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Final Evaluation Report

Strengthening HIV / AIDS / Prevention Education for Secondary Schools in Cambodia

Fondation Mondiale SIDA

World AIDS Foundation

MINISTRY OF EDUCATION,
YOUTH AND SPORT,
SCHOOL HEALTH DEPARTMENT

UNESCO
CAMBODIA

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REPORT ON THE EVALUATION OF

Strengthening HIV/AIDS/STDs Prevention Education for Secondary Schools in Cambodia Project

1 July 2002

Fondation Mondiale SIDA
World AIDS Foundation

MINISTRY OF EDUCATION
YOUTH AND SPORTS
SCHOOL HEALTH DEPARTMENT

UNESCO
CAMBODIA

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THE STATEMENT OF HIS EXCELLENCY TOL LAH MINISTER OF THE MINISTRY OF EDUCATION, YOUTH AND SPORTS

Dear Teachers,

This report was produced and published under a close cooperation with the World AIDS Foundation, UNFPA and UNESCO, which have been providing technical and financial support for the evaluation and data analysis in order to assess the level of knowledge and awareness among secondary school students on HIV/AIDS Prevention.

On behalf of the Ministry of Education, Youth and Sport and on my own behalf, I would like to congratulate the achievements made by the leaders and staff of the School Health Department (SHD) of the Ministry of Education, Youth and Sports (MoEYS) which have worked in close cooperation with Provincial and District Offices of Education, Youth and Sports, principals, teachers, trainers, and parents of grades 9, 10, 11 and 12 students in the pilot area comprised of 11 provinces and municipalities. Based on the spirit of this cooperation, we conducted and managed the pre-test and post-test and interviewed comprehensively and patiently in order to promote HIV/AIDS prevention education, especially to upgrade the teaching and learning methodology and ability of school principals, teachers, trainers and students in the area of research and analysis of more reliable data.

I would like to express my deep appreciation to Mr. Etienne CLÉMENT, UNESCO Representative in Cambodia, World AIDS Foundation, and UNFPA as well as school directors, teachers, trainers and students for their contribution and participation in this project. May they receive the five Buddha' s blessings: Longevity, Social Recognition, Happiness, Energy and Wisdom and be safe from the epidemic of HIV / AIDS and its catastrophe.

H.E. TOL LAH
Minister

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This evaluation could not have been undertaken without the co-operation, support and contributions from a number of institutions and individuals, especially the Ministry of Education, Youth and Sports (MoEYS), the World AIDS Foundation and UNESCO in Cambodia.

We are grateful to the key staff of the MoEYS School Health Department for their professional effort, time and dedication to the evaluation.

The evaluation team wishes to thank HE Mr Tol Lah, Deputy Prime Minister and Minister of the MoEYS and HE Mr Im Sethy, Secretary of State of the MoEYS for their guidance and support and Mr Etienne Clement, Representative of UNESCO in Cambodia for his strong support to the HIV/AIDS/STDs Prevention Education Programme for Secondary Schools in Cambodia. Our profound gratitude is expressed to the Fondation Mondiale Sida/World AIDS Foundation for its valuable financial assistance – without this support this long and sometimes difficult project could not have taken place.

We gratefully acknowledge the testing and interviewing teams, key staff of the School Health Department, who carried out their jobs in the field with the target groups with interest and who were patient with the challenges. Also we would like to acknowledge all host directors of provincial and district education offices for their contributions in the arrangement and co-ordination for field implementation of the evaluation.

Finally, we wish to express our sincere thanks to secondary school directors, parents, teachers and trainers and students of grade 9 and the upper grades who participated in the testing and interviewing processes with openness, enthusiasm and patience in their responses to our questions, which were sometimes difficult.

The Evaluation Teams

PREFACE

As Cambodia was returning to peace in the early 1990's, HIV/AIDS reached the war-torn Kingdom. With around 3.5% of the adult population aged from 15 to 49 already infected, the Kingdom of Cambodia is facing today the highest rate of infection in Asia. The epidemic has begun to move from vulnerable groups into the general population in the city, towns and rural and remote areas.

The Strengthening HIV/AIDS/STDs Prevention Education Programme for Secondary Schools in Cambodia was supported by UNESCO Cambodia in collaboration with the School Health Department of the Ministry of Education, Youth and Sports and was funded by the World AIDS Foundation and UNFPA. A series of training for teachers and students in secondary schools was conducted in 1998 up to 2000.

In order to evaluate the achievements and effectiveness of the programme, a medium-scale research project was designed and implemented in eleven selected provinces, which covered urban, rural and remote secondary schools in the Kingdom of Cambodia. It is the first time that this kind of research is conducted in the Cambodian education system, with the use of scientific methods and sophisticated design to acquire the most accurate information.

The primary purposes of the research were to assess the effectiveness of the project, and to provide recommendations for further improvement of the HIV/AIDS/STDs Prevention Education programme, especially the learning and teaching methodology. The secondary purpose was to build the capacity of governmental staff of the School Health Department in both research and statistical analysis.

This report summarises the quantitative and qualitative findings from testing and interviewing the target population in secondary schools: students of grade 9 and the upper grades, school directors, parents and teachers and trainers of HIV/AIDS/STDs prevention education. The study was conducted under the overall supervision of *Dr Supote Prasertsri*, Education Programme Specialist UNESCO Cambodia. *Mr Ung Bunthoeun*, a consultant for HIV/AIDS data analysis for UNESCO Cambodia prepared the qualitative report. *Mr Try Sothearith*, a statistics expert from the National Statistical Institute of the Ministry of Planning, prepared the quantitative report.

It is hoped that these findings will prove to be useful for institutions, agencies and donors who are involved in programmes aimed at reducing the HIV/AIDS pandemic in Cambodia and other parts of the world.

Etienne Clément
UNESCO Representative in Cambodia

EXECUTIVE SUMMARY

Strengthening HIV/AIDS/STDs Prevention Education for Secondary Schools in Cambodia

This report describes the results of a study of the project "Strengthening HVI/AIDS/STDs Prevention Education for Secondary Schools in Cambodia" which was implemented from mid 1999 to mid 2000. All grade 9 and grade 12 students received instruction during this time period. Scores obtained from pre- and post-tests of a sample of students in 11 provinces and municipalities and opinions collected through interview were analysed, using computer software.

1. Context

Cambodia is one of the poorest countries in the world, trying to recover from three decades of turmoil and conflict. With only 43% of the population of an economically productive age group (between 18-60) and 54.6% under 20 years of age, Cambodia has a high dependency ratio. There are few resources beyond families and communities to feed, educate and care for the school age Cambodian children and young people, due to a low national budget for education and other constraints.

1.1. **Situation:** Cambodia is reported to have one of the fastest growing HIV prevalence rates in the world. Results indicate that approximately 170,000 Cambodians are now infected with HIV, giving an adult HIV prevalence rate of around 3.5%. [1] The majority of these people are either parents, or are at an age where their economic productivity is at its highest and they are responsible for supporting family members.

1.2. **Economy:** In Cambodia, the primary economic sector is agriculture, which absorbs about 82% of the labour force and is still the economic base of the nation. The secondary economic sector engages less than 3% of the labour force due to a lack of industrial infrastructure. Most equipment and materials for local use are generally imported from abroad. It is estimated that the growth of the Gross Domestic Product (GDP) is between 4-5% per annum. The GDP per capita is US $286 per annum. The revenues collected by the Royal Government of Cambodia (RGC) are still very low and represent only about 11% of the country's GDP. The share of national budget for health and education is less than 10% of the national budget. Consequently, poor families in Cambodia spend over 25% of their income on basic health care and this has been reported as the main cause of landlessness, as farmers are forced to sell their land when coping with a health crisis in the family. Because of low government spending in education, local communities have to take a much greater responsibility in school construction.

[1] *Report on Sentinel Surveillance in Cambodia, NCHADS/MoH, 1999.*

1.3. **HIV/AIDS Education:** Since the transition from a one-party to a multi-party system in 1993, a series of reforms in education have taken place. The School Health Department (SHD) was established in 1998 within the Ministry of Education, Youth and Sports (MoEYS). The main tasks of this young institution are to include or integrate hygiene and health messages into the formal and non-formal education systems, including HIV/AIDS/STDs prevention education with assistance from non-governmental organisations (NGOs) and UN agencies, especially UNESCO, UNICEF, UNFPA, UNAIDS and WHO.

Thus, education is expected to play a key role not only in the country's rehabilitation, but also in preventing this man-made crisis of HIV/AIDS transmission. The majority of secondary school graduates are likely to play active roles in various sectors of Cambodian society in the near future. The introduction of HIV/AIDS/STDs prevention education to secondary schools now, therefore, is one of the most important investments for the post-war rehabilitation of Cambodia and for ensuring that trained human resources will not be lost through the HIV/AIDS pandemic.

1.4. **Target Groups:** In collaboration with UNESCO, the SHD first launched its HIV/AIDS/STDs Prevention Education for Secondary Schools Programme through various training operations with excellent results. A series of training was conducted from 1998 to 1999, targeted at 22 national trainers, 60 regional trainers, 720 upper secondary school teachers and 22,000 grade 12 students. At the beginning of 2000, 665 grade 9 secondary school teachers were trained in all of the six regional teacher-training centres (RTTCs) using a common curriculum and activities for HIV/AIDS/STDs and a life skills' programme. During the 1999-2000 school year, a total of 46,524 grade 9 students were selected as the main target group, due to the fact that many of them would not continue onto upper secondary school. Some might pass directly to grade 10, others would have to repeat grade 9 and many would dropout entirely from the education system. The would-be dropouts would therefore miss an opportunity to acquire knowledge, attitudes and skills about HIV/AIDS/STDs prevention if the subject was not taught at this time.

1.5. **Research:** Educational research was carried out in 11 target provinces and municipalities of the country and covered the capital city of Phnom Penh, other towns and rural and remote areas. The SHD was the implementing agency, which worked in close collaboration with UNESCO in Cambodia. A series of training courses were provided for the SHD evaluation staff as part of a capacity building exercise in educational assessment and evaluation.

1.6. **Purpose:** The primary purposes of the research were to assess the effects and effectiveness of the project "*Strengthening* HIV/AIDS/STDs *Prevention Education for Secondary Schools in Cambodia*" and to provide recommendations for further improvement of the HIV/AIDS/STDs Prevention Education Programme, especially the learning and teaching methodology. The secondary purpose was to provide capacity building for the government staff of the SHD in teacher training methods and basic education analysis and research.

1.7. **Objectives:** The main objectives of the evaluation were: 1) to assess the learning achievements of grade 9 students by comparing their knowledge and experience before and after instruction by means of pre- and post-tests; 2) to assess the effectiveness of the training activities in secondary schools by comparing the controlled and experimental groups of teachers (trained and untrained teachers on HIV/AIDS/STDs prevention education); 3) to raise the capacity building in educational research and data analysis techniques amongst the evaluation staff of the SHD, MoEYS and 4) to provide recommendations to planners and practitioners for improvements in HIV/AIDS prevention education.

2. Methods

2.1. The sample size was 2,543 students, which represented a percentage of the total of the 55,695 estimated grade 9-student population. These students were selected through the *simple random sampling* of about 6% of the total grade 9 student population, which was classified into three separate categories: those from the capital city, those from other urban areas and those from rural and remote areas of each of the targeted 11 provinces and municipalities. These sites were Phnom Penh and Preah Sihanoukville municipalities, Takeo, Kampong Cham, Kratie, Svay Rieng, Battambang, Banteay Meanchey, Siem Reap, Stung Treng and Ratanakiri provinces.

2.2. Coverage: In addition to the grade 9 students tested and interviewed as stated above, the research covered the following sampled size: 39 secondary schools of which there were approximately 149 classes, 134 teachers, 24 head teachers and 99 parents. Interviews were conducted with teachers, parents and selected groups of students.

2.3. Test Instruments: Various tools and techniques were used in the evaluation. First, a *standardised test* developed by the MoEYS was used in pre-testing and post-testing grade 9 students. In addition to grade 9 students, a pre-test was also used for 953 of the estimated 72,679 students in grades 10, 11 and 12 in order to measure knowledge, attitudes and skills amongst these students in the upper grades.

The second instrument was *questionnaires* or lists for targeted students, teachers, trainers, head teachers and parents. Interviewing and observation administered this set of instruments. These questionnaires were developed for each target group in order to acquire their opinion on the implementation of the programme by teachers, the involvement of head teachers toward the implementation of the programme and the co-ordination between schools and parents toward the HIV/AIDS/STDs prevention education programme at secondary school level. It attempted to measure the effectiveness of the programme and the awareness building provided for concerned parties in the secondary educational system. Training was conducted for evaluation staff on how to use these questionnaires.

2.4. Looping is one method for conducting the processes of testing and interviewing for research when there is a scarcity of human resources. Four loops were designed

according to the geographical condition in the country. *Loop one* was conducted in three provinces: Battambang, Banteay Meanchey and Siem Reap (the north west region). *Loop two* for the provinces of Kampong Cham, Kratie and Svay Rieng (the eastern region). *Loop three* for Phnom Penh, Takeo and Preah Sihanoukville (the central and southwest region). Loop four for Stung Treng and Ratanakiri (the north east region). All members in each loop (3 in each, with the exception of 1 member for loop 4) were responsible for taking and collecting all of the documents related to their fieldwork, in close collaboration with provincial and district education offices and for supervising the tests and interviews.

2.5. Staffing: Nine staff members of SHD were involved in the first round of testing and student training and ten staff in the second round of interviews with assistance from senior officers of the provincial and district education offices. One consultant for the UNESCO's HIV/AIDS programme was also involved and worked with these staff in both rounds. Post-appraisal facilitation training for these staff was conducted with assistance from another local expert in statistics and data analysis for analyzing quantitative data. Eight key staff received training in data collection, data entry and data analysis through the use of the Statistical Package for Social Sciences (SPSS).

2.6. Limitations:

① Only grade 9 students were fully involved in the testing and interviewing.

② Teaching for students' was conducted only during a 3-day-period, which was too short for students to reflect on what they had learnt from the programme.

③ The testing for the upper grades were done on different dates, three months after the grade 9 student training and eventually it was difficult to compare the knowledge gained by the different grades.

3. Findings

3.1. Students' Learning Achievements:

The achievement of grade 9 students learning was satisfactory based on the results of the pre- and post-test of standardised and additional tests. Before any instruction on HIV/AIDS/STDs prevention education was launched in all secondary schools in the country, all grade 9 students were tested for 15 minutes during the first day of learning. Then they learned all four units of the programme for 3 days. Finally, they were tested again for 15 minutes at the end of the programme.

The results of the student learning are presented below. For more detailed information, please see the section on data analysis in the quantitative report on student learning achievements.

Table 1: Students' Learning Achievements

	Standardised Test	
	Pre-test	**Post-test**
Mean	72.45	84
Median	75.25	87.50
Mode	90	95
Standard Deviation	18.09	14.40

(1) The high pre-test mean score (72.45) indicates that grade 9 students had quite good knowledge prior to being exposed to the project activities.
(2) The mean score increases from 72.45 in pre-test to 84 in post-test indicating a significant gain in learning achievements, despite the short-duration of training (3 days only).
(3) The number of students who gained a high score (90-100 score) increased from 400 students to 1,600 students in post-test, while those who gained low score dropped drastically.
(4) The female students' scores increased more than the average and more than their male counterparts.
(5) When compared by location, students from the capital city (Phnom Penh) achieved higher scores than their counterparts in rural areas and other cities.

3.2. Opinions of School Directors:

When asked about their general views of the programme, all school directors' felt that the programme was very good and they were very enthusiastic in having it taught in their schools. They thought that this programme was important for young people in their schools. In addition, they all expressed their interest in using this programme again next year not only for grade 9 students, but also for other grades. Of the general response of their teachers to the programme, they disclosed that most teachers were happy with it. They suggested that the HIV/AIDS/STDs Prevention Education Programme should be conducted every year in their secondary schools.

3.3. Opinions of Teachers & Trainers:

Regarding teachers' attitudes toward the programme, all of the teachers and trainers indicated they wanted to have the HIV/AIDS/STDs Prevention Education again in their schools. Although they recognised the student-centred activities of teaching/learning methods, they had experienced some difficulties in carrying out the activities due to the short period of time and crowded classes in Cambodia. Teachers were very satisfied with the programme, despite the short period of teacher training.

Due to cultural taboos, most of the women teachers experienced difficulties teaching sex education with the youths and they were reluctant to demonstrate how to use a condom properly in front of the students. They suggested that the students training period should be longer than three days, group work should be smaller, monitoring work should be more systematic and regular teachers who were

trained on HIV/AIDS should teach and be responsible for this programme at the school level.

3.4. Opinions of Parents:

The majority of parents felt that the programme was good and useful and they were very satisfied with the learning achievements of their children about HIV/AIDS at school. There was only the exception of one parent who was somewhat hesitant that the introduction of sex education in schools might have brought their children prematurely into early sexual activity, because their children were still too young and could not perhaps control his or her own behaviour. Due to poverty and being very busy in their daily jobs and routines, parents admitted that they rarely participated at the schools in discussions about the programme, but that they usually gave some advice on the risks of HIV/AIDS to their children at home, through the knowledge they have gained from the public media.

In Cambodia, talking about sex and such matters at home with children is a sensitive issue and thus they rarely raise it with their sons and daughters. Discussions on sexual issues generally take place between only married adults and inside the family setting. The parents suggested that the programme of HIV/AIDS prevention education should be conducted on a yearly basis, at least twice a year, at secondary school level and should be extended to all of the country, especially schools in rural and remote areas and for girls and women in particular.

3.5. Students' Feedback:

All of the grade 9 and upper grade students expressed through the interviews that they all liked the programme directed at secondary schools with a variety of positive comments or reasons. Compared to the upper grades, there were facts and content that the grade 9 students could absorb well. They showed their high commitment to prevent themselves from the risks of HIV/AIDS now and in the future. Speaking on how to protect themselves from the risks, they all expressed a variety of responses, especially using condoms and delaying sex. In their suggestions, they all recommended that the learning of HIV/AIDS prevention education should be conducted continuously and using smaller working groups, which would produce far better results. They suggested that it would be better to organise students into male and female groups with male and female trainers in order to avoid shyness between female trainers and students. This programme should also they suggested be integrated formally into the existing national curriculum for secondary schools. The training period should be extended longer for better understanding and enough time for the role-plays suggested in the activities. More activities should also be conducted and more teaching/learning materials should be provided and used.

