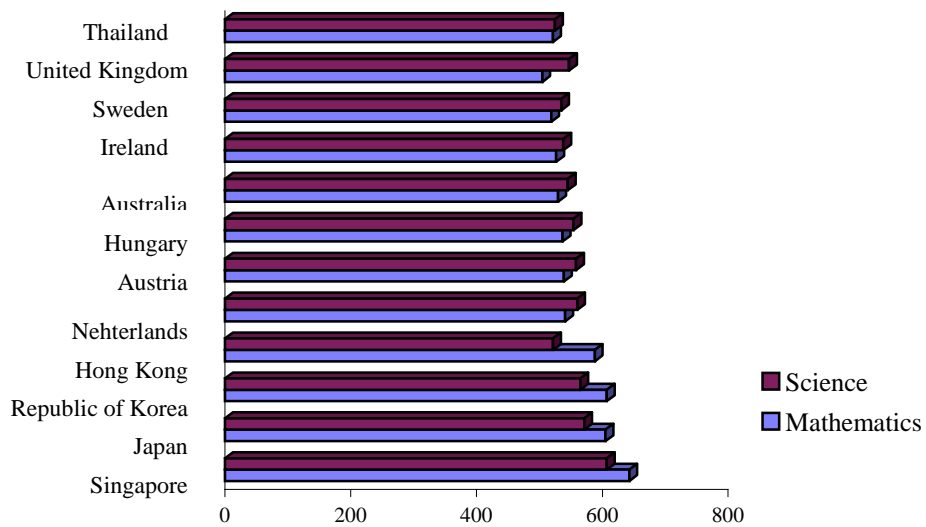
Source : Educational Survey and Research Centre, ONEC.

8.1.2 Teaching – Learning Process

According to a poll on educational quality commissioned by the *ONEC*, about 57 percent of those surveyed note a decline in the quality of teaching. An over emphasis on memorization and teacher – centred learning have been persisting problems in Thai education resulting in a relative weakness in the teaching – learning process, particularly in the critical fields of science, mathematics and foreign languages.

As regards the teaching – learning of science and mathematics, international comparisons of student achievement have become an essential tool for assessing the performance of education systems. The Third International Mathematics and Science Study (TIMSS) undertaken by the International Association for the Evaluation of Educational Achievement (IEA) revealed that the performance of Thai students in mathematics and science was lower than those of many countries, for example, *Australia, Austria, Hungary, Ireland, the Netherlands, Sweden and United Kingdom*, as well as some countries in Asia like *Singapore, Japan, Korea and Hong Kong* as shown on figure 8.1.

Figure 8.1 Mathematics and Science Achievement for students in the 8th Grade



Source : IMD, the World Competitiveness Yearbook 1999.

One international indicator has suggested that the curriculum design in *Thailand* be improved. Table 8.7 shows that the amount of intended instruction time in mathematics and science for 14 year – olds in *Thailand* is significantly less than those of all countries with higher performance in these two subjects as shown on Table 8.6. As knowledge of and skills in mathematics and science are central to the ability to compete in the global marketplace, the proportion of the curriculum that is devoted to the instruction of these subjects must be increased in order to achieve higher performance by Thai students.

Table 8.6 Intended instruction time for mathematics and science in hours per year for students 12 to 14 years of age (1996)

	12 years	13 years	14 years	Average 12 to 14 years
Australia	251	251	251	251
Austria	260	325	390	325
Hungary	184	236	236	219
Ireland	200	200	200	200
Netherlands	200	200	200	200
Sweden	189	189	189	189
United Kingdom	215	219	228	221
Republic of Korea	204	204	204	204
Thailand	200	200	100	167

Source : Education at a Glance – OECD Indicators, 1998.

Special attention is currently being given to the issues of teaching science, mathematics and foreign languages, especially English. The report on *Teaching Personnel Strategy in Thailand : A Review and Recommendations* revealed major problems found in the teaching – learning process in science, mathematics and foreign languages as summarized below.

1) Teaching of Science

- Many teachers do not like teaching mathematics and science, and lack the ability to foster scientific thinking and skills.
- At all levels of education, but especially at primary school level, teachers lack a speciality in science.
- At the secondary level, there is an over – emphasis on preparing students for the University Entrance Examination.
- There is a lack of quality science learning materials, particularly at primary school level.