3.6. The Student Books & Teachers' Guide on HIV/AIDS/STDs Prevention Education:

Student books and teachers' guides were given to all students and trainers, except for in the very remote provinces. It was reported that trainers did not use any extra learning/teaching materials, e.g. videotapes and posters, other than the student

books and teachers' guide provided by the programme, due to the absence of equipment and poor electricity.

The language used in both of the books/manuals was regarded as proper for the target population, including the pictures, graphs and activities. The teachers' guide was useful for teachers and teacher training, especially in regard to conducting activities. They all indicated that activity-based learning was easy for the students. Besides the two manuals, it was recommended that videotapes should be produced and distributed. Posters with lifelike images of HIV/AIDS/STDs symptoms or other information such as how to recognise HIV/AIDS/STDs should also be provided for more information and knowledge.

4. Recommendations

Based on these pilot experiments, the following is recommended:

4.1. Access to secondary education should be expanded to a larger number of school aged children from the current 14.4% to at least 50% by 2005.

4.2. Education for the prevention of HIV/AIDS/STDs should be taught as a separate subject for a period of at least 3 months amongst grade 9 and grade 12 students as they are the first to leave school, while students of other grades should receive instruction through an integrated curriculum.

4.3. Experience from this pilot study should be shared amongst all schoolteachers and administrators and other stakeholders.

4.4. More video or visual materials should be provided, distributed and utilised by schools.

4.5. Role-play and student-centred methods should be promoted because they allow for a greater student involvement.

4.6. Professional health personnel, social workers, HIV/AIDS activists and people living with HIV/AIDS should be invited to take part as valuable resource persons.

4.7. During the condom use demonstration, classes should be separated by sex. That is, female teachers should be required to supervise only female students and male teachers work with only male students.

4.8. The programme should also be implemented through non-formal education to include out-of-school youth and adults and expanded through mass media and peer group education.

4.9. All secondary school teachers of all subjects should receive awareness/methodology training as soon as possible. To date only 5% of secondary school teachers have received training in this important subject.

Chapter One

CONTEXT

The School Health Department (SHD) is one of 21 departments in the MoEYS. Created in 1998, the SHD is in charge of health education for both formal and non-formal education, especially about tobacco, diarrhoea and HIV/AIDS/STDs. There are 28 members of staff including teachers and medical doctors serving in this department. The SHD is a member of the technical board of the National AIDS Authority (NAA). Moreover, 2 people from SHD are focal points for the Provincial AIDS Committee (PAC) implemented by the National Centre for HIV/AIDS, Dermatology and STDs (NCHADS).

The main objectives of the SHD are to promote health education and practices in the education sector through training and the production of teaching/learning materials and to integrate health issues into the existing national curriculum.

To achieve these main goals, the SHD works and collaborates closely with other local and international agencies dealing with HIV/AIDS/STDs issues, especially UN agencies including UNICEF, UNAIDS, UNFPA, WHO and UNESCO. UNESCO in Cambodia has provided technical and financial support for the inclusion of HIV/AIDS/STDs prevention education for secondary schools in the country since the mid 1990s.

1. About the Report

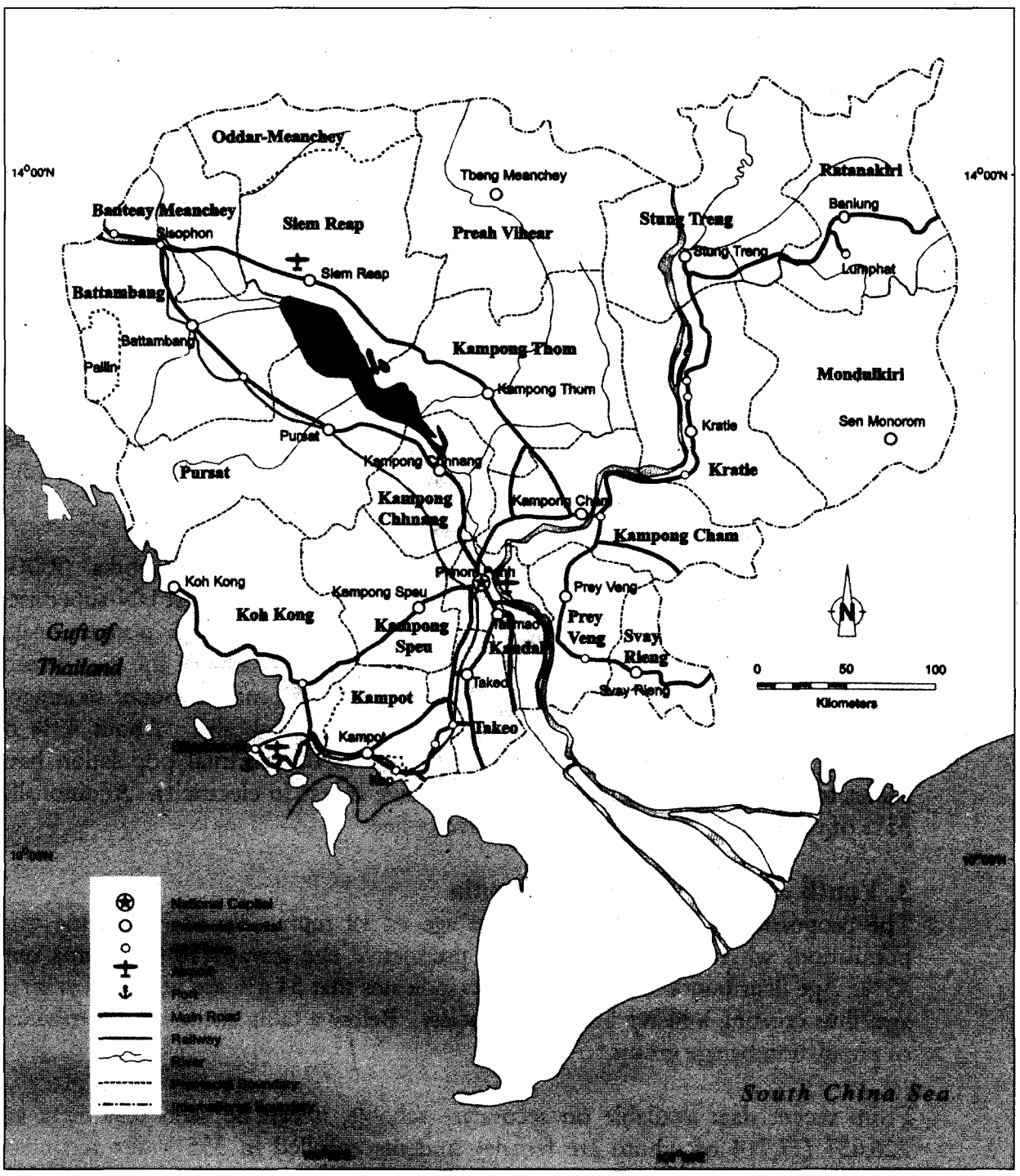
This report summarises the findings of a quantitative and qualitative evaluation of the process and effects of the HIV/AIDS/STDs Prevention Education Programme for Secondary Education in Cambodia. The report, containing both descriptive and statistical analysis, includes data and information collected from the testing and interviewing of students, teachers and trainers of grades 9 and upper grades, head-teachers and parents in communities around the sample secondary schools. Their recommendations are also taken into consideration for further action.

2. Cambodia's Socio-Economic Situation

Cambodia lies in the Indochina Peninsula of Southeast Asia, between latitudes 10.5 and 14.5 degrees N. It covers an area of 181,035Km Square. Geographically, the country is mainly flat in the central area and is surrounded by mountains. The country shares borders with Thailand in the north and west, with Laos in the north and with Vietnam in the east and to the south.

Cambodia is situated between the Tropic of Cancer and the Equator. The country has a warm and humid climate with an average annual temperature of 28.5o C.

Figure 1: Map of the Kingdom of Cambodia



There are two different seasons, a dry season from November to April and a rainy season from May to October.

Administratively, Cambodia is comprised of 20 provinces and 4 municipalities including Phnom Penh, which is the capital of the country. Provinces are subdivided into districts and each district is subdivided into communes and the latter into villages. Also the municipalities are subdivided into precincts and each precinct is subdivided into quarters and the latter into villages.

Cambodia has a total population of 11.4 million of which 51.78% are women. [2] The majority of the population live in rural areas and depend largely on agriculture or the primary sector (81.6%) based on traditional practices and the use of rudimentary tools. Women head approximately 25% of all households. Only 15.7% of the total population live in urban areas or towns. The secondary and tertiary sectors represent 2.8% and 15.6% respectively. The country has an estimated annual population growth rate of 2.4% and life expectancy is 56 years old. The infant mortality rate is 90/1000 live births and people using birth spacing programmes are 18% (from 1998 data). The number of infants receiving vaccinations against the six major diseases is 68% (from 1998 data). The adult literacy rate for men is 81.8% and for women 58% [3].

In spite of many efforts by the Royal Government of Cambodia (RGC), international agencies, and other NGOs to re-develop after the first UN-supervised national general election in 1993, Cambodia still has one of the poorest health systems in the world. The majority of health care occurs outside the government system and poor people can spend up to 25% of their income on routine treatment. There is no welfare system or health insurance in Cambodia. About 42% of women have never been to school and only 29% of the total population have access to safe drinking water and only 15% have access to electricity. Additionally, 35% of the population live below the poverty line.

3. Youth & Education in Cambodia

The proportion of children below the age of 18 represents 51.7% of the total population, whereas the economically productive age group (18-60) forms only 43%. Age distribution of the population indicates that 54.6% are under-20 years of age, thus creating a heavy burden on society. Below a table shows the distribution of population by age group.[4]

From recent data available on secondary schools, it can be seen that there are 226,057 (77,714 of whom are female) students enrolled in 355 lower secondary schools and 82,110 (27,454 of whom are female) in 132 upper secondary schools in Cambodia. Unfortunately, data also shows that the number of repeaters are 19,327 (4,729 of whom are female) in lower secondary level and 2,490 (558 of whom are female) in upper secondary.[5]

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[2] *According to the National Census of March 1998.*
[3] *Source: Education Statistics and Indicators, EMIS, Department of Planning, MoEYS, 1999.*
[4] *National Census, March 1998, Ministry of Planning.*
[5] *Source: Education Statistics and Indicators, EMIS, Department of Planning, MoEYS, 1999.*

Table 2: The Distribution of Children & Youths by Age in Cambodia

Age Group	Total		
	Both Sexes	Male	Female
All Ages	100	100	100
0-4	12.8	13.6	12.1
5-9	15.5	16.4	14.7
10-14	14.5	15.4	13.6
15-19	11.8	12.1	11.5
20-24	6.5	6.4	6.6
25-29	7.8	7.7	7.8

Because of poverty, the need for families to work and also the low levels of educational attainment, certain segments of the population perceive that education is not essential for themselves or for their family, especially in rural and remote areas. Girls are often enrolled less than boys and drop out more frequently due to the reasons that girls are needed for housework, to take care of younger siblings and are required to marry early. The attendance of girls in secondary schools is only 10% of the total of secondary school-aged girls. The big distances between villages and secondary schools have also been identified as another reason for low enrolment.

4. HIV/AIDS/STDs in Cambodia

Today, Cambodia is experiencing the fastest growing rate of HIV transmission in the Asia region, especially among its youth. In the meantime, great efforts of the RGC are being devoted to controlling the spread of water and mosquito-borne diseases, malnutrition, TB and Hepatitis B. An emerging threat, however, is beginning to pose a serious danger for the health and education sectors, namely the HIV/AIDS pandemic.

The first case of HIV in Cambodia was identified in 1991 with the first AIDS diagnosis made two years later. Currently, HIV prevalence is estimated at over 3.75% of the sexually active adult population. The overall total number of people thought to be living with HIV/AIDS was recently revised (downwards) in light of improved surveillance data. Reported condom use is increasing amongst different groups and it is being reported that some men are visiting sex workers less frequently. Nonetheless, sero-prevalence levels are high amongst particular groups, including brothel-based sex workers (42.6%), policemen (5.2%) and hospital in-patients (12.2%). HIV infection has been reported in all regions of the country, but with more concentration in urban areas. Presently, it is believed that 100 people become infected with HIV each day.

Several factors support the further spread of the epidemic in Cambodia: a fragile civil society and a traumatised population; extensive poverty; high levels of STDs and the very low availability of appropriate treatments; the extremely limited

availability of reliable, voluntary counselling and testing facilities (and consequently a large number of people who do not know they are infected); gender inequality; a thriving sex industry (around 70% of sex workers are migrants and 60% of men reported commercial sexual encounters within the previous month); groups of highly mobile people and an absence of minimum quality health and welfare services.

The government agency charged with responsibility for overseeing the Cambodian national response to the epidemic was established by Royal Decree in 1999 and is the National AIDS Authority (NAA), which comes outside the remit of the Ministry of Health. A national strategy for HIV/AIDS/STDs Prevention and Care Plan was developed for 1998-2000. Located within the Ministry of Health, the former National AIDS Programme became the National Centre for HIV/AIDS, Dermatology and STDs (NCHADS) and this provides technical support to other government agencies, national partners and to the provincial AIDS offices which are supported by the provincial health departments.

The national response is described as "multi-sectoral" reflected in the assistance of the National AIDS Authority and in its location outside the Ministry of Health, together with the existence of a multi-sectoral team situated within NCHADS. Apart from the Ministry of Health, a number of other ministries are responding to the epidemic with varying degrees of commitment and activity including the Ministries of National Defence, Education, Youth and Sports, Rural Department, *Interior, Women's and Veterans' Affairs and Planning.* Much remains to be done in terms of defining and implementing a truly multi-sectoral response. [5]

5. Existing Curriculum Related to HIV/AIDS/STDs

The existing secondary education curriculum already contains several topics, lessons or activities relating to HIV/AIDS/STDs, especially in Biology, Home Economics and Moral and Civics. Most lessons in these subjects offer some perspectives such as basic knowledge about HIV/AIDS/STDs and the risks of being sexually active. In spite of this effort, there is no real link between all of these lessons and it might also be difficult for both teachers and students to understand the global aspects and the risks of HIV/AIDS/STDs.

The project has adapted a resource package of materials produced by UNESCO, WHO and UNAIDS called *School Health Education to Prevent HIV/AIDS and STDs. This curriculum contains 4 units: Basic Knowledge on HIV/AIDS;* Responsible *Behaviour: Delaying Sex; Responsible Behaviour: Protected Sex* and *Care and Support.* The SHD and the Pedagogical Research Department have selected activities and adapted texts and illustrations for both the student books and the teachers' guide. A total of 300,000 copies of these books were printed and distributed to all secondary schools in the country.

[5] *Report on Sentinel Surveillance in Cambodia, NCHADS/MoH, 1999.*

6. Chronology of HIV/AIDS/STDs Prevention Education

❖ *1995:* Started working with the Department of Pedagogical Research (DPR), MoEYS, for the inclusion of the basic knowledge and risks of HIV/AIDS in the subjects of Home Economics, Morals and Civics and Biology, especially for grades 8 and 11 initiated by UNESCO. UNICEF and other local and international NGOs introduced the prevention of HIV/AIDS into non-formal educa tion curriculum for primary education and for local communities.

❖ *1998:*
- The SHD and DPR selected activities and adapted texts and illustrations for student books and a teachers' guide on HIV/AIDS/STDs Prevention Education for the use of grades 9 and 12 students and teachers.
- A Surveillance Working Group was established.

❖ *1999:*
- **Early:** Creation of the National AIDS Authority (NAA) chaired by H.E. Tol Lah, Minister of Education, Youth and Sports.
- **21 May:** Training of 22 national trainers assisted by NAA and supported by UNESCO, UNFPA and the World AIDS Foundation.
- **24 -28 May:** Training of 60 regional trainers at Phnom Penh, Kandal, Takeo, Prey Veng, Kampong Cham, and Battambang Teacher Training Colleges.
- **2-7 June:** Training of 720 upper secondary school teachers.
- **15-30 June:** Teaching of 22,000 students from grade 12.

❖ *2000:*
- **Early**: Training of 665 grade 9 (lower secondary school) teachers. Printing and distribution of 300,000 copies of student books and teachers' guide on HIV/AIDS/STDs Prevention Education directed at secondary schools.
- **22-25 May:** Teaching of 46,524 students from grade 9 nation-wide.
- **7-15 June:** Research and evaluation to assess the processes and effectiveness in the implementation of HIV/AIDS prevention education in secondary schools.

7. Evaluation Plan

The student training activities were implemented in all schools in the country and were directed at grade 9 students in lower secondary schools. The School Health Department (SHD) of the Ministry of Education, Youth and Sports conducted the activities with technical assistance from UNESCO. The pre- and post-tests were carried out from 23 to 25 June 2000.

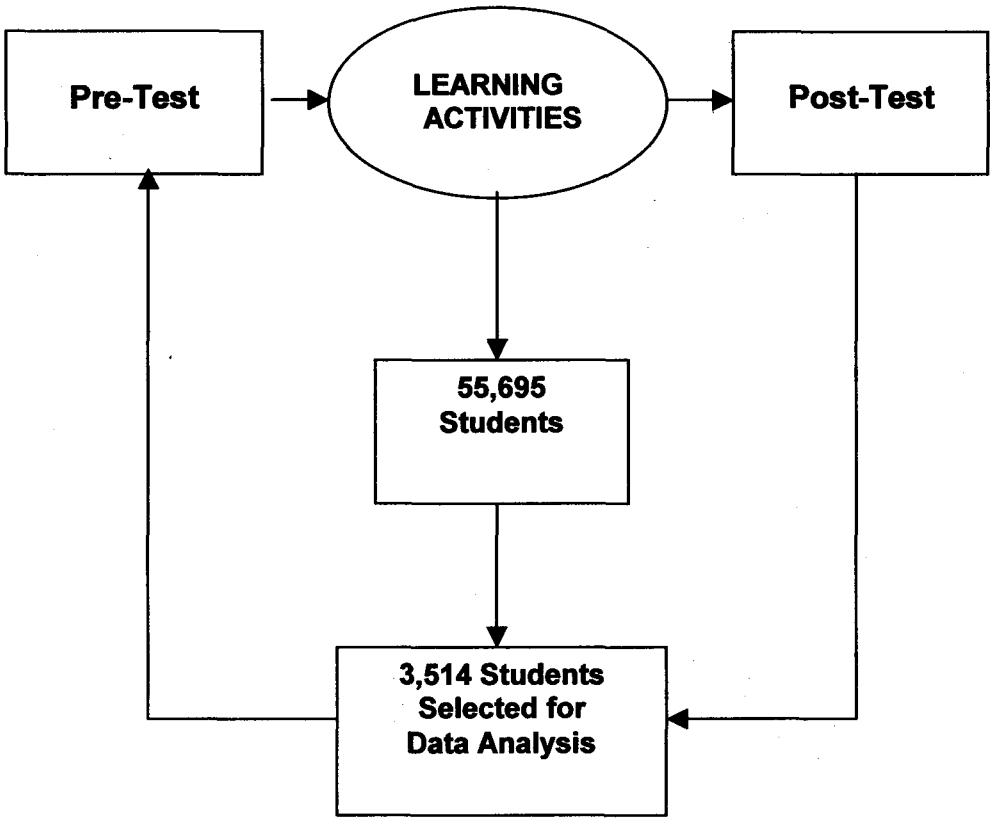
In conjunction with the student training and the distribution of student books and teachers' guides on HIV/AIDS/STDs prevention education, a formal evaluation was required to measure the learning achievements of all 46,506 grade 9 students by means of small-scale research in eleven selected provinces and municipalities, which covered schools in Phnom Penh, other urban areas and rural and remote areas.

The research activity involved first testing and then interviewing a selection of the population of grade 9 students, teachers, trainers, head-teachers and parents in each host school. To make sure learning achievements were fully measured, upper grade students were included in the process both in terms of testing and interviewing and they were regarded as experimental groups. A comparison between the control group (grade 9 students) and the experimental group was also conducted.

The stratified random sampling of 6% of the grade 9-student population was developed in the plan. A 20-item standardised test and a 55-item additional test were also developed, including questionnaires for the interviewing process. All tests and questionnaires were field-tested before the implementation of the research. (See Appendices).

In total 3,514 student respondents were involved in the research process of testing and interviewing in 11 provinces/municipalities in 23 districts/khans. This involved 29 secondary schools, 70 grade 9 teachers, and 64 grade 9 trainers for this activity in one area of Phnom Penh, 14 other urban areas, 10 rural areas and 3 remote areas. In addition, one head-teacher and 5 parents were interviewed in each host school.

Figure 1.7.1: Evaluation Process



Chapter Two

PURPOSE, DESIGN & METHODOLOGY OF EVALUATION

1. PURPOSES OF EVALUATION

The main purposes of the evaluation were: 1) to assess the effectiveness and impact of the project *Strengthening HIV/AIDS/STDs Prevention Education for Secondary Schools in Cambodia,* 2) to identify both the strengths and weaknesses of the programme and 3) to provide recommendations for further improvements of the programme.

2. OBJECTIVES

The objectives of the evaluation were agreed to meet the following criteria as stated below:

① To assess the learning achievements of students in grade 9 at secondary school before and after instruction by means of a pre-test and a post-test.
② To assess the training activities in secondary schools by comparing the students' learning achievement and socio-economic background (age, gender and location).
③ To assess the effectiveness of the collaboration and interaction amongst involved parties, namely head-teachers, teachers and parents in the implementation of HIV/AIDS/STDs prevention education at the school level.
④ To field-test the teachers' manual and student books on HIV/AIDS/STDs prevention education.
⑤ To upgrade the capacity of MoEYS staff in educational research and data analysis techniques, especially amongst staff of the SHD.
⑥ To share experiences and lessons learnt with other stakeholders both inside and outside Cambodia.

3. SAMPLING & SAMPLE SIZE

Although all 55,695 grade 9 students were required to participate in the 3-day programme, only 3,514 were selected as a sample size for this study. This sample was selected through a *stratified random sampling* of about 6% of the total population involved in the original scheme, which covered the urban, rural and remote areas of each of the targeted 11 provinces and municipalities.

The criteria for classifying schools into the above three types of locations was based on the Education Management Information System (EMIS), developed and established by the Department of Planning of the Ministry of Education, Youth and Sports. *Normally, the schools located in Phnom Penh fall into the first category: capital city - Phnom Penh. The schools located in large towns or cities are classified as urban schools or other*

towns. Schools located in isolation, that is, which are very difficult in terms of communication and transport, are classified as remote and rural schools.

4. TOOLS FOR RESEARCH

The first instrument developed by the project was a *standardised test* and this was used as an instrument for conducting pre-testing and post-testing.

The second instrument developed were the *questionnaires* for teachers, head teachers and parents completed through interviews and by observation. These questionnaires were developed for each target group of the population in order to acquire the necessary knowledge about implementation of the programme by teachers, the involvement of head teachers toward the implementation of the programme and the co-ordination between schools and parents toward the HIV/AIDS/STDs prevention education programme at secondary school level. (The questionnaires are attached in the Appendices).

The third instrument was the *checklist* or opinion list, which was developed and used to oversee the attitude and behaviour of grade 9 students after they had received their instruction. (The checklist is attached in the Appendices).

5. FIELD TESTING

All questionnaires and test sheets were field tested in two high schools in Phnom Penh, Boeung Trabek and Preah Yukanthor, during the first week of June 2000 as a means of training the evaluation staff of the SHD and in order to see the difficulties in wording of these papers. A couple of meetings were arranged in the SHD office to revise these papers and to clarify all the points identified. The field-testing of these was carried out using grade 9 students, teachers, head teachers and parents.

6. SELECTION OF PILOT SCHOOLS

Eleven provinces out of the total number of 24 provinces and municipalities in Cambodia were selected for research and evaluation purposes. These were: Phnom Penh and Sihanoukville municipalities, Kampong Cham, Kratie, Svay Rieng, Takeo, Battambang, Banteay Meanchey, Siem Reap, Stung Treng and Ratanakiri provinces. Of these provinces and municipalities, 21 districts and khans were involved in this evaluation from urban and also including rural and remote areas. For the names of the schools and the numbers of students involved in the process of testing and interviewing, please see Table 3 below.

7. STAFF MANAGEMENT

To facilitate implementation in the evaluation, 11 key staff members of the SHD were assigned to conduct the pre- and post-tests in 11 of the provinces and municipalities around the country from 23-25 May 2000 (round one), and 10 key staff in the same areas from 15-23 July 2000 (round two).

In round two, three loops were set up according to geographical conditions. Loop 1 covered Phnom Penh, Takeo and Sihanoukville (central and southwest regions). Loop 2 included Kampong Cham, Kratie, and Svay Rieng (eastern regions). Loop

3 covered Battambang, Banteay Meanchey and Siem Reap (northwest regions). All of these loops had three staff members each. Loop 4 was for Stung Treng and Ratanakiri (northeast regions) where only one staff member was assigned to co-ordinate this activity.

A local consultant was recruited to assist SHD to conduct these activities, including testing and interviewing, in Battambang, Banteay Meanchey, Siem Reap, Kampong Cham, Kratie, Stung Treng and Ratanakiri along with the staff of the SHD.

8. CAPACITY BUILDING FOR GOVERNMENTAL STAFF

❖ Six key staff from the School Health Department (SHD) were assigned to attend training in data collection, manipulation and analysis as part of a governmental staff capacity building programme in educational research and evaluation. A programme called *The Statistical Package for Social Sciences* (SPSS) was used for training in this activity.

❖ A desktop PC was purchased for use by the governmental staff.

❖ One statistician from the National Institute of Statistics (NIS) was contracted to train governmental staff in designing the computerised system for data entry and analysis.

Table 3: List of Schools & Number of Students & Teachers Selected as Sample

Province	School	Area	Grade 9 Students		Upper Grade Students		Teachers (grade 9)	
			Total	Selected	Total	Selected	Total	Selected
Phnom Penh	Bak Touk	Phnom Penh	15,911	469	32,414	248	959	22
	Tuol Toum Poung	Phnom Penh						
Takeo	Takeo	Urban	7,753	461	7,974	160	465	21
	Bati	Rural						
	Tramkhnar	Rural						
	Thnol Bambaek	Remote						
	Tramkak	Remote						
Sihanoukville	Mittapheap	Urban	1,155	74	1,504	21	397	6
Kampong Cham	Preah Sihanouk	Urban	11,313	1,345	9,504	190	681	29
	Boeungkok	Urban						
	Samdech Chuon Nat	Rural						
	Koh Samrong	Rural						
	Han Chey	Rural						
	Koh Mit	Rural						
	Tbong Khmom	Rural						
	Kanthak Bopha	Rural						
	Prey Toteung	Rural						
	Sreng Kim	Rural						
	Skun	Rural						
Kratie	Kratie Krung	Urban	1,911	93	1,566	34	117	4
	Thmor Krae	Rural						
Svay Rieng	Svay Rieng	Urban	4,405	214	3,974	40	265	8
	Brasot	Rural						
	Svay Chroum	Rural						
Battambang	Preah Monivong	Urban	6,125	307	7,555	114	370	15
	Ek Pnom	Rural						
	Samrong Khnong	Rural						
	Peam Ek	Rural						
	Prek Norind	Rural						
	Kauk Khmom	Remote						
Banteay Meanchey	Samdech Ov	Urban	3,215	224	3,731	59	196	11
	Mongkul Borey	Rural						
	Rohat Teuk	Remote						
Siem Reap	Angkor	Urban	3,420	230	3,813	53	206	14
	Bakong	Rural						
	Banteay Srey	Remote						
Stung Treng	Preah Reacbocheaneykich	Urban	363	50	471	17	22	2
	Srae Por	Rural						
Ratanakiri	Samdech Ov-Mae	Urban	124	47	173	17	7	2
TOTAL			55,695	3,514	72,679	953	3,685	134

Chapter Three

THE TEACHING & LEARNING ACTIVITIES

1. BACKGROUND

In an effort to avoid human suffering and risks for the next generation, Cambodian education officials have stepped up prevention measures by means of integrating a life skills' approach for HIV/AIDS/STDs prevention within education programmes.

The project had its inception in life skills during the 1995-6 school year through the development of a life skills' curriculum for grades 5-12 and the production of new teachers' guides and student textbooks in addition to the existing curriculum. In terms of training operations, the project was designed in 5 phases.

The Preparatory Phase (I): Involved the task of defining objectives at workshops for every level, the development of content, logistics and the preparation of training materials. It also involved the training of 22 national trainers recruited from several departments of the MoEYS who all attended a 2-week-seminar provided by specialists from NCHADS from 10 to 21 May 1999.

The Training of Trainers Phase (II): Involved the training of 60 regional trainers at regional level and was carried out at 6 regional centres: Phnom Penh, Kandal, Takeo, Prey Veng, Kampong Cham and Battambang from 24 to 28 May 1999.

The Teacher Training Phase (III): Involved the training of 1,385 teachers from secondary schools.

The Instruction Phase (IV): Involved the teaching of 22,000 grade 12 students in 1999 and 55,695 grade 9 students in 2000.

The Evaluation Phase (V): All grade 9 students were evaluated with the standard test and students of other grades were involved for opinions.

Table 4: The Number of National Trainers in Phase 1 & Regional Trainers in Phase 2 Provided for the Programme

Department	Phase 1	Regional TTCs	Phase 2
School Health	**11**	Phnom Penh	**10**
Pedagogical Research	**2**	Kandal	**10**
Teacher Training	**3**	Takeo	**8**
Secondary School	**2**	Prey Veng	**8**
Pre- and Primary School	**1**	Kampong Cham	**12**
Non-Formal Education	**1**	Battambang	**12**
Faculty of Pedagogy	**2**	Phnom Penh	**0**
TOTAL	*22*		*60*

2. TEACHER TRAINING

The main objective of the training was to equip teachers with methods in teaching life skills' for HIV/AIDS/STDs prevention education in the classroom. These activities were carried out in two stages in which a total of 1,385 secondary teachers participated. The first stage involved the training of 720 upper grade teachers from 2-7 June 1999. The second stage involved the training of 665 grade 9 teachers from 30 December 1999 - 2 January 2000. The two teacher training sessions were conducted at the Regional Teacher Training Centres. The pre- and post-tests to measure knowledge prior to and after the instruction were carried out with all of the teachers who attended both stages of the training.

2.1. Training Activities: Throughout the training courses, teachers learned to apply interactive instruction methodology. Also the teachers received basic information about the theory behind these methods and they were able to practice the activities and exercises central to the life skills' approach. All of the teachers gained experience in guiding group participation and discussion, role-play, case study, brainstorming, educational games, condom demonstration, questions and answers, lectures, lesson evaluation, student-centred activity and self-evaluation. Life skills' trainers taught all of the lessons and discussed the processes in a participatory manner. Participants implemented class demonstrations for teaching or microteaching purposes. At the end of the training courses, teachers recorded their impressions about the learning process, completed a verbal self-evaluation and made suggestions on how to apply these approaches to their daily teaching.

Table 5: The Participation of Teachers in the Training Programme by Stage & by Region

Regional Centres	*First Stage*	*Second Stage*	*Total*
Phnom Penh	**130**	**121**	**251**
Kandal	**115**	**121**	**236**
Takeo	**111**	**99**	**210**
Prey Veng	**75**	**102**	**177**
Kampong Cham	**135**	**117**	**252**
Battambang	**154**	**105**	**259**
TOTAL	**720**	**665**	**1,385**

2.2. Training Content: The teacher training courses focused on providing basic information on HIV/AIDS/STDs relating to knowledge, attitude and life skills in health education and prevention based on a life skills' approach in a classroom setting. The course contents included:

Table 6: Topics & Contents for Teacher Training

1. Introduction on the HIV/AIDS Situation in Cambodia and the World in 1998.
2. Basic information on HIV/AIDS.
3. Delaying and preventing sex.
4. Care and support for people living with HIV/AIDS.
5. Information about the five life skills identified as most important for HIV/AIDS prevention such as communication and self-awareness, value clarification, decision-making, assertion and goal setting.
6. The opportunity to teach all supplementary lessons in Biology, Civics, Khmer language and Home Economics.
7. The opportunity to discuss problems or HIV/AIDS-related issues during the process of teaching sensitive issues such as gender, sexuality, sex and HIV/AIDS.
8. Instruction on how to evaluate teaching methods, activities and impact on students as a whole.

During the teacher training, all trainees received various types of training materials, of most importance was the teachers' manual for teaching HIV/AIDS education. They also received other teaching aids, including one model of a penis per upper secondary school for condom use demonstrations, 10 packets of condoms per school and 2 videotapes produced by UNICEF: *Snooker* and *Quiet Place*, about youth and sexuality with a particular focus on risks and decision-making. In addition, two people living with HIV/AIDS were invited as resource persons for this training in some of the Regional Teacher Training Centres so that they could provide face-to-face question and answer sessions with the trainees, seeking an understanding about HIV/AIDS transmission and living with HIV/AIDS infection. The dialogue between them was very interactive, frank and was carried out without discrimination. There was also evidence of respect for each other. It perhaps should be noted that the two people living with HIV/AIDS (PLWA) were in their mid 30s.

It should also be noted that the teachers who participated in the training programme were selected from several disciplines, including Home Economics, Morals and Civics, Khmer Language and Biology.

3. STUDENTS' LEARNING ACTIVITIES

The Phase IV activities were conducted in 2 stages at different school levels. The first stage involved the teaching/learning of 22,000 grade 12 students from 15 to 30 June 1999. The second stage involved the teaching and learning of 55,695 students from grade 9 (of whom 12,756 were female) from 22 to 25 May 2000.

3.1. Grade 12 Learning Activities:

In stage one of this student learning, besides the grade 12 students, pre-service teachers studying at the Faculty of Pedagogy, the Regional Teacher Training

Colleges, the Provincial Teacher Training Centres and the Central Pre-School Training Centre were invited to participate in training for the HIV/AIDS/STDs Prevention Education Programme. The weaknesses identified at this stage were that the number of students in each class was too high (over 100 per class); there was a lack of participation by provincial education officials in some places and the learning timetable was inappropriate because it took place at the end of school year and this was the same time as national examinations were being prepared for. However, one strong point was the presence of provincial education and health officials, school directors and some NGO staff. Above all, the students expressed their satisfaction at the course and participated actively under the guidance of teachers. Some NGOs joined in at this stage as participants by providing some training materials to schools. Also, parents were very enthusiastic toward the inclusion of this programme in secondary schools.

3.2. Grade 9 Learning Activities:

During stage two, grade 9 secondary students received HIV/AIDS/STDs prevention education, which started from 23 until 25 of May 2000 in all parts of the Royal Kingdom. The local secondary school trainers, who were trained during phase 3, conducted the actual training. Twenty pre- and post- tests of were carried out during this period for all grade 9 students both before and after the training, including an additional 56 additional pre- and post-tests.

A total of 3,514 participants from grade 9 students were involved in the formal pre- and post- testing in 11 provinces and municipalities which covered the areas of Phnom Penh, other urban areas and also rural and remote secondary schools.

Table 7: The Number of Grade 9 Students Involved in the Pre- & Post-Testing in the Areas of Phnom Penh, Other Urban, Rural & Remote Schools

Region/Area	Grade 9 Students		Percentage (%)	
	Total	Female	Total	Female
Phnom Penh	469	86	13.35	8.37
Urban	1,317	525	37.48	51.12
Rural	1,706	411	48.55	40.02
Remote	22	5	0.63	0.49
	3514	**1027**	**100.00**	**100.00**

4. CONTENTS OF LEARNING

The curriculum is organised in 4 units: basic knowledge about HIV/AIDS, prevention, delaying sex, care and support to people living with HIV or AIDS and also contains 11 activities like the ones in the teacher training. Knowledge, attitudes and life skills are also part of the contents of learning.