2) Teaching of Mathematics

- Mathematics is frequently taught as an isolated subject, unrelated to other subjects in the curriculum.
- Overly westernized approaches to mathematics education have led to an emphasis on rote teaching and learning of mathematics.

3) Teaching of Foreign languages

- Excessively large classes for language learning, particularly at the upper – secondary and post – secondary levels.
- Continued over – reliance on the grammar – translation method.

- Inadequate training of teachers and lack of highly qualified teachers.

In terms of learning materials for primary and secondary schools, the Department of Curriculum and Instruction Development is responsible for the development and publishing of textbooks and support materials, including instructional materials for teachers and educators. At the lower and upper secondary levels, however, private publishers are permitted, with the *MOE*'s approval, to provide textbooks, teachers' guides and other learning materials for the elective subjects and foreign languages.

However, there is still a lack of quality learning materials in all subjects, particularly in science, mathematics and languages. A major problem found in language teaching and learning is the inadequate utilization of modern language learning equipment and materials such as computers, videos, language – learning software, etc.

8.1.3 Technologies for Education

The role of educational and information technology has been recognized in raising the quality of education in *Thailand*. Although the introduction of information technology to improve the quality of learning is still limited, greater efforts have been made to initiate new technologies in education.

A. Library Network

While textbooks and access to libraries are key determinants of effective learning, particularly at secondary and higher levels, many schools are still limited to a textbook loan system and inadequate well stocked school libraries. Moreover, the high cost of library resources as well as the effects of information explosion have made it very difficult for any library to be self-sufficient in meeting its growing user demand. Therefore, library network has been initiated in *Thailand* for library cooperation by employing advanced information and networking technologies to achieve resource sharing among libraries. The libraries that are developing their networks are classified into 5 groups :

1) **National Library** is situated in Bangkok with its 16 regional branches.

2) **University and College Library**

- **University Library** , the most advanced networking of libraries in *Thailand* with 24 public and 36 private university libraries. The famous networks are Chulalinet (Chulalongkorn University), Nontrinet (Kasetsart University), PULINET (Provincial University Library and Information Network), and ThaiLINET-Thai Academic Library Network: Metropolitan).

- **Rajabhat Institute Library** , an effective and successful library network of all 36 Rajabhat Institutes.

- **Rajamangala Institute of Technology Library** , with RIT LIBNET being developed for 50 RIT libraries.

3) School Library , consisting of secondary and primary school libraries with different size according to the school size.

4) Public Library , consisting of libraries under the responsibility of *Bangkok Metropolitan Administration* and the *Department of Non-Formal Education*. All public libraries of *BMA* will be linked through the Internet by 1999. Among 808 public Libraries of *DNFE*, fifty of them have been developed as electronic libraries since 1998.

5) Special Library, e.g. the library network of the Ministry of Science, Technology and Environment consisting of 7 libraries of its departments.

However, the development of library network has still been limited to only some types of libraries and some areas. Limitations exist in terms of the use of computers in the libraries, number of personnel and their IT literacy as well as management of information technology. Some library networks have not yet been linked through information technology and telecommunications.

B. Radio Broadcasting and Television for Education

Radio broadcasting, in general, has been used for education mainly as teaching instrument and learning sources. At present, educational services have been provided through the following radio broadcasting :

1). Radio Thailand for Education

Educational programmes have been provided through Radio Thailand for Education to support learning in schools and teacher training for the expansion of educational opportunities in order to achieve equity in educational quality. At present, there are 11 stations of Radio Thailand for Education throughout the country, one is in Bangkok and the rest are in the provinces. The broadcasting time is allocated by a committee to different target groups and agencies as shown in Table 8.8.

Table 8.8 Allocation of Time to Target Groups

Target Group/ Responsible Body	No. of Hours	%
1. Students : open university	49	37.4
2. Pupils : School Radio Programmes of MOE	25.5	19.5
3. Youth : NFE Correspondence Programmes	20	15.3
4. Teachers : Office of Rajabhat Institutes	10.5	8
5. Farmers : Ministry of Agriculture and Cooperatives	7	2.6
6. General Public : News and Health Programmes	18.9	17.2

2) MOE Education Radio Station , operated by the *Department of Non-Formal Education*, provides two different programmes : Education Ratio for the General Public and School Radio.

3) University Radio Broadcasting provides educational services through 23 radio stations both in Bangkok and regional areas.

However, limitations exist in the utilization of radio broadcasting in teaching-learning process to improve the quality of education. A research conducted by the *Department of Public Relations* indicated that those listening to Radio Thailand for Education regularly for educational purposes accounted for only 11.4 percent. Besides, there were only 10.3 percent of teachers using educational radio programmes for teaching and learning.

As regards educational television, it has been used for providing formal, non-formal and informal education services. The agencies responsible for educational television programmes are as follows :

1) **Educational Technology Centre** of *DNFE* provides educational television programmes on Channel 5, 7, 9 and 11.

2) **Mahidol University** provides child care programme to parents and the public on Channel 7.

3) **Ramkhamhaeng Open University** broadcasts teaching and learning programmes through radio and television for about 22 hours a week on Channel 7 and 11.

4) **Sukhothaimathirath Open University** broadcasts teaching and learning programmes on Channel 11 for 21 hours a week.

5) **Walailak University** provides educational programmes to the public on television in Nakornsithammarat Province.

However, educational television in *Thailand* has still made little contribution to learning process due to the problems of area coverage as well as quality and diversity of the programmes provided.

C. Information Technology for Education

Information Technology has been increasingly used to improve the quality of education in *Thailand*. New technologies, particularly the Internet, have changed the concept of learning and emphasized the idea of student – centred learning. The introduction of information technology for education in *Thailand* is presented below.

1) **Distance Learning via Satellite** provides 3 types of educational services : formal, non-formal and informal education. The distance – education programmes via satellite have been provided for the first time by *DNFE* in 1996 after Thai Com's satellite is in use. The Minister of Education had signed a contract with the Thai Com Foundation who would bear the expenditure of one channel for five years while the *MOE* agreed to invest in the satellite receiver.

From 1997 to 1998, the *MOE* increased the number of stations nationwide to children who were in schools as well as those who were deprived of education. In 1999, there were plans to increase the number of stations around the country to cover those in remote areas in the form of community educational centres.

Unfortunately, the Thai Com Foundation has decided to discontinue the joint project because the *MOE* targeted the wrong group. According to the agreement, the targeted group were students who had no access to education, rather than students who were already in schools.

At present, there are a total of 15,590 integrated sets of receiver and decoder in schools nationwide. Once Thai Com discontinues its supports, *DNFE* will have to rent a satellite channel on Thai Com.

2) **General Education Programme through Distance Learning System via Satellite** provided by the *Department of General Education*. The teaching and learning has been broadcast through Digital DTH television system to schools participating in the project across the country.

3) **Thai Social / Scientific, Academic and Research Network : ThaiSARN**

ThaiSARN has been created to support education, research and development since 1992. It provides linkages among universities and other public educational institutions.

4) **The SchoolNet Thailand**

The SchoolNet *Thailand* project started as a small network in 1995 and served only schools in Bangkok. In 1996, another nationwide network called the Kanchanapisek (Golden Jubilee) Network was established to celebrate the 50th anniversary of His Majesty the King's accession to the throne. It consisted of an electronic library containing information related to His Majesty the King of *Thailand*.

The SchoolNet and the Kanchanapisek Network were merged in February, 1998 in order to create a large-scale nationwide network for schools. This was the first nationwide, free-access network for education in the *ASEAN* region. The project was called SchoolNet@1509 to signify the special telephone number-1509, which could be used anywhere in *Thailand* to access the network. In April 1999, there were altogether 923 schools and 1,757 registered users of SchoolNet @ 1509.

Box 1 : Contents Creation and Other Activities in SchoolNet Thailand

After spending the first few years developing the network infrastructure, we have gradually come to realize the importance of content – especially Thai – language content on the Internet. The first serious attempt to tackle this problem was undertaken in the Kanchanapisek project where we worked with eleven organizations which had served the country through many successful projects initiated by His Majesty the King. Thousands of Thai-language web pages were created that document the vast amount of information concerning the royally initiated project : such as rural development, agriculture, irrigation and a junior encyclopaedia.