Table 8: The Student Training Curriculum for Secondary Schools

INTRODUCTION	
Knowledge on the General Situation on HIV/AIDS in Cambodia and the World in 1998	
Unit One: Basic Knowledge on HIV/AIDS/STDs	
Lesson 1	HIV, AIDS and STDs.
Lesson 2	The Evolution of HIV.
Unit Two: RESPONSIBLE BEHAVIOUR: Delaying Sex	
Lesson 3	Reasons for Delaying Sex.
Lesson 4	Respect for Each Other.
Lesson 5	Responding to Persuasion.
Unit Three: RESPONSIBLE BEHAVIOUR: Protected Sex	
Lesson 6	The Condom.
Lesson 7	No Condom, No Sex.
Lesson 8	Responsible Behaviour.
Unit Four: Care and Support	
Lesson 9	Discrimination.
Lesson 10	Compassion, Tolerance and Support.
Lesson 11	Caring for People Living with HIV/AIDS.

5. CLASSROOM ACTIVITIES

Due to a shortage of classroom space in the Cambodian education system, teaching and learning took placed in a crowded environment. In spite of the large classes, all teachers tried to arrange the students into smaller groups with the help of 2 or 3 staff assigned by SHD who were responsible for separate provinces across the country.

During the student learning, teachers used many different teaching methods, which included semi-lecture, discussions both in plenary sessions and in small groups, condom demonstration by teachers and volunteer students, some role-plays and reading to the class by teachers and students for some activities.

Figure 3.3.2.1: Grade 9 students involved in testing by province

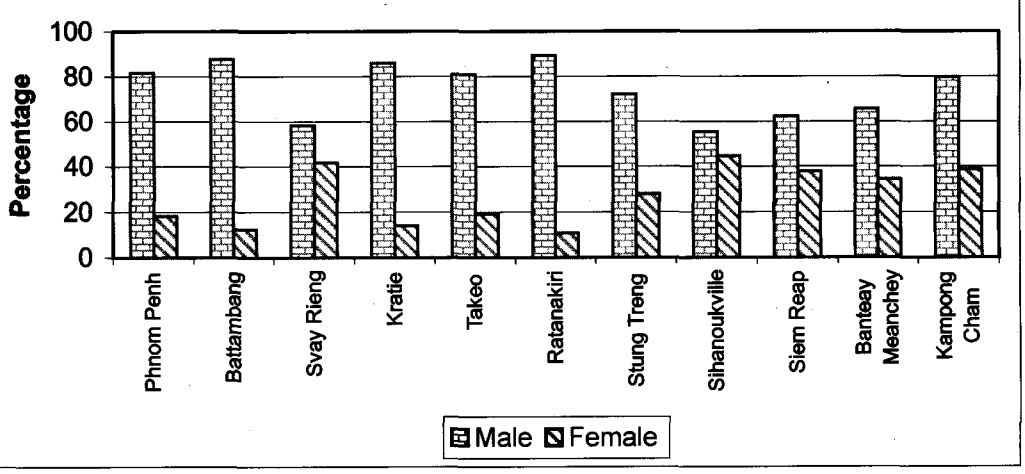


Table 9: The Number of Grade 9 Students Involved in the Pre- & Post-Testing in Selected Provinces & Municipalities in the Country

Province/ Municipality	Grade 9 Student		Percentage (%)	
	Male	Female	Male	Female
Phnom Penh	383	86	81.66	18.34
Battambang	179	128	87.54	12.46
Svay Rieng	136	78	58.3	41.7
Kratie	58	35	85.84	14.16
Takeo	373	88	80.9	19.1
Ratanakiri	42	5	89.36	10.64
Stung Treng	36	14	72.0	28.0
Sihanoukville	41	33	55.4	44.6
Siem Reap	143	87	62.17	37.83
Banteay Meanchey	147	77	65.6	34.4
Kampong Cham	949	396	79.56	20.44
	2,487	*1,027*	*70.77*	*29.22*

Chapter Four

STAGES OF EVALUATION

There were two different phases in the evaluation of this programme. In 1999, the instruction was directed at Grade 12 students for the reason that they were to be the first to leave school. During 2000, a second instruction and testing was carried out with grade 9 students. Then, the interviewing was conducted with grades 9, 10, 11 and 12 students, grade 9 teachers and HIV/AIDS trainers, head teachers of all host secondary schools and parents. In the second phase the testing of upper grades' students was also carried out.

1. TESTING PHASE

Eleven staff members of the SHD were assigned to work in eleven target provinces and municipalities. The study was focused on the areas of Phnom Penh and other urban, rural and remote secondary schools. This activity was conducted from 23 to 25 June 2000. A total of 3,514 out of 55,695 grade 9 students were selected as a sample group.

Figure 4.1.1: Students Involved in Tests

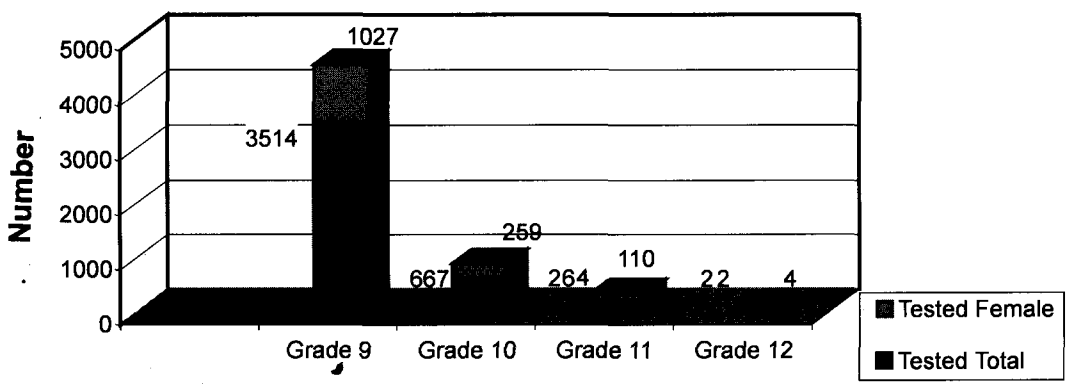


Table 10: The Number of Upper Grade Students Involved in the Testing

Target Groups Students	Tested Total	Tested Female	Percentage (%) Total	Percentage (%) Female
Grade 10	667	259	70.00	69.43
Grade 11	264	110	27.70	29.50
Grade 12	22	4	2.30	1.07
Total	*953*	*373*	*100.00*	*100.00*
Region/Area	**Upper Grades Total**	**Upper Grades Female**	**Percentage (%) Total**	**Percentage (%) Female**
Phnom Penh	248	106	26.02	28.42
Urban	445	181	46.70	48.53
Rural and Remote	260	86	27.28	23.05
Total	*953*	*373*	*100.00*	*100.00*

2. INTERVIEW PHASE

The interview phase was performed as the second stage of the process in the same eleven provinces and municipalities in the Kingdom. The SHD organised this activity in collaboration with UNESCO in Cambodia, which lasted from 18 to 23 July 2000. The interview team was divided into four loops of three members each (except for the Stung Treng and Ratanakiri loop). Apart from the interview of grade 9 students, an opinion survey was conducted for grades 10, 11 and 12 through informal testing about their knowledge, attitude and skills relating to HIV/AIDS/STDs prevention education and through a questionnaire in order to assess the needs of this programme. School directors, grade 9 untrained and trained teachers and parents of grade 9 students were also interviewed in schools and at their homes.

Figure 4.2.1: Students Involved in Interview

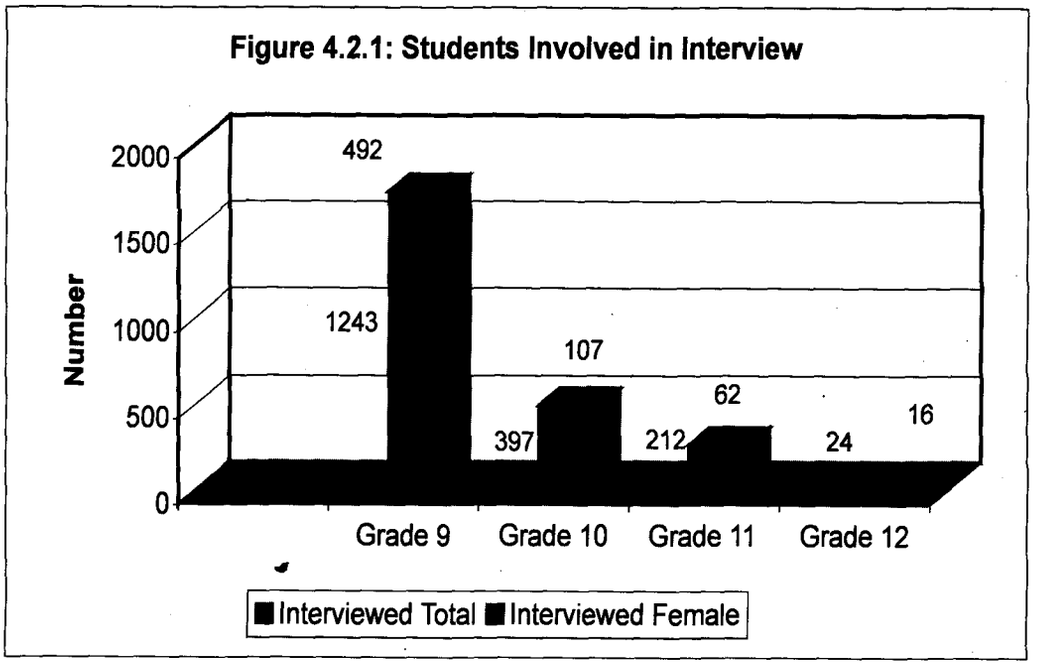


Table 11: The Number of Grade 9 & Upper Grade Students Involved in the Interview Activity

Target Groups	Students		Percentage (%)	
	Total	Female	Total	Female
Grade 9	1243	492	66.26	72.67
Grade 10	397	107	21.16	15.81
Grade 11	212	62	11.30	9.16
Grade 12	24	16	1.28	2.36
Total	*1876*	*677*	*100.00*	*100.00*

Table 12: The Number of Grade 9 & Upper Grade Students Involved in the Interview Activity Per Area & Province

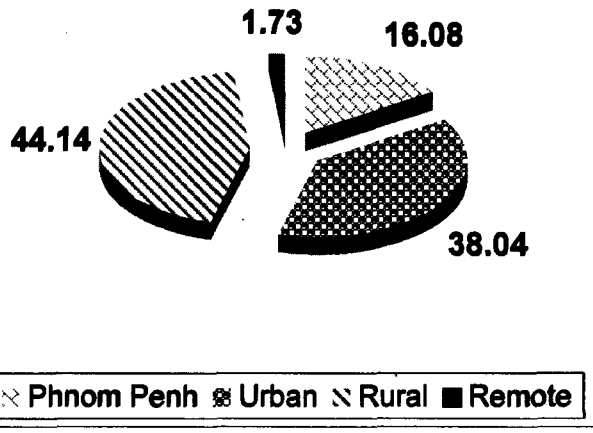
Region/Areas	Students Grade 9		Percentage (%)	
	Total	Female	Total	Female
Phnom Penh	284	131	22.85	26.63
Urban	376	156	30.25	31.71
Rural and Remote	583	205	46.9	41.67
Total	*1,243*	*492*	*100.00*	*100.00*
	Student Upper Grades		Percentage (%)	
	Total	Female	Total	Female
Phnom Penh	19	4	3.00	2.16
Urban	275	96	43.45	51.89
Rural and Remote	339	85	53.55	45.95
Total	*633*	*185*	*100.00*	*100.00*
Province/ Municipality	Grade 9		Upper Grades	
	Total	Female	Total	Female
Phnom Penh	284	131	19	4
Battambang	158	81	0	0
Svay Rieng	110	44	73	19
Kratie	69	16	34	9
Takeo	162	62	213	46
Ratanakiri	18	6	11	2
Stung Treng	0	0	19	4
Sihanoukville	28	15	21	9
Siem Reap	111	42	60	42
Banteay Meanchey	59	25	0	0
Kampong Cham	244	75	183	62
Total	*1,243*	*497*	*633*	*197*

3. DATA COLLECTION & MANIPULATION

All of the answer sheets and records from the interviews were collected and brought to Phnom Penh for data entry into computers. Six key staff members of the SHD, under the training and supervision of the National Project Director and with the technical assistance of two UNESCO consultants, were responsible in this process of collection, coding, verifying, marking and entry. It took a long time to analyse the information for accuracy and reliability. According to the plan, the marking of the pre-tests was carried out first and then the post-tests. All the scores or data were entered into the computer using the SPSS software programme.

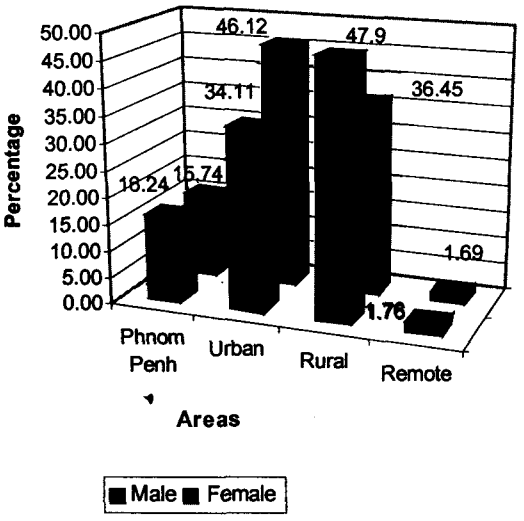
4. CHARACTERISTICS OF THE SAMPLE

Figure 4.4.1: Percentage Distribution by Region

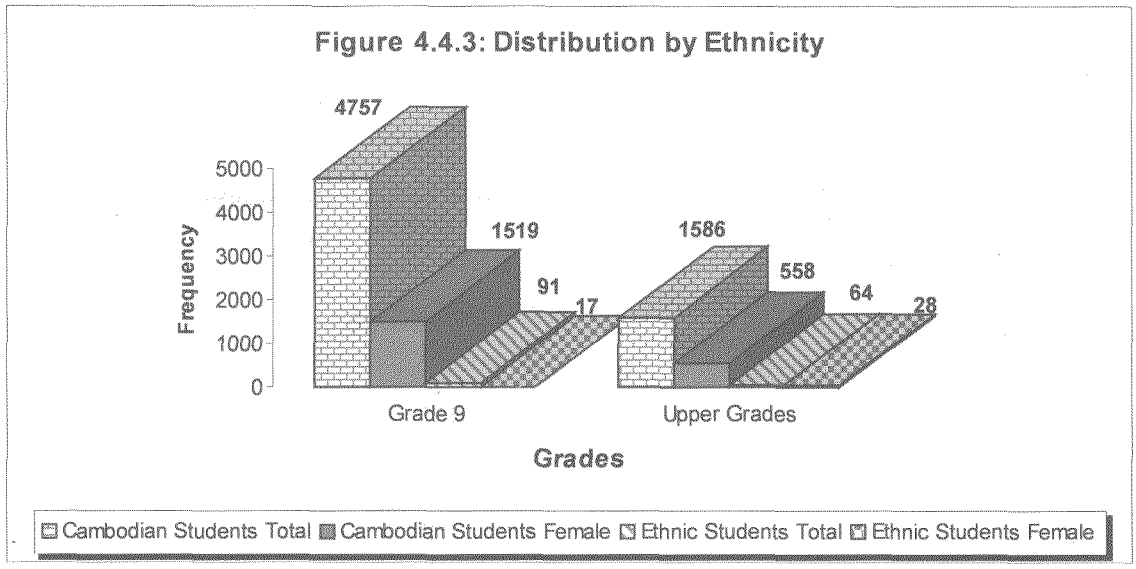


The graph shows that 38.04% of sample students came from urban areas, 16.08% from the capital city of Phnom Penh, 44.14% from rural areas and 1.73 % from remote areas, especially the hill tribe community areas.

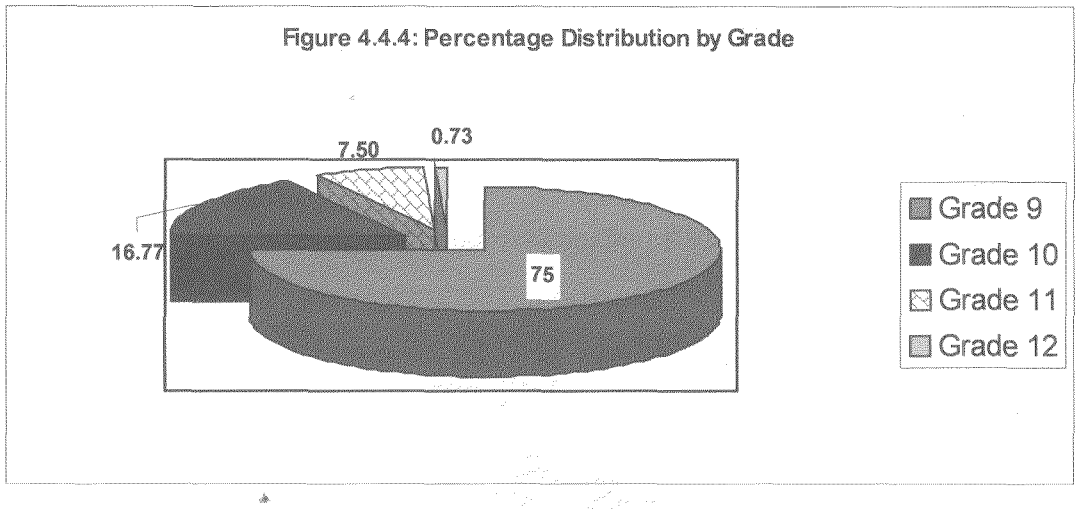
Figure 4.4.2: Percentage Distribution by Gender



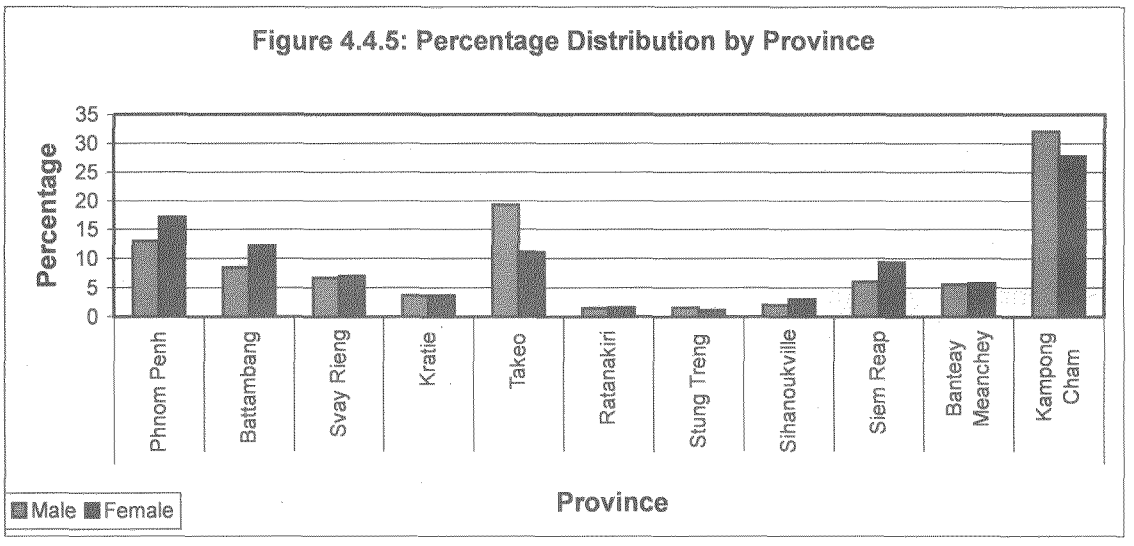
The graph above shows that in urban schools there were more female students than male (46.12% as against 34.11%) whilst in the rural schools there were more male students (47.9%) than female students (36.45%). The proportion by gender in Phnom Penh is more or less equal.