In a similar manner, SchoolNet@1509 needs good local content to attract teachers and students online. If left alone in the Cyberspace dominated by English content, the language barrier will discourage most teachers and students from using the Internet. Therefore, it is essential that we have Thai-language content with good educational value that is designed to help the children do better in school.

The SchoolNet Content Development project was therefore started in September 1998. We commissioned Kasetsart University to carry out the project in conjunction with the Institute for the Promotion of Teaching Science and Technology (IPST) and some selected schools. The Objective is to create educational web sites in the Thai language for secondary – school students featuring 7 major academic subjects, namely : Computer Science, Mathematics, Physics, Chemistry, Biology, Engineering and Environment. These web sites are scheduled to be launched by December 5, 1999 to celebrate the 72nd birthday anniversary of His Majesty the King. Moreover, we hope that this effort will demonstrate and induce other schools to create their own educational web sites and thus contribute to the overall content for school children in *Thailand*.

Apart from content creation, we feel that it is also important to have activities organized such that teachers and students learn how to get the most from the vast educational potential of the Internet. Held once a year since 1996, Seagate Technology (*Thailand*) has joined us in organizing the Internet Training Camp for secondary school children. Students who sign up are trained in web development; they then compete against each other by building their own web pages centering on each year's theme (for example, environment protection, the solar system, etc.).

Source Kiattananan, Paisal and Koanantakool, Thaweesak.

“SchoolNet Thailand : An Information Infrastructure for the

future of Thailand”. [Online]. Available :

http://www.school.net.th/articles/schoolnet_paper.html 1999.

The implementation of SchoolNet@1509 has been achieved through the cooperation of four government agencies. The *Telephone Organization of Thailand (TOT)* sponsors domestic Internet bandwidth while the *Communication Authority of Thailand (CAT)* donates international Internet bandwidth. The *National Electronics and Computer Technology Centre (NECTEC)* designs, maintains and operates the network and central computer systems. The *MOE* selects schools as well as coordinates, promotes and supports the use of Internet in these schools.

During the early phase of SchoolNet, introductory training courses for the internet were provided for participating schools at NECTEC's facilities in Bangkok. However, as the project advanced, the number of member schools increased rapidly all over the country. It soon became obvious that the model of centralized training was no longer practical.

At present, eight Rajabhat Institutes serve as regional training centres to offer Internet training courses for schools in those areas. With the help of *Rajabhat Institutes*, more schools have received training. Since there are only 36 campuses of *Rajabhat Institutes*, other partners and community involvement are needed to promote the use of Internet in schools.

Box 2 Community Support : SchoolNet Volunteer Programme

Normally after the Internet training courses, quite a number of teachers often encounter technical problems when they go back to their schools and really start getting online. These problems for new users are more difficult when the only place that they can get help is NECTEC. A phone call to NECTEC's helpdesk can cost 18 baht per minute for some areas in the country. This is certainly not affordable for most schools.

One possible solution is to develop local community involvement. Since all of us should take responsibility for the education of our children, why not sacrifice some of our time to help our schools get online? We believe that this spirit is what drives NetDay activities in the United States and the rest of the world. So we proposed a volunteer programme for SchoolNet@1509. When the SchoolNet Volunteer Programme was made public in early 1999, many people signed up and we selected 60 of the most qualified people from 23 provinces.

With a partial funding support from the Kenan Institute Asia, a volunteer conference is taking place in June 1999. In the event, the volunteers are to be briefed about the project, NECTEC's expectation of their support and the working code of practice. Each volunteer will be responsible for a few schools in his/her area. The volunteers are expected to provide first-level support to the schools. This may include answering technical questions, giving advice or even visiting schools to provide on-site support in some cases. We hope that these volunteers will not only make the lives easier for most teachers but will also help convey accurate information about SchoolNet@1509 so that schools better understand our project.

Source Kiattananan, Paisal and Koanantakool, Thaweesak.

“SchoolNet Thailand : An Information Infrastructure for the future of Thailand”. [Online]. Available : http://www.school.net.th/articles/schoolnet_paper.html 1999.

5) University Network (UniNet)

High – speed information technology system has been created to link all universities across the country to support the expansion of higher education to regional areas. UniNet is aimed to promote the quality of learning process in higher education institutions and campus particularly the IT Campus initiated by the *MUA*. IT Campus introduces information technologies into the instructional process, allowing remote campuses to have improved system of virtual instruction environment to improve quality and maximize effectiveness.

In addition, the Campus Network in each university has been linked to available systems of information technology such as electronic libraries, the Internet, multimedia, Video on Demand, self-study courseware, CD-Rom, and Computer Assisted Instruction (CAI).

8.2 Educational Efficiency

In order to improve the quality of education, the issue of educational efficiency has been addressed both in terms of internal and external efficiency.

8.2.1 Internal Efficiency

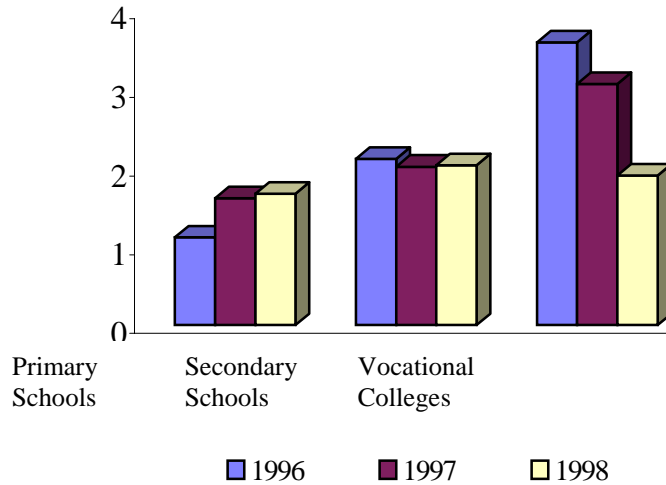
In *Thailand*, major indicators that can be used to reflect the internal efficiency of the educational system are teacher – student ratio / teacher – classroom ratio, retention rates and dropout rates.

A. Teacher – Student Ratio and Teacher – Classroom Ratio

As specified in the Social Sector Programme Policy Matrix negotiated with the *Asian Development Bank*, the student – teacher ratio at the primary level must be raised to 25: 1 by fiscal year 2002 by strictly controlling the hiring of new primary teachers beginning FY1998. However, the study on *Teaching Personnel Strategy in Thailand* confirms that increasing the student – teacher ratio to 25: 1 should not significantly affect educational quality, based on research in many countries that the student – teacher ratio at the margin is only weakly related to educational outcome measures.

Teacher – classroom ratio, however, is extremely important in terms of educational quality. If the teacher – classroom ratio is less than one, then there are not enough teachers to cover every classroom, which can adversely affect the quality of learning. The total teacher – classroom ratios in primary and secondary schools as well as in vocational colleges in *Thailand* from 1996-1998 were more than one indicating adequate teaching staff (Figure 8.2).

Figure 8.2 Teacher – Classroom Ratio at Primary and Secondary Levels and in Vocational Colleges : 1996-1998

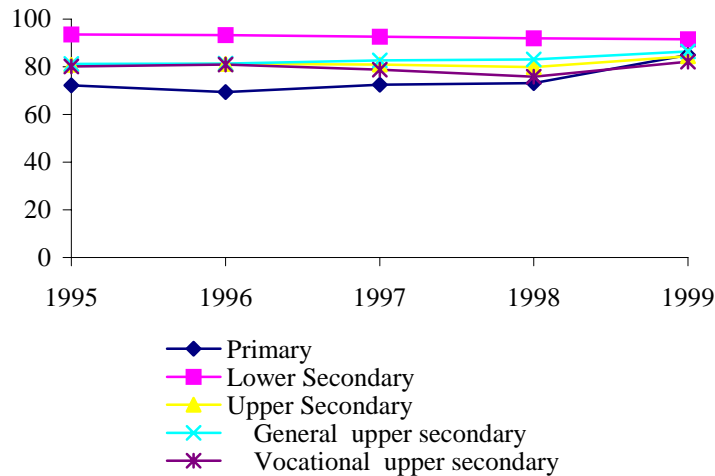


B. Retention Rates

At primary and general upper secondary level, the retention rates have been improving slightly for the past few years. In primary schools, it decreased from 72.2 percent in 1995 to 69.4 percent in 1996, but increased to 85.0 percent in 1999. The retention rate of upper secondary school students in the general stream increased from 81.2 percent in 1995 to 86.5 percent in 1999.