The graph above shows that the majority of the sample group were Khmer. Whilst those of ethnic groups were extremely small.



As shown in the graph above, 75% of students involved in the project belongs to grade 9, which is the terminal year of basic education in Cambodia.



5. LIMITATIONS OF THE EVALUATION

During the period of the implementation of the research, many problems were encountered:

- The last public holiday (for the Queen's Birthday) in June and a ceremony marking the reduction in the armed forces in Banteay Meanchey province led to the closure of secondary schools in this province.

- The campaign for the research was done too late due to the final examinations for grades 9 and 12 across the country during the 1999 and 2000 academic year.

- Communication was not smooth between the Ministry of Education, Youth and Sports and the Provincial Education Offices.

- Knowledge in research and interviewing of the key staff of SHD was limited due to their lack of basic knowledge and skills prior to the introduction of this programme. They only acquired basic knowledge and skills when they participated in this programme and the duration of that training was too short.

- The number of staff at the interview stage was too few and assistance from the Provincial Education Office staff in some remote schools was not adequate enough.

- The short period allowed for interviewing was not appropriate for the large numbers in the target groups.

- Many of the teachers who participated in the teaching of HIV/AIDS/STDs prevention education had never received training on the content and the methods of activity-based teaching, thus affecting the quality of the learning achievements of students. Only about 62 of teachers were trained under this pilot project.

- Many of the untrained teachers were not aware of the importance of pre- and post-tests. Because of this, some teachers' even encouraged students to read the textbooks before taking the pre-tests, resulting in biased scores for the evaluation and exclusion of their answer sheets in the analysis.

- The quantitative findings were based only on the grade 9-student sample. The results, therefore, cannot be generalised for other groups or grades.

- The analysis is limited to two factors, namely the sex and location of students, whilst many other important factors were not included due to a number of reasons. Characteristics of teachers were not included either.

Chapter Five

LEARNING ACHIEVEMENTS: THE QUANTITATIVE ANALYSIS

1. Introduction

Although all 55,695 grade 9 pupils in all public schools in Cambodia were required to attend the training courses on HIV/AIDS/STDs prevention education in mid 2000, only a total of 3,514 grade 9 students were selected as a sample for the study. Since many of the answer sheets did not meet the criteria, test results from only 2,543 pupils, or an equivalent of 5.6 % of the Grade 9 pupils, were finally selected for the quantitative analysis.

Data used for the analysis was collected by education officials and secondary school teachers, who were assigned as examiners by the Ministry of Education, Youth and Sports. This data includes scores from the tests of students' knowledge, attitude and life skills. Besides this, the test also sought to understand a number of factors relevant to pupils' behaviours and relevance to the contents and process of teaching and learning about HIV/AIDS/STDs prevention education.

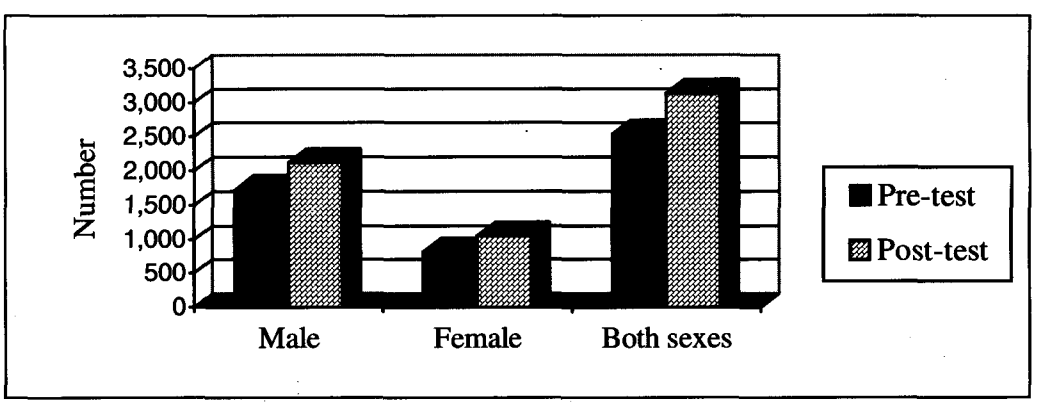
2. Characteristics of Pupils/Respondents

Gender Out off the total of 2,543 respondents included in the pre-test, girls accounted for 33.2% (816 female pupils) and boys for 66.9% (1,727 male pupils). In the post-test after the training programme, a total of 3,136 pupils were interviewed in groups, which included 2,121 boys (67.6%) and 1,015 girls (32.4%).

Table 13: Respondents by Sex

	Male		Female		Both sexes	
	Number	Percentage	Number	Percentage	Number	Percentage
Pre-test	1,727	67.9	816	32.1	2,543	100.0
Post-test	2,121	67.6	1,015	32.4	3,136	100.0

Figure 5.1.1: Respondents by Sex



3. Location:

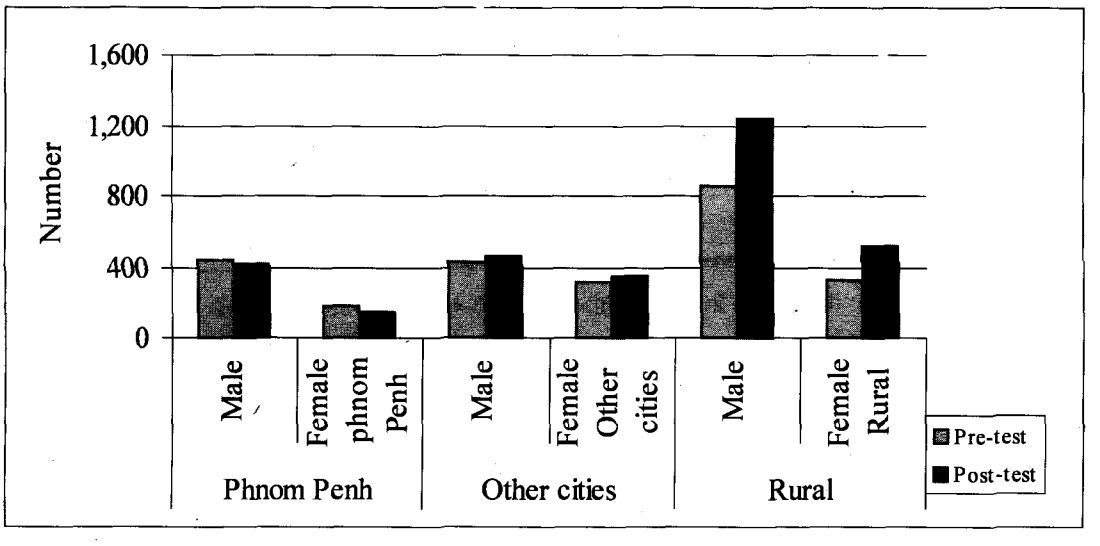
A total of 11 provinces/municipalities were selected and treated as sampling units representing the whole country.

There were three types of areas: (1) the capital city of Phnom Penh, (2) Other Cities/Urban Areas and (3) Rural Areas were selected as sampling variables for the study in order to have a picture of respondents' socio-economic characteristics by geographical conditions.

Table 14: Respondents by Location

	Phnom Penh		Other Cities		Rural areas	
	Male	Female	Male	Female	Male	Female
Pre-test	442	178	432	315	853	323
Post-test	418	149	463	349	1,240	517
Total	860	327	895	664	2,093	840

Figure 5.2.1: Respondents by Location



Consequently, it was decided that this social aspect of location, which had strong policy implications for the planning and implementation of the HIV/AIDS Prevention Education Programme by location be clearly examined and analysed in the study. If Phnom Penh and other towns were considered as one category of the classification, the rural segment of respondents could be investigated more closely. Details of respondents by location is given in Table 14 and Figure 5.2.1.

4. Standard Test on Knowledge, Attitude & Behaviour (Life Skills), or KAB about HIV/AIDS/STDs

A standard test was developed as an instrument to measure the level of basic knowledge, attitude and behavioural skills. This test was divided into three categories: knowledge, attitude and behaviour (or life skills). The knowledge test measured the basic knowledge about AIDS symptoms, results of blood sample testing and prevention measures against HIV/AIDS. The attitude test aimed at finding out what respondents' reactions toward HIV/AIDS victims were, about prevention or cautious attitudes, implications of having sex and feelings toward HIV carriers and people living with AIDS. The behavioural test measured knowledge and skills in prevention behaviours, including delayed sex, benefits

and methods of using condoms, ways to care for people living with HIV/AIDS and self-confidence when approached for or engaging in sex.

The standard test contained three major sections as mentioned above. Ten questions were on knowledge, five others on attitude and the remaining ones on life skills. Results of the pre-test and post-test are shown as follows.

5. Scoring

The test had 20 items and it was divided into 3 sub-components: knowledge, attitude and life skills. The maximum score for these three sub-components was 100 points or 5 points for each correct answer.

Figure 5.3.1: Respondents & Level of Score Under Standard Test

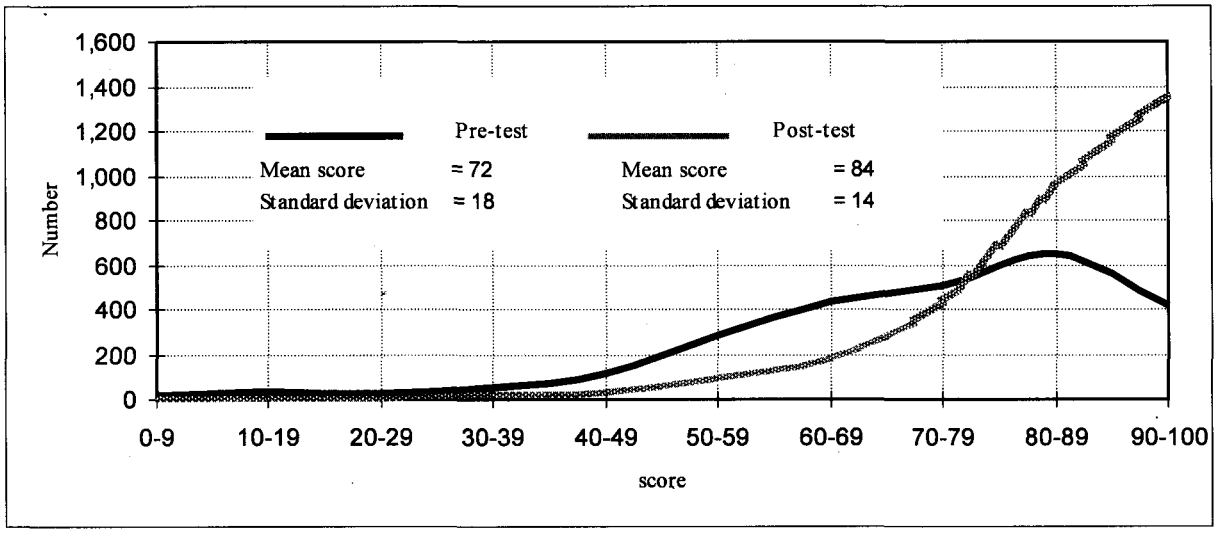


Figure 5.3.1 above gives several findings between the pre-test and the post-test: firstly, the mean scores rises from 72 to 84 and the standard deviation from 18 to 14. The high pre-test scores of 72 also indicates most students had accumulated some information and knowledge about HIV/AIDS prior to attending the three-day course. Secondly, the number of students who achieved high scores rose drastically between the pre-test and the post-test. Only 400 students gained the highest score of between 90-100 in the pre-test, but the number increased to 1,600 students in the post-test. Those who received a medium score of 70-79 remained more or less the same, which was about 500 students. The number of those who gained a low score of 50-59 dropped from 300 to 100 students.

The curve of scores rises to its maximal stage. The curve rose drastically when respondents' scores climbed from 60 points and upwards with a mean score of 84 points, whereas the mean score during the pre-test was only 72 points and the curve rose slightly when respondents' scores ranged from 80 to 89 points and then sharply moved downwards when nearing its maximal stage. Hence, one can observe that the training programme yielded positive results when compared with respondents' level of knowledge about AIDS prior to the introduction of the training programme into classes.

6. Scoring to Define Level of Knowledge, Attitude & Behaviour (KAB)

Based on the results obtained, we can define the level of knowledge, attitude and behaviour (KAB) from the test through cutting off points as follows:

Low Level	: 0	to less than	50 points
Medium Level	: 50	to less than	75 points
High Level	: 75	up to	100 points

The study of level of KAB about HIV/AIDS based on cut-off points are illustrated below:

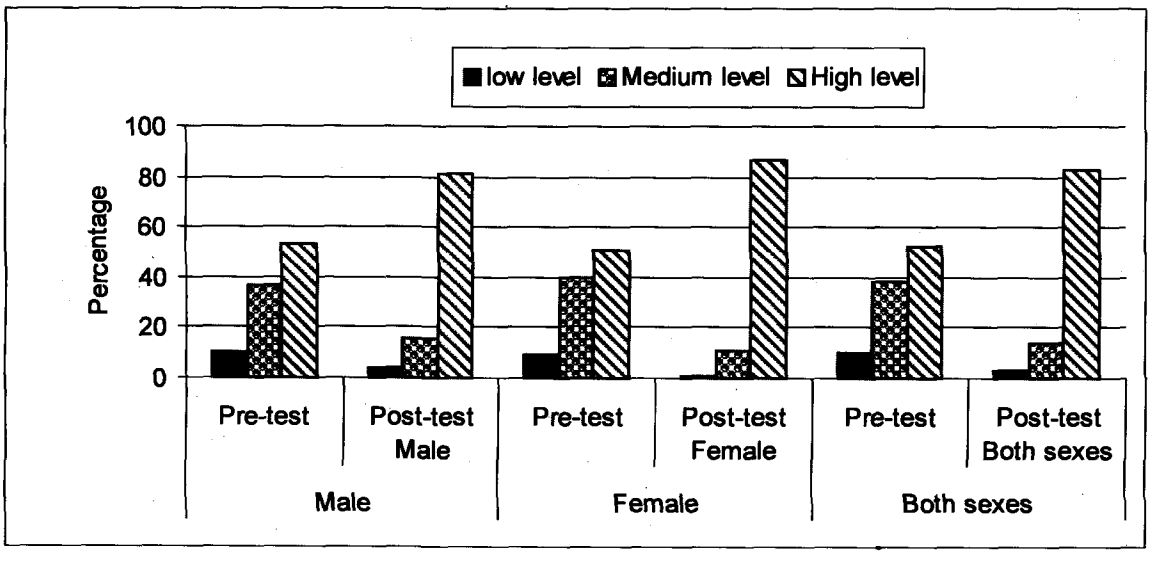
7. Level of KAB by Gender

The study identified that the percentage of respondents who had gained a high level of KAB about HIV/AIDS sharply increased from 53% before programme training to 81% after the training. The high level of KAB for female students increased from 51% for the pre-test to 87% for the post-test. It is interesting to note that the proportion of low levels of KAB amongst females decreased from 9% in the pre-test to only 1% in the post-test, whilst the rate of high level for males was also higher in the post-test. This suggests that girls paid much more attention to the subject than boys did.

Table 15:Percentage of Respondents by Level of KAB & by Sex

Level of knowledge	Male		Female		Both sex	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Low level	10	4	9	1	10	3
Medium level	37	16	40	11	38	14
High level	53	81	51	87	52	83

Figure 5.4.1: Percentage of Respondents by Level of KAB & by Sex



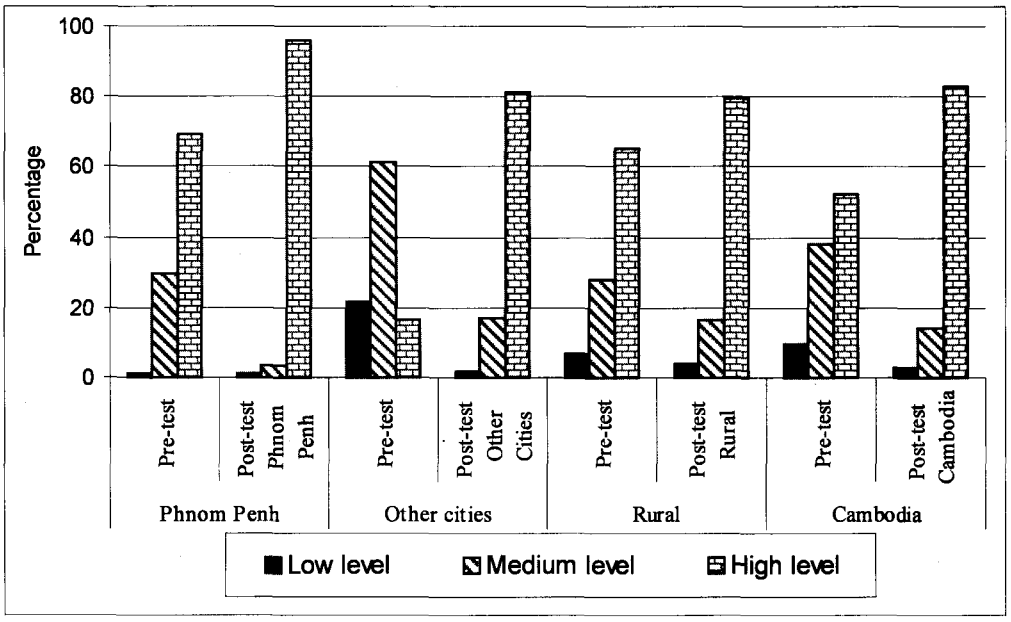
8. Level of KAB by Location:

Determination of location for the study was aimed at seeking an understanding of the level of KAB amongst pupils in various geographical areas, which could also reflect their respective socio-economic status. Its purpose was to study demographic and social dimension of respondents by three major geographic categories: Phnom Penh, other towns and rural areas.