However, there is a decline in the efficiency of education at lower secondary and vocational upper secondary levels. The retention rate of lower secondary students decreased from 93.5 percent in 1995 to 91.5 percent in 1999. Similarly, that of upper secondary students in the vocational stream continued to decline from 80.2 percent in 1995 to 75.9 percent in 1998 but rose to 82.2 percent in 1999 (Figure 8.3).

Figure 8.3 Retention Rate by Level of Education : Academic Year 1995-1999



Source : Educational Information Centre, ONEC.

C. Dropout Rates

Statistics on dropouts is a controversial subject for debate due to poor database setup and management. Caution should be taken when identifying causes and interpreting dropout rates because students leave school for a variety of reasons.

Before the economic crisis in 1997, dropouts in primary education accounted for 2.4%. In 1998, one year after the crisis, dropout figures equaled 148,819 persons or 2.5 percent. At lower secondary education level, the dropouts rose from 3.5 percent in 1997 to 3.6 percent in 1998 or an equivalent number of 89,523. There were also higher dropouts in upper secondary schools, both general and vocational, reaching 9 percent in 1998 (Table 8.7).

Table 8.7 Number and Percentage of School Dropouts, 1997 and 1998

Type of Education	1997			1998		
	students	Dropouts		students	Dropouts	
		Number	%		Number	%
Primary	5,927,940	144,185	2.4	5,936,174	148,819	2.5
Lower Secondary	2,462,631	77,536	3.5	2,426,905	89,523	3.6
Secondary & Vocational	1,620,434	121,862	8.2	1,676,974	146,214	9.0
Total	10,011,005	343,583		10,010,053	384,556	

Source : Educational Information Centre, ONEC.

8.2.2 External Efficiency : Education and Employment

External efficiency of the educational system can be realized through relevance of education to the socio-economic conditions of the country. The ability of graduates to enter the labour market following the completion of education can be seen as an indicator of educational efficiency.

Recently, the transition from education to work has become more difficult, despite the fact that young people entering the labour market are better educated than those in the last decade. In the present world of globalization, there is evidence which suggests that the ability to use English, which is the internet language, and modern technologies may facilitate entry into the labour market.

The *1998 Survey of Thai Youth* was conducted to examine the characteristics of male and female youth through multi – stage sampling to select 4,376 young people from 4,000 households. It was found that less than half of the 2,306 youngsters 15-24 years of age interviewed by structured – interview schedule could speak more than one language. The situation is even worse in rural areas. Among those able to use one other language, about 73.6 percent of the urban population and 58.5 percent of the rural population have an ability to use English (Table 8.8).

Table 8.8 Language Ability of Thai Youth 15-24 Years of Age by Area of Residence and Gender

	Urban			Rural		
	Total	Male	Female	Total	Male	Female
● Able to speak only Thai	52.1	56.3	48.3	62.1	68.8	56.6
● Able to speak at least one other language	47.9	43.7	51.7	37.9	31.2	43.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Ability to use other languages						
● English	73.6	79.1	70.1	58.5	50.0	63.4
● Chinese	13.3	11.7	14.3	1.5	1.5	1.5
● Native	2.3	0.8	3.2	29.5	33.7	27.1
● Others	11.0	8.5	12.4	10.6	14.8	8.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source : The 1998 Survey of Thai Youth, Institute for Population and Social Research, Mahidol University.

Access to and use of computers while in education can provide students with an important knowledge base that can increase their opportunities for employment and success in the job market. In *Thailand*, only 62.9 percent of youth 15-24 years of age in urban areas can use a computer. It was much worse for those in rural areas with 34 percent of youth having an ability to use a computer as shown in Table 8.9. Moreover, the computer programmes used by most Thai youth are games which are not relevant to employment. From the survey, only 8.6 percent of youngsters had access to the internet.

Table 8.9 Computer Skills of Thai Youth 15-24 Years of Age by Area of Residence and Gender

	Urban			Rural		
	Total	Male	Female	Total	Male	Female
Ability to use a computer						
● Able to use a computer	62.9	59.1	66.4	34.0	26.0	40.5
● Unable to use a computer	37.1	40.9	33.6	66.0	74.0	59.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Computer programmes used by Thai youth						
● Games	27.6	30.2	25.6	30.9	37.5	27.9
● Word Processing	25.0	21.8	27.6	27.7	21.5	30.6
● Other applications	17.6	18.0	17.2	21.4	22.3	21.0
● Internet	8.6	9.5	7.9	3.0	3.2	3.0
● Spreadsheet	8.4	7.1	9.4	8.2	6.4	9.0
● E-mail	5.4	6.3	4.6	1.6	2.0	1.5
● Programme writing	3.9	4.6	3.3	3.3	4.0	3.0
● Database	3.6	2.5	4.5	3.8	3.2	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source : The 1998 Survey of Thai Youth, Institute for Population and Social Research, Mahidol University.

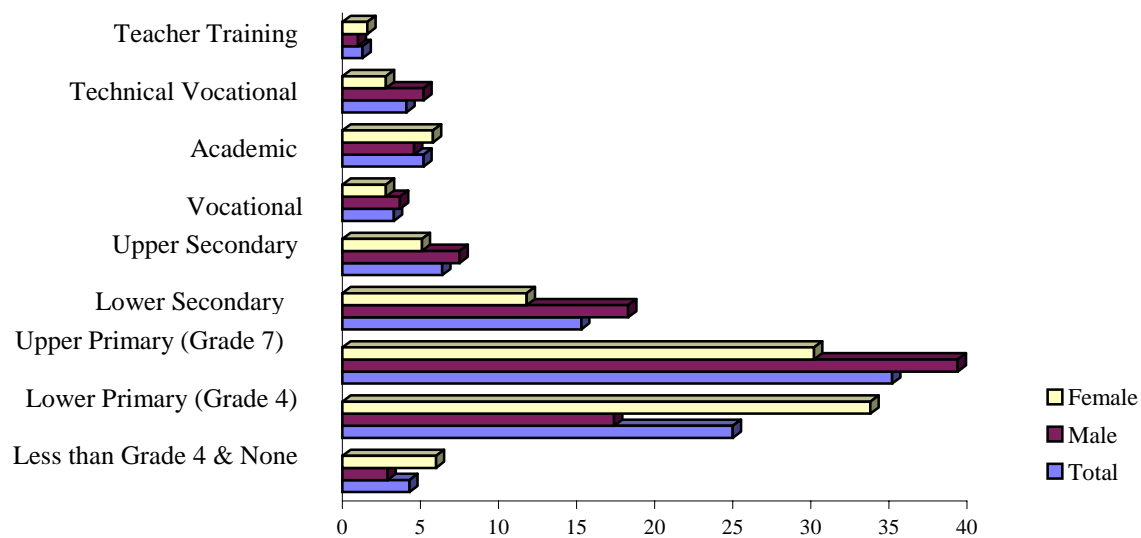
The impacts of economic crisis have affected entry into the labour market of persons who have completed different levels of education. The total unemployment rate more than doubled from 2.2 percent in February 1997 to 5.2 percent in February 1999 (Table 8.10). In August 1997 and 1998, the unemployment rates were lower than those in February because it was traditionally a time of low unemployment due to seasonal demands for labour in agriculture for the planting of the rice crop.

With respect to educational attainment, persons with some primary education or none constituted the highest proportion (64.5 percent) of the total unemployed. Among the persons with middle and high levels of education, vocational and university levels, the rates of unemployment were 12.6 percent. For those with lower primary education (Grade 4) or none, university education in academic stream, and teacher training, more females were employed; whereas males with upper primary, lower and upper secondary, vocational, and technical vocational education at university levels constituted a higher percentage of unemployment (Figure 8.4).