Table 16: Percentage of Respondents by Level of KAB by Location through Standard Test

Level of knowledge	***Phnom Penh***		***Other Cities***		***Rural***		***Cambodia***	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Low level	1.1	1.1	21.7	1.7	6.8	4.0	9.8	2.9
Medium level	29.4	3.2	61.6	17.1	27.6	16.7	38.0	14.3
High level	69.5	95.7	16.7	81.2	65.6	79.3	52.2	82.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Figure 5.5.1: Percentage of Respondents by Level of KAB by Location through Standard Test



In Phnom Penh, results in both tests explained that the proportion of respondents who scored a Low Level was about 1% only. Respondents with a Medium Level accounted for 29.4% in the pre-test but decreased to only 3.2% in the post-test. The group with a High Level increased from 70% in pre-test to 96% in the post-test.

However, it is striking to note that in other towns there were only 17% of respondents with a High Level of KAB in the pre-test, while the majority of respondents belonged to the group of Medium and Low Levels of KAB.

Consequently, the positive impact of the training programme could be observed through a sharp increase in terms of the High Level group from 17% in the pre-test to 81% in the post-test.

9. Final Results of Tests with Correct Answers

In general, pre-test results were not quite positive, as only 67.7% of the total respondents could give 100% correct answers. The percentage of respondents having life skills was low as only 54.8% could give correct answers and the results about positive attitudes towards this issue was higher (78.3%).

Table 17: Percentage of Respondents Giving Correct Answers in Pre-Test & Post-Test

	Standard test	Knowledge	Attitude	Life skills
Pre-test				
Average	67.7	68.8	78.3	54.8
Standard deviation	22.3	24.7	19.2	16.3
Post-test				
Average	80.1	79.4	87.0	74.5
Standard deviation	15.1	18.9	9.9	9.5
Absolute growth	12.4	10.5	8.6	19.7
Relative gross growth (%)	22.4	27.4	12.6	17.4

Figure 5.6.1: Percentage of Respondents Giving Correct Answers in Pre-Test & Post-Test

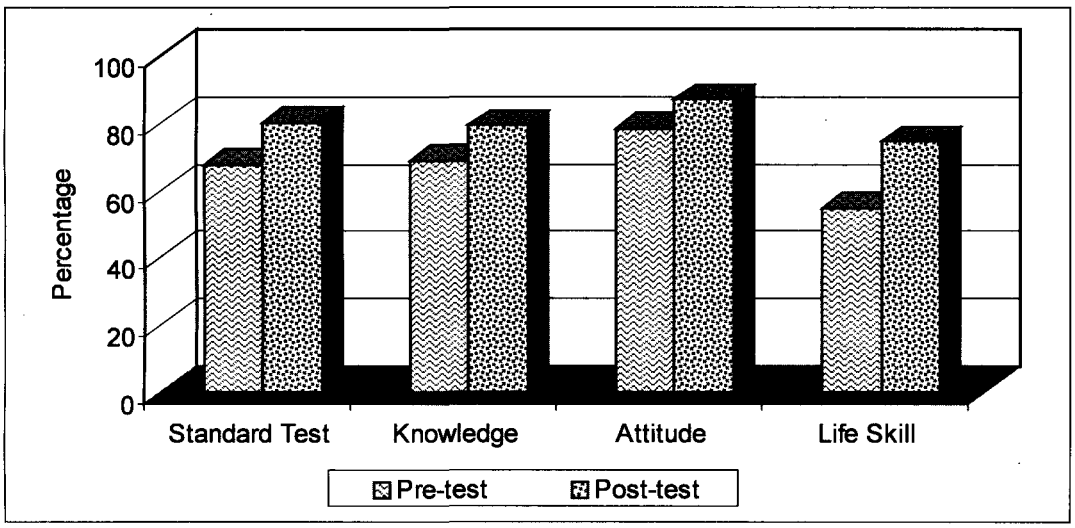


Table 17 and Figure 5.6.1 show that test results after the training programme were positive when compared to that of the pre-test.

About 80% of total respondents gave correct answers to questions in all categories. By comparing the final results between the two tests, correct answers to all categories of question increased from 67.7% to 80% for all three categories, or

from 69.8% to 79.4% for category of knowledge, from 78.3% to 87% for category of attitude and from 54.8% to 74.5% for category of life skills.

10. Final Results of Tests by Location

An important dimension of the study was to assess respondents' knowledge about HIV/AIDS by location that needed to be integrated in the government's and concerned organizations' future programmes and activities.

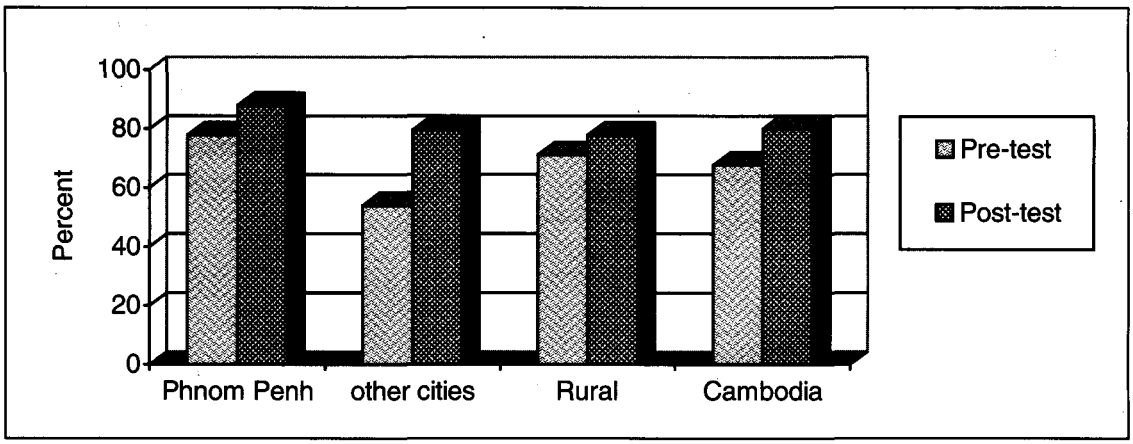
The pre-test drew a conclusion on knowledge in other cities but the situation was improved after the training programme.

The results of this distribution given in Table 18 and Figure 5.7.1 below suggest that the percentage of respondents giving correct answers in the pre-test was only 54% and this has increased to 80% after participating in the training programmme.

Table 18: Percentage Distribution of Respondents Giving Correct Answers by Location

	Phnom Penh	Other cities	Rural	Cambodia
Pre-test				
Average	77.8	54.0	71.1	67.7
Standard deviation	18.5	31.8	20.8	22.3
Post-test				
Average	88.0	79.5	77.8	80.1
Standard deviation	11.3	17.3	16.8	15.1
Absolute growth	10.2	25.5	6.7	12.4
Relative gross growth (%)	13.1	47.2	9.4	18.3

Figure 5.7.1: Percentage Distribution of Respondents Giving Correct Answers by Location



In general, the study found that the level of pupils' knowledge varied from one area to another. Results are shown in table 18 and figure 5.7.1 above.

11. Results Observed through Standard Test: Knowledge, Attitude & Life Skills by Sex

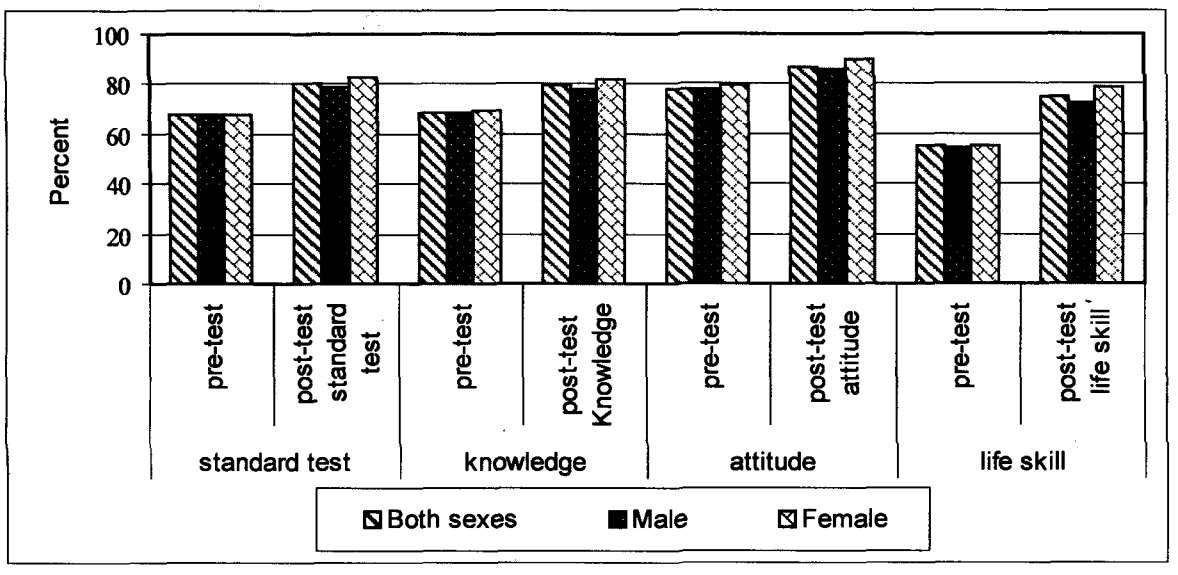
Striking observations on different degrees of knowledge achieved by pupils of both sexes can be made only after the training programme. By standard test prior to the training programme, the study found no big gaps of knowledge between boys and girls (68%).

In the post-test, female respondents, however, achieved better knowledge (83%) compared to male respondents (79%).

Table 19: Distribution of Respondents Giving Correct Answers in both Standard Pre-Test & Post-Test

	Standard test		Knowledge		Attitude		Life skills	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Both sexes	67.7	80.1	68.8	79.4	78.3	87.0	54.8	74.5
Male	67.5	78.7	68.8	78.3	77.6	85.7	54.7	72.5
Female	68.1	83.0	68.9	81.7	79.8	89.8	55.0	78.7

Figure 5.8.1: Distribution of Respondents Giving Correct Answers in both Standard Pre-Test & Post-Test



Results from both tests showed that female pupils gained more knowledge and benefits from the training programme than the males did in all aspects of the training programme.

Factors leading to the female respondents' higher performance are the fact that girls showed more concern over AIDS issues and were more serious in the training programme. On the contrary, male pupils, who as a matter of fact should understand all too well the cause and effect of AIDS, achieved lower levels of knowledge.

Table 20: Percentage of Respondents Giving Correct Answers in Both Tests

	Standard test	Knowledge	Attitude	Life skills
Both sexes				
Pre-test				
Average	67.7	68.8	78.3	54.8
Standard deviation	22.3	24.7	19.2	16.3
Post-test				
Average	80.1	79.4	87.0	74.5
Standard deviation	15.1	18.9	9.9	9.5
Absolute growth	12.4	10.5	8.6	19.7
Relative gross growth (%)	22.4	27.4	12.6	17.4
Male				
Pre-test				
Average	67.5	68.8	77.6	54.7
Standard deviation	21.8	23.8	19.0	16.9
Post-test				
Average	78.7	78.3	85.7	72.5
Standard deviation	15.5	18.9	10.8	10.5
Absolute growth	11.2	9.5	8.0	17.8
Relative gross growth (%)	16.6	13.8	10.3	32.6
Female				
Pre-test				
Average	68.1	68.9	79.8	55.0
Standard deviation	23.5	26.8	19.6	15.4
Post-test				
Average	83.0	81.7	89.8	78.7
Standard deviation	14.6	18.8	8.1	8.0
Absolute growth	14.8	12.8	10.0	23.7
Relative gross growth (%)	21.8	18.6	12.5	43.0

12. Respondents by Location

Pre-test results indicated that the rate of correct answers to life skills were found to be the lowest (40%) among respondents in the category of "other towns" when compared to all categories of location.

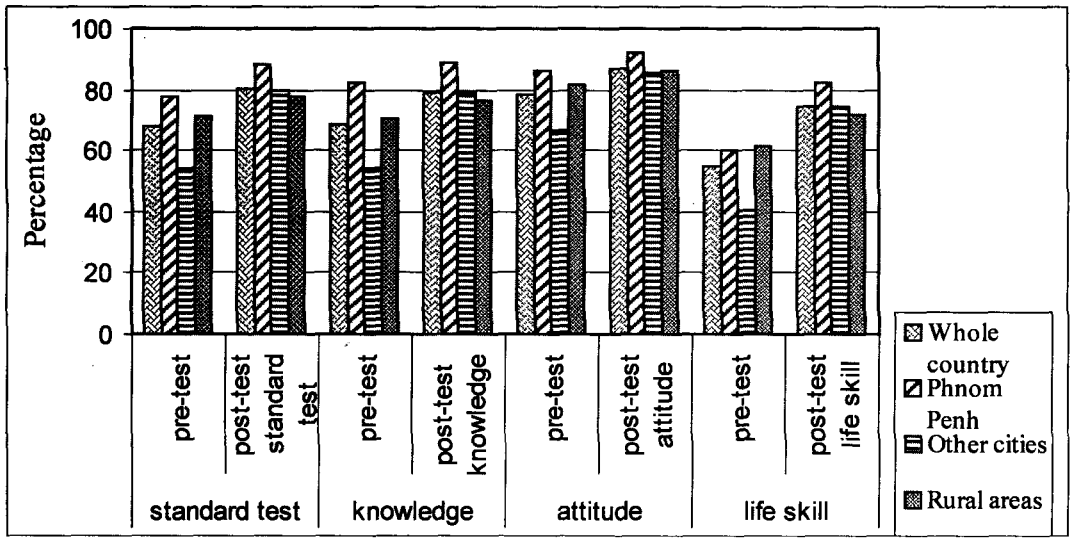
For their part, 61% of respondents in the category of rural areas provided correct answers to life skills. Better results were observed in the post-test amongst respondents in "other towns". The result of this distribution is shown in Table 21 and Figure 5.9.1.

Results of both tests, prior to and after the training programme, suggested that the percentage of respondents having life skills is always highest in Phnom Penh when compared to those in other cities and rural areas.

Table 21: Percentage of Correct Answers under Standard Test by Location

	Standard test		Knowledge		Attitude		Life skills	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Cambodia	67.7	80.1	68.8	79.4	78.3	87.0	54.8	74.5
Phnom Penh	77.8	88.0	82.5	88.7	86.0	92.3	59.9	82.2
Other cities	54.0	79.5	54.4	78.8	66.7	85.5	40.3	74.7
Rural areas	71.1	77.8	70.7	76.7	81.7	86.0	61.3	72.0

Figure 5.9.1: Percentage of Correct Answers under Standard Test by Location



Co-relations between locations and test results as shown in Table 21 and Figure 5.9.1 present positive performance after the training programme and are mostly associated with different economic statuses by each location. One should not overlook an exceptional case that the frequency of pre-testing conducted in other cities were less than those conducted in rural areas.

Briefly speaking, the study revealed that knowledge was significantly upgraded after the training programme.

Table 22: Percentage of Correct Answers under Standard Test by Location

	Phnom Penh	Other cities	Rural	Whole country
Standard test				
Pre-test				
Average	77.8	54.0	71.1	67.7
Standard deviation	18.6	31.8	20.8	22.3
Post-test				
Average	88.0	79.5	77.8	80.1
Standard deviation	11.3	17.3	16.8	15.1
Absolute growth	10.2	25.5	6.7	12.4
Relative gross growth (%)	14.6	32.1	23.7	22.4
Knowledge				
Pre-test				
Average	82.5	54.4	70.7	68.8
Standard deviation	17.2	36.6	24.1	24.7
Post-test				
Average	88.7	78.8	76.7	79.4
Standard deviation	14.5	20.5	20.9	18.9
Absolute growth	6.1	24.4	5.9	10.6
Relative gross growth (%)	7.4	44.8	8.3	15.3
Attitude				
Pre-test				
Average	86.0	66.7	81.7	78.3
Standard deviation	12.1	31.5	15.4	19.2
Post-test				
Average	92.3	85.5	86.0	87.0
Standard deviation	3.9	14.2	10.8	9.9
Absolute growth	6.3	18.9	4.3	8.7
Relative gross growth (%)	7.3	28.3	5.2	11.1
Life skills				
Pre-test				
Average	59.9	40.3	61.3	54.8
Standard deviation	16.9	19.5	15.8	16.3
Post-test				
Average	82.2	74.7	72.0	74.5
Standard deviation	7.5	14.2	10.8	9.5
Absolute growth	22.3	34.4	10.7	19.7
Relative gross growth (%)	22.3	34.4	10.7	19.7

13. Testing Interval Estimation of the Difference between Post-Test & Pre-Test

The Interval Estimation of the Difference between Two Means of Total Scores

Confidence interval estimation of the difference between two means of total scores in post-tests and pre-tests are $\overline{x_2} - \overline{x_1}$ to give an estimated standard error of the difference between two means, $S_{\overline{x_2}-\overline{x_1}} = \sqrt{\frac{s_2^2}{n_2} + \frac{s_1^2}{n_1}}$. The required confidence limits are given by $(\overline{x_2} - \overline{x_1}) \pm Z S_{\overline{x_2}-\overline{x_1}}$.

Since a 95% confidence interval is desired the confidence limits for $\overline{x_2} - \overline{x_1}$ are 7.9 and 16.0.

The Difference between Two Proportions in Post-Test & Pre-Test by Location & Sex

The interval estimation of the difference between two proportions in post-test and pre-test are $\overline{p_2} - \overline{p_1}$ and the estimated standard error of the difference between percentages, is

$$S_{\overline{p_2}-\overline{p_1}} = \sqrt{\frac{\overline{p_1 q_1}}{n_1} + \frac{\overline{p_2 q_2}}{n_2}}$$

Using the central limit theorem to ague that the sampling distribution of $\overline{p_2} - \overline{p_1}$ is approximately normal we establish confidence limits of $(\overline{p_2} - \overline{p_1}) \pm Z S_{\overline{p_2}-\overline{p_1}}$.

Table 23: Interval Estimation of the Difference Between Proportion of Correct Answers in Pre-Test & Post-Test by Location (Constructing a 95% Confidence Interval with the Confidence Limits in Percent)

	Standard test		Knowledge		Attitude		Life skills	
	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit
Cambodia	10.1	14.7	8.3	12.9	6.7	10.7	17.2	22.2
Phnom Penh	8.2	12.2	4.4	8.0	4.7	7.9	20.0	24.6
Other Cities	23.1	27.9	22.0	26.8	16.6	21.0	32.0	36.8
Rural Area	4.4	9.0	3.7	8.3	2.4	6.2	8.2	13.2

Table 24: Interval Estimation of the Difference Between Proportion of Correct Answers in Pre-Test & Post-Test by Sex (Constructing a 95% Confidence Interval with the Confidence Limits in Percent)

	Standard test		**Knowledge**		**Attitude**		***Life skills***	
	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit
Both sexes	10.1	14.7	8.3	12.9	6.7	10.7	17.2	22.2
Male	8.9	13.5	7.2	11.8	6.1	10.1	15.3	20.3
Female	12.7	17.1	10.5	15.1	8.1	11.9	21.3	26.1

Chapter Six

THE IMPRESSION OF PARTICIPANTS

A large volume of information was generated during the evaluation, but only a small portion is shown in this section. It highlights what participants felt about the programme's effects on students, parents and education personnel. However, through the interviews, all participants including school directors, teachers, parents and students now recognise that "HIV/AIDS the disease does exist in this world", which is quite different from the period of the early 1990s when many people thought that "HIV/AIDS is one kind of chronic syphilis and can be treated through traditional medicine" or they thought that "HIV/AIDS does not exist, it is only the propaganda of private companies to sell condoms and thus make a fortune". Now, they agree with the fact that they are very worried about the spread of HIV/AIDS everywhere and they are asking schools to educate their students and children about HIV/AIDS/STDs in order to prevent them from this man-made catastrophe.

1. OPINIONS OF SCHOOL DIRECTORS

Twenty-four school directors, including one female, were invited to provide comments. The results are as follows:

1.1. 96% of them expressed that by having this programme in their schools it was a very good initiative and they also showed high enthusiasm (87.5%) in teaching this programme. Also, they found this programme to be important for young people in their schools (91.7%). 66.7% of them wanted to implement this programme again next year.

Figure 6.1.1.1: The impression of school directors towards the programme

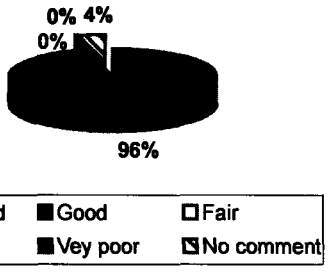
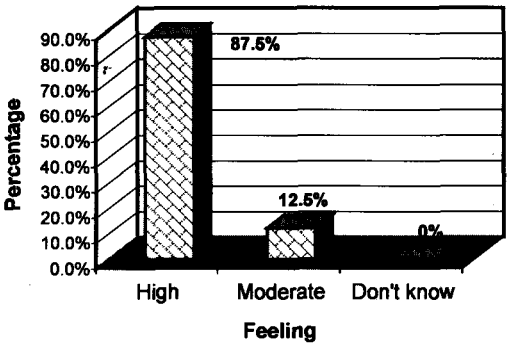
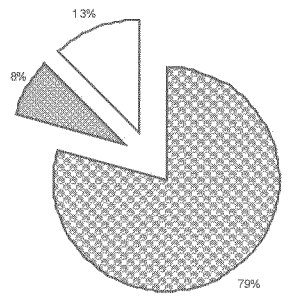


Figure 6.1.1.2: Enthusiasm of school directors towards the programme



1.2. Responding to the reaction of the community for the implementation of the programme in schools, 79.2% were positive (amongst teachers and educated parents) against 8.3% negative (amongst illiterate parents) and 12.5% "did not know" (amongst parents who were too busy with their jobs or businesses).

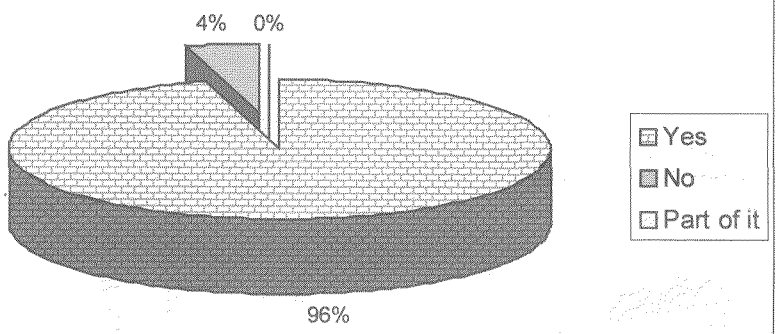
Figure 6.2.2.1: The community responses to the implementation of the programme

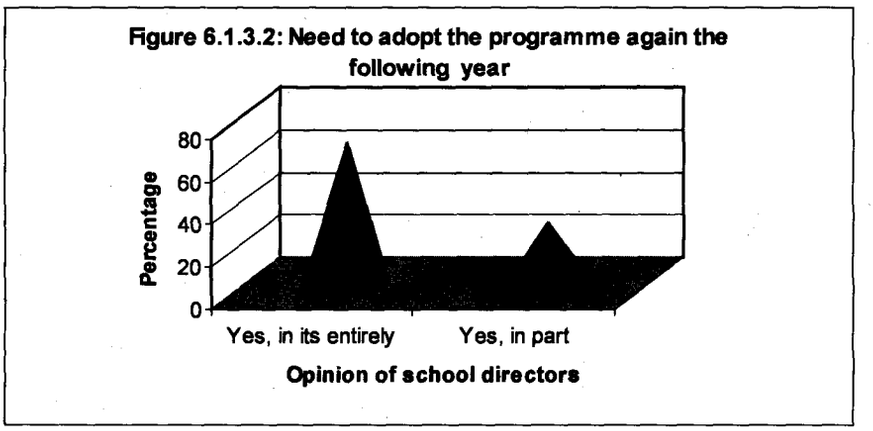


Positively Negatively Did not know

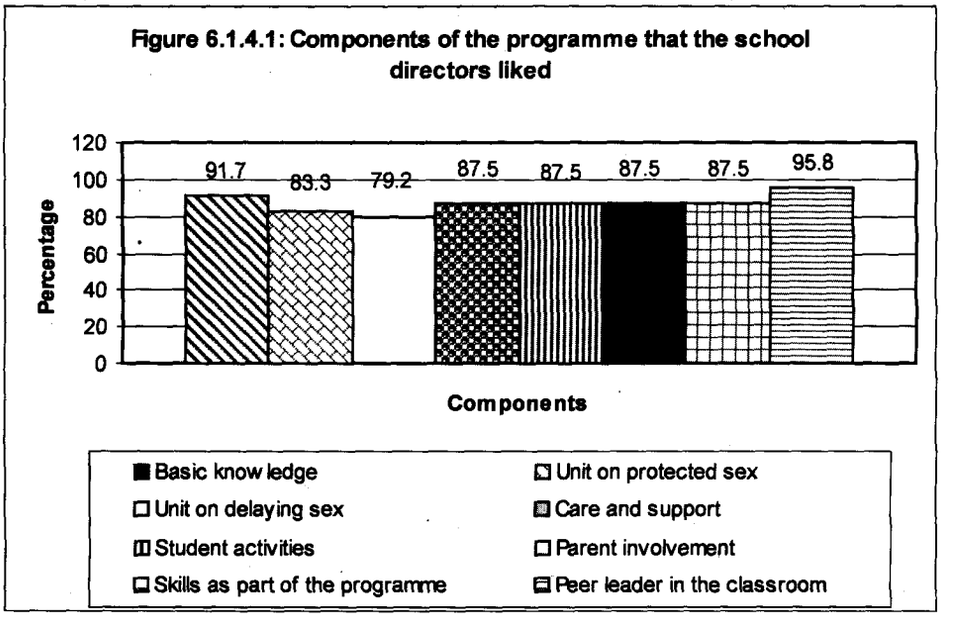
1.3. The teacher training on HIV/AIDS/STDs initiated by MoEYS was one of the main elements that ensured consistency between the implementation of the programme and the contents and methods of teaching/learning materials. The taboo and shyness of teachers and students, their limited knowledge on HIV/AIDS, the scarcity of trainers, and the barrier of traditions in sex education were factors that influenced the implementation of the programme.

Figure 6.1.3.1: Importance of the programme for young people





1.4. Preference towards contents: Of the particular components of the programme they liked most were Basic Knowledge Unit (91.7%), Protected Sex Unit (83.3%), Delaying Sex Unit (79.2%), and Care and Support Unit (87.5%). For the Student Activities and Parent Involvement both obtained an equal rating (87.5%) as the Life Skills parts of the programme (87.5%).

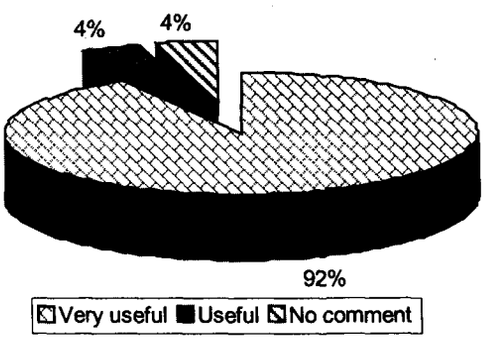


1.5. In the implementation of the programme, the school directors disclosed that they had received some comments from students about this programme as follows: 75% positive, 4.2% negative and 20.8% neutral. The students' comments expressed the need to learn more about HIV/AIDS and teaching methodology in terms of classroom management, small working groups and more interactive activities in each lesson or topic.

1.6 Relating to the teacher training, 91.7% of them said that it was very useful and that the length of the training period should be long enough for a good

comprehension of the 4 basic units. The training should be conducted every year and for all grades at secondary school. Trainers should be available in each school.

Figure 6.1.6.1: Usefulness of the programme for teacher training



1.7. Finally, the overall responses of teachers toward the programme were: 29.2% expressed their support or satisfaction, 12.5% said they needed more training on HIV/AIDS and 8.3% suggested the need to improve the curriculum and teaching/learning materials. 37.5% of the 24 school directors expressed no opinion.

2. TEACHERS & TRAINERS ATTITUDES

59 grade 9 teachers, including 11 female and 43 teacher trainers (19 were female) were asked to participate in the evaluation of the programme. Their opinions are summarised as follows:

2.1. It was found that 62.7% and 81.4% of teachers and trainers respectively wanted to teach this programme again in their schools. Amongst the contents, Chapter 3 on Sex Prevention was stressed with 51.2% of trainers and 42.44% of teachers. The other parts are Basic Information (48.8% of trainers and 37.3% of teachers, Delaying Sex (48.8% of trainers and 27.1% of teachers) and Care and Support (46.5% of trainers and 23.7% of teachers).

Figure 6.2.1.1: Need to teach the programme again at secondary school among trainers

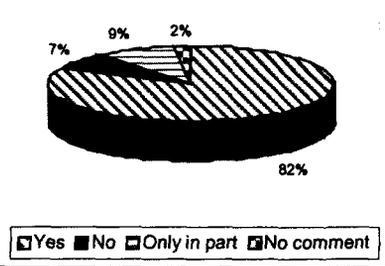
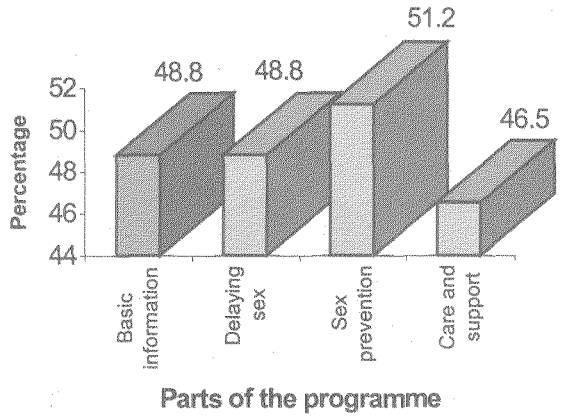
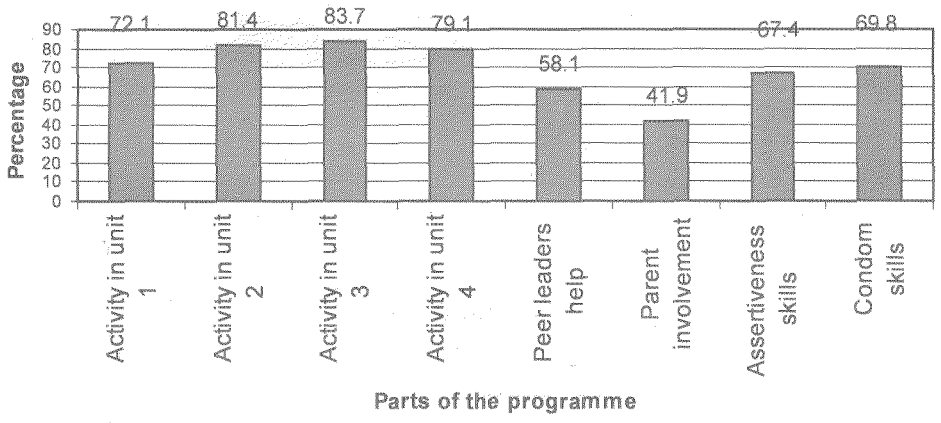


Figure 6.2.1.2: Parts of the programme needing to be taught again

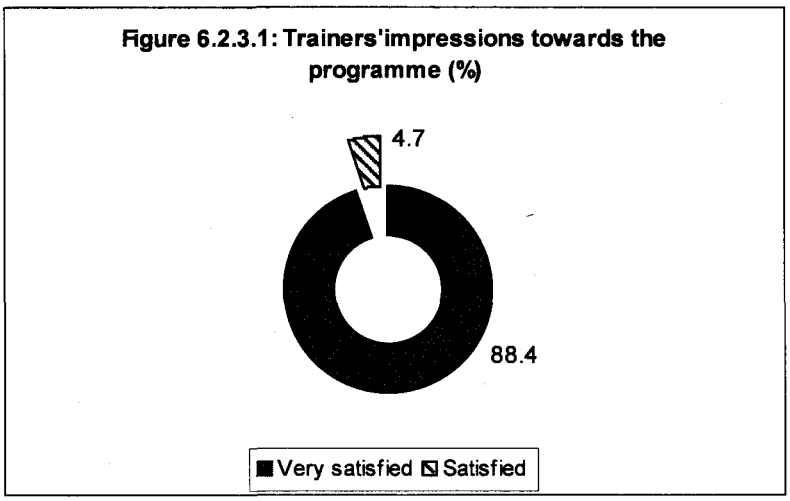


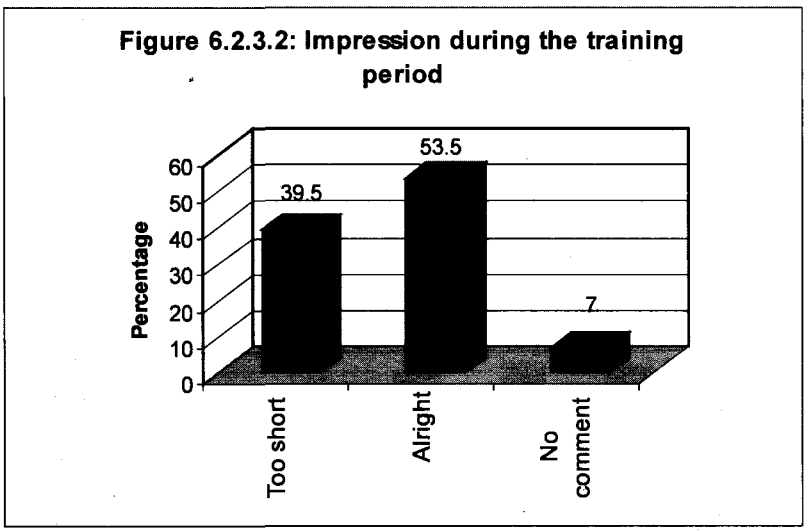
2.2. Asked to rate on the programme that teachers and trainers were most comfortable with, the findings showed that the activity in chapter 3 was the highest (83.7% against 23.7% for teachers), then in chapter 2 (81.4% against 22% for teachers) and in chapters 1 and 4 are 79.1% (25.4% for teachers) and 72.1% (15.3% for teachers) respectively. Regarding the skills introduced in the programme, 69.8% showed a rate for condom use skill and 67.4% for assertiveness skills.

Figure 6.2.2.1: Rating the parts of the programme the trainers were feeling the most comfortable with



2.3. Of the teacher training in phase 3, the trainers or trained teachers expressed their strong satisfaction (88.4%), 53.5% of them agreed that it was all right, not too long or too short. They said it was quite adequate enough for them in preparing themselves for teaching the programme (67.4%). Despite this satisfaction, they still need more training on HIV/AIDS (83.7%).





2.4. Regarding the teaching methods, about 79% of the trainers had used the pre- and post-testing for evaluating their students and approximately 65% did not change the existing pre- and post tests. In the activity session, they disclosed that 32.6% of them wrote some of the activities on the blackboard and about 30% of them did all or most of the suggested activities. For those with crowded classrooms, teachers usually read the contents and instruction for activities to the students (nearly 35% of them). Even though the findings showed that the trainers used the small group methods in their classes (about 72%), a number of teachers felt (18.6%) that they still faced difficulties in carrying out the activities and about 51% faced some difficulties when the teaching period was too short, the classes overcrowded and with the assignment of untrained teachers to teach HIV/AIDS to students.