Table 8.10 Unemployment rates by level of educational attainment

	1997		1998		1999
	Feb	Aug	Feb	Aug	Feb
• Below Grade 4	1.6	0.6	3.3	1.9	3.6
• Lower Primary (Grade 4)	1.3	0.4	2.8	2.0	3.1
• Upper Primary (Grade 7)	3.5	1.0	7.8	4.1	8.5
• Lower Secondary	3.1	1.3	5.8	4.2	6.6
• Upper Secondary	2.2	1.3	6.0	5.5	7.0
• Vocational Education	2.7	1.7	4.1	6.3	5.7
• University : Academic	1.8	1.7	3.5	6.0	5.4
• University : Technical Vocational	3.0	3.9	5.1	9.2	8.0
• Teacher Training	2.8	1.4	2.7	2.3	3.1
Total	2.2	0.9	4.6	3.4	5.2

Source : Labour Force Survey, National Statistical Office.

Figure 8.4 Percentage of Unemployed Persons by Level of Educational Attainment and Gender : February 1999.

Source : Labour Force Survey, National Statistical Office.

In terms of the distribution of employed persons by level of education, according to the February 1999 round of the Labour Force Survey, the vast majority had a low level of education, with 70.0 percent having only primary education or none at all, 16.8 percent at secondary level, 10.0 percent at university and 3.1 percent at vocational level (Table 8.11).

As compared to Bangkok Metropolis, the employed persons in regional areas had a much lower level of education. The lowest percentage of employed persons who had some primary level of education or none at all was in the Central Region (67.0 percent). The South showed the second lowest level with 70.7 percent, followed by the North with 77.7 percent and the Northeast with 78.0 percent.

With respect to employed persons with secondary education, Bangkok shows the highest percentage with 22.0 percent, followed by the Central Region, the South, the North and the Northeast with 19.4, 18.3, 14.1 and 13.5 percent respectively.

At a higher level of education, which includes vocational, university and teacher training level, Bangkok also showed the highest percentage with 32.9 percent, followed by the Central Region, the South, the Northeast and the North with only 13.4, 11.0, 8.4 and 8.2 percent respectively.

Table 8.11 Percentage of Employed Persons by Level of Educational Attainment and Region : February 1999

Level of Educational Attainment	Whole Kingdom	Bangkok	Central	Northern	North-eastern	Southern
● None	4.1	1.8	3.0	9.0	1.7	6.1
● Less than Grade 4	2.3	1.3	2.3	3.5	1.7	3.0
● Lower Primary (Grade 4)	43.3	24.1	42.1	47.2	50.9	41.5
● Upper Primary (Grade 7)	20.3	17.7	19.6	18.0	23.7	20.1
● Lower Secondary	12.0	15.2	13.9	10.4	9.9	12.8
● Upper Secondary	4.8	6.8	5.5	3.7	3.6	5.5
● Vocational	3.1	6.5	3.7	2.0	1.7	3.2
● University	7.8	24.2	7.7	4.5	4.0	5.6
- Academic	5.2	18.9	4.5	2.9	2.3	2.8
- Technical Vocational	2.7	5.3	3.2	1.6	1.7	2.8
● Teacher Training	2.2	2.2	2.0	1.7	2.7	2.2
● Others	0.0	0.1	0.1	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source : Labour Force Survey, National Statistical Office.

It can be seen that the current education system is rather irresponsible to the socio – economic conditions of the country. A well – trained and educated labour force is a basic requirement for the development of the knowledge - and information – intensive industries and services in the world of globalization. However, *Thailand* is still poorly equipped to meet the challenges of competition in a globalized world economy. Apart from the relatively poor quality of human resources, with about 70 percent of the workforce possessing only primary school education or less, the majority of graduates, especially of secondary and higher education, lack sufficient skills and knowledge relevant to labour demands such as the ability to use foreign languages and computers. Vocational secondary education, in particular, is inefficient in providing pre – employment training for students. The curricula of vocational schools are comparatively rigid and unresponsive to employment demands. It is thus necessary for *Thailand* to improve the quality of human resources through higher standards of education as a precondition both for moving out of the crisis and into the next development stage in which *Thailand* is able to compete effectively in the world economy.

In sum, greater efforts have been employed to raise the level of quality and efficiency of education in Thailand. However, the desired improvements in education have not been fully achieved. Consequently, effective policy measures and implementation strategies to improve the quality and efficiency of education must be further emphasized and strengthened.