Figure 6.2.4.1: Use of pre-, post-tests in the students' evaluation

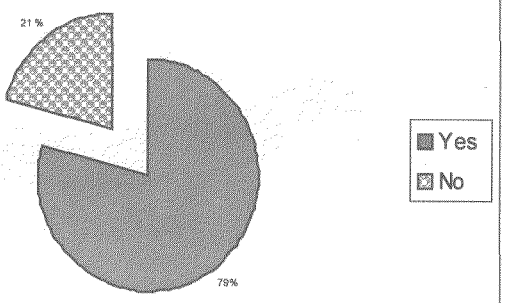


Figure 6.2.4.2: Training methods by writing activities on the blackboard

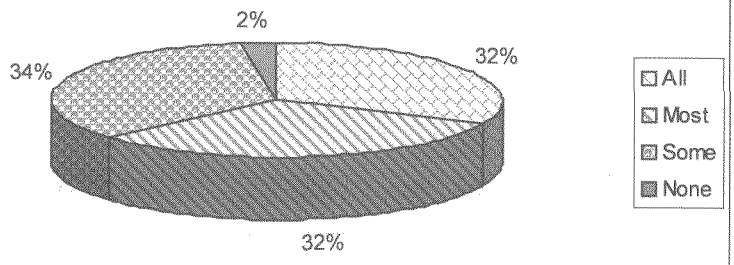
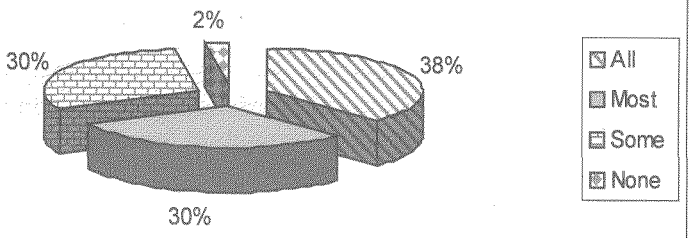
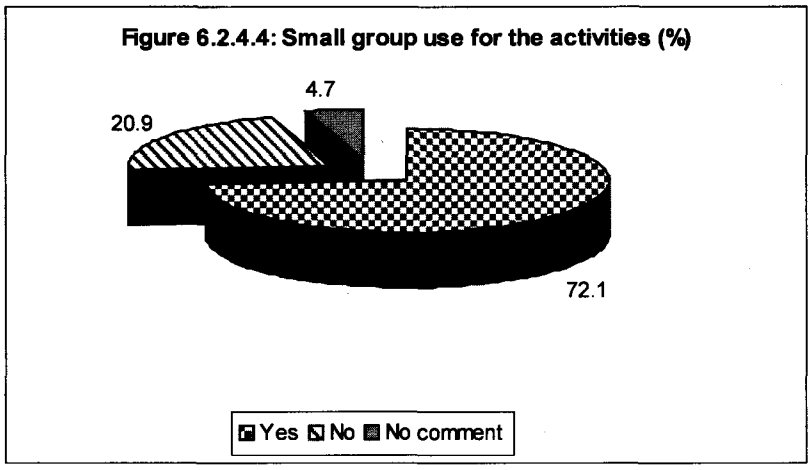


Figure 6.2.4.3: Frequency of trainers' reading to the students

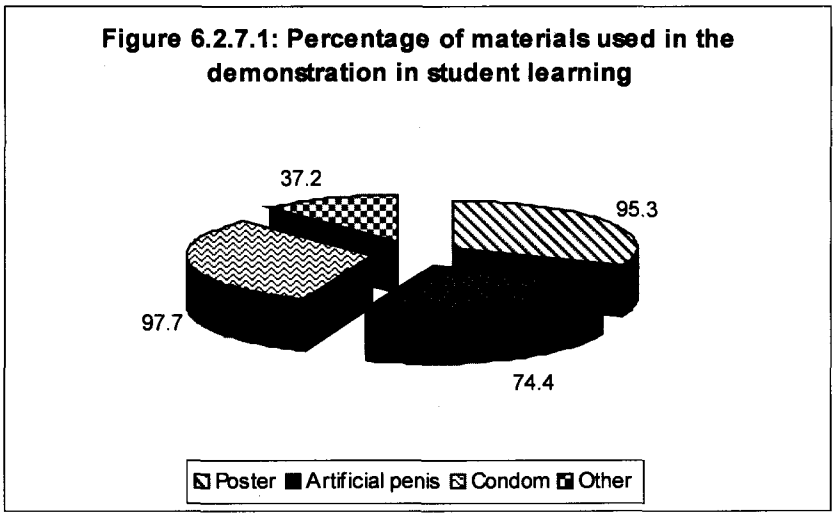




2.5. Sensitive Issues: shyness was the most evident for both teachers and students, especially amongst females, in applying role-plays to the activities. In addition, sex education or sexual issues are not familiar to unmarried people in Cambodia, especially in public places or in the family. However, the teachers' guide helped them in teaching the programme and coping with the sensitive issues (93%).

2.6. As a result of the programme, approximately 69% of trainers and teachers admitted that this programme had affected them in terms of personal changes at least in the protection of themselves against HIV/AIDS risks and in helping them to understand and accept people living with HIV/AIDS as ordinary fellow human beings and by providing support for and showing respect to them.

2.7. Regarding teaching methods, teachers indicated the frequency and types of teaching aids used in the classrooms as follows: posters (95.3%), artificial penis (74.4%), condom (97.7%) and other materials likes bananas and bottles (37.2%). When asked whether people living with HIV/AIDS were invited to school, about 87% of trainers disclosed that this activity was not organised because some did not know who the people living with HIV/AIDS were, some could not manage to bring their young students to visit the hospital and some had no ideas nor used their initiative (2.3%).

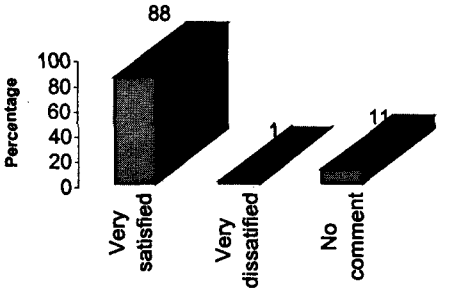


3. PARENTS' ATTITUDES

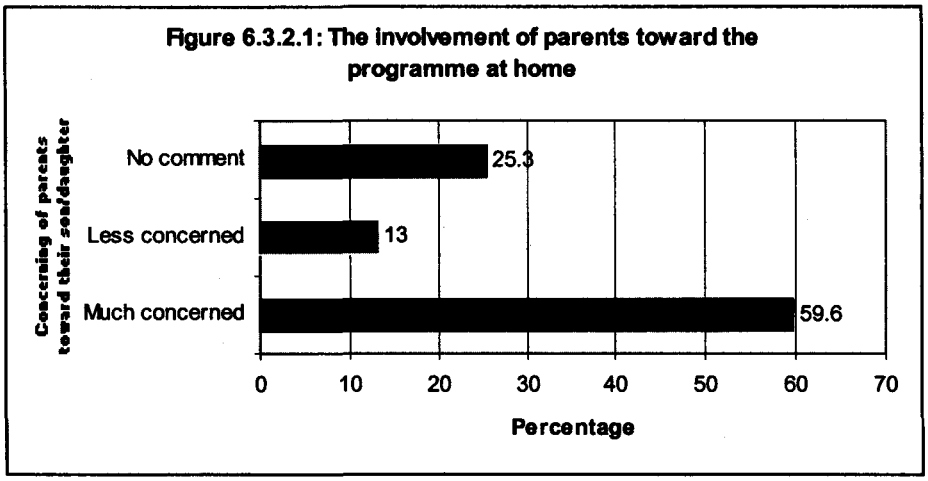
There were 99 parents who participated in the evaluation of the programme. Most parents had their sons or daughters attending grade 9. Some of them were illiterate and earned their living by rice farming and played very little of a role in school operations, let alone the teaching and its contents. Of those present at the interview, half of them were women and they thanked the MoEYS for initiating the subject of HIV/AIDS/STDs prevention education in secondary schools. They all said that they have never been invited to any meeting in schools about raising the HIV/AIDS risks to their young boys or girls. They were usually only invited when the school administrators need funds for school construction.

3.1. About 88% of parents felt that this programme was very good, positive and satisfactory for many reasons and they did hope that their young sons or daughters could acquire more knowledge on HIV/AIDS/STDs and would know how to protect themselves well against the HIV/AIDS pandemic. Only one parent (1%) expressed dissatisfaction towards the programme in schools for the reason that their children were still too young to be educated about sex. However, they all recognised that the introduction of HIV/AIDS prevention education in schools could inform and educate their children about health by avoiding the risks from HIV/AIDS and delaying sex during school age. When speaking about the learning materials, half of them had seen the textbook on HIV/AIDS/STDs Prevention Education published and distributed by MoEYS. About 70% of them had never attended any meeting about the programme, but this was not their fault because they had never been invited by the school board.

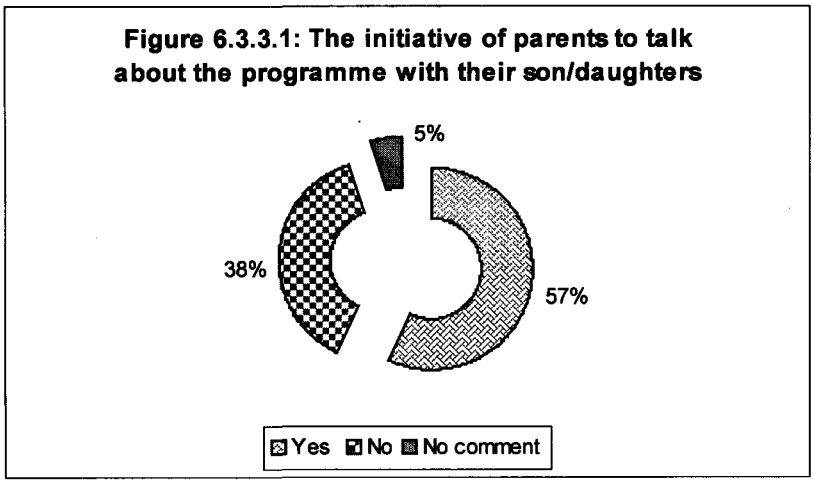
Figure 6.3.1.1: Feelings of parents toward the programme



3.2. For this programme, they thought that they could only make their children aware of HIV/AIDS so that it could benefit their children in the future (59.6%); some parents showed little concern or interest in the programme (13%) or they had no comments (25.3%). 63.6% of parents said that their children had informed them about this programme at home. And about 56.6% of them had the initiative to talk about the programme with their children occasionally at home.



3.3. Before the implementation of this programme in schools, approximately half of them had never discussed sexuality with their children and another 50.5% of them had discussed HIV/AIDS with their young children. They said "it was not difficult to exchange ideas with their sons/daughters (47.5%) because their children are young but mature enough to reflect and acquire some knowledge on HIV/AIDS/STDs and sex from the programme in schools". About 32.5% of the parents recognised that it was difficult because of their incapability in describing HIV/AIDS and some were simply too busy surviving by working. On the question of the sources from which their children learn about sexuality, they thought that 39.4% came from the public places, 29.3% from school, 6.1% at home and 24.2% had no comments. Finally, about 72% of them thought that the programme had affected their children in many positive ways, it had at least created some fear about HIV/AIDS in their minds, given them skills on how to use condoms properly and helped them to understand the need for delaying sex.



3.4. On personal issues, half of them confirmed that they had learned many things from the programme, especially basic knowledge, HIV/AIDS prevention and care and support for people living with HIV/AIDS. They indicated that they had

acquired knowledge on HIV/AIDS from several sources: from the mass media (33.3%), from their sons/daughters (6.1%), from workshops (1%) and from other NGOs (12.1%). When asked about the methods to prevent a HIV/AIDS epidemic, 80.8% always use a condom, 68.7% believed in and practiced monogamy, 34.3% believed in keeping their health strong and 22.2% had regular blood testing. Despite having this knowledge, they still possessed negative attitudes about people living with HIV/AIDS because 15.2% of them do not use things belonging to people living with HIV/AIDS and 15.2% said that it was normal for people to stay away from people living with HIV/AIDS.

Figure 6.3.4.1: Sources of information on HIV/AIDS/STDs acquired by the parents

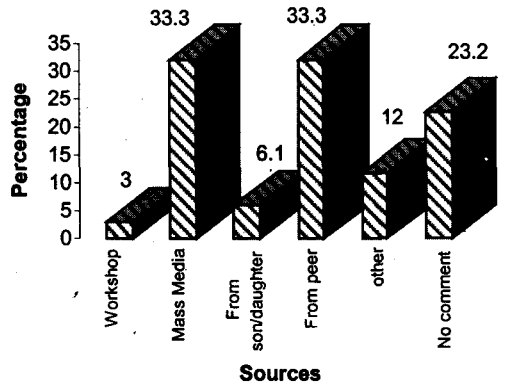
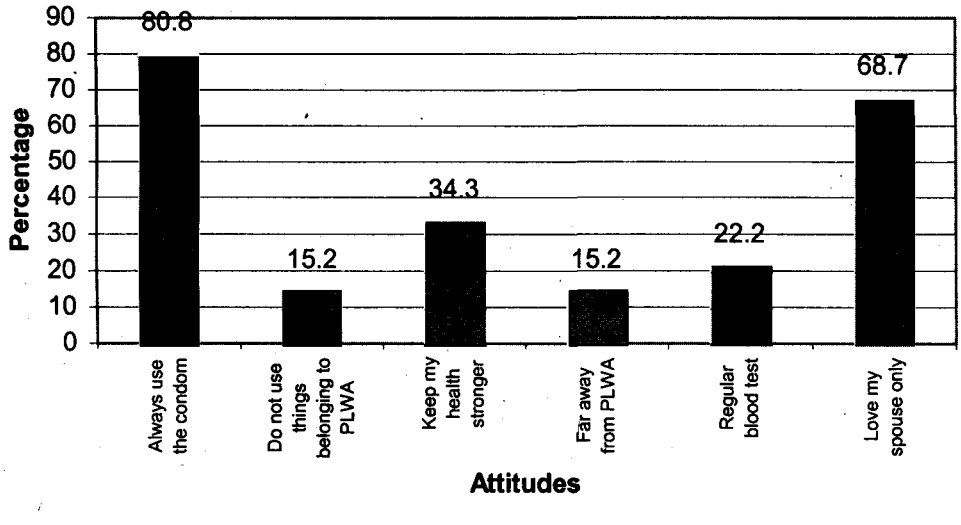


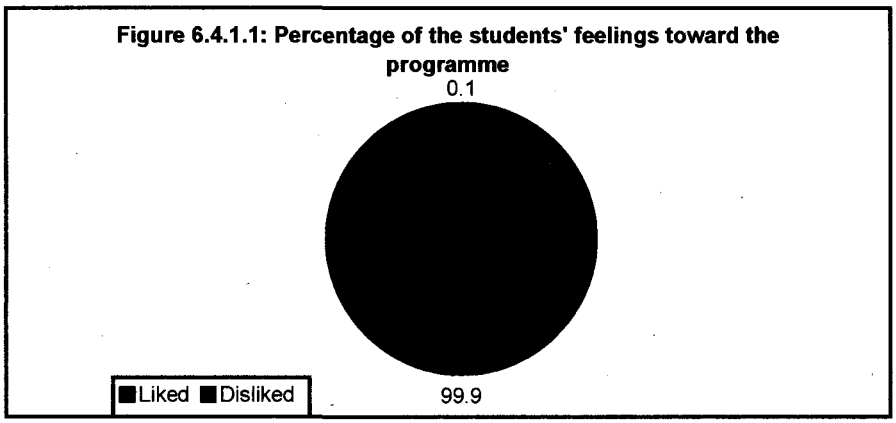
Figure 6.3.4.2: Parents' attitudes to prevent HIV/AIDS



4. STUDENTS' ATTITUDES

In the evaluation process, grade 9 students and grades 10, 11, and 12 students were invited to provide their ideas and views on the programme's effects. The former students totalled 914, including 378 female and the latter was a total of 413 students, including 169 female students. These students were from 13 to 20 years old.

4.1. Among the students who participated in the interview, grade 9 and the upper grade students said that they liked the programme (99.9% and 99.3% respectively). Their main reason was that the programme was useful for their future and could help prevent them from HIV/AIDS risks by providing useful knowledge and skills. Only 0.1% of grade 9 students stated that the learning of sexuality in school was not good and could lead to young people engaging in early sexual activity.

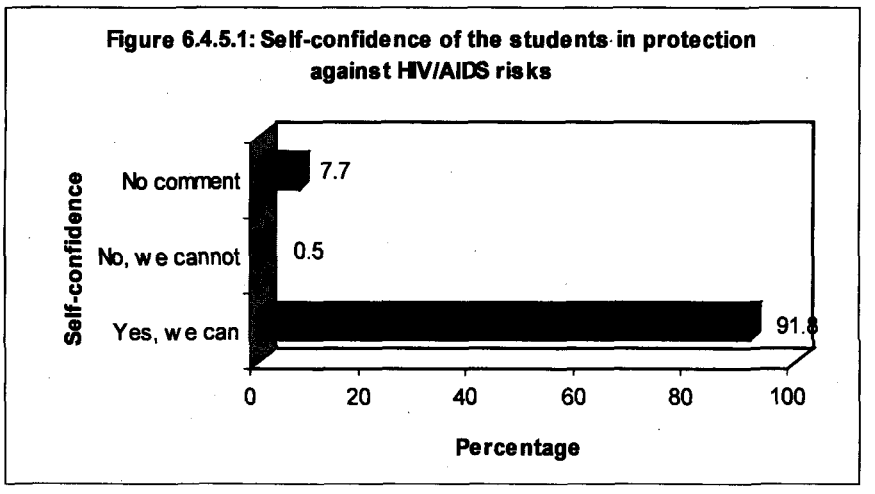


4.2. It was noted that grade 9 students were able to respond better than the upper grade students when they were asked to answer some of contents learned about HIV/AIDS/STDs. The grade 9 students could describe well the four steps to an assertive message (95%), and how to deliver an assertive message (about 94%) and 78.7% of them had learned clearly about non-discrimination and compassion at the end of the programme.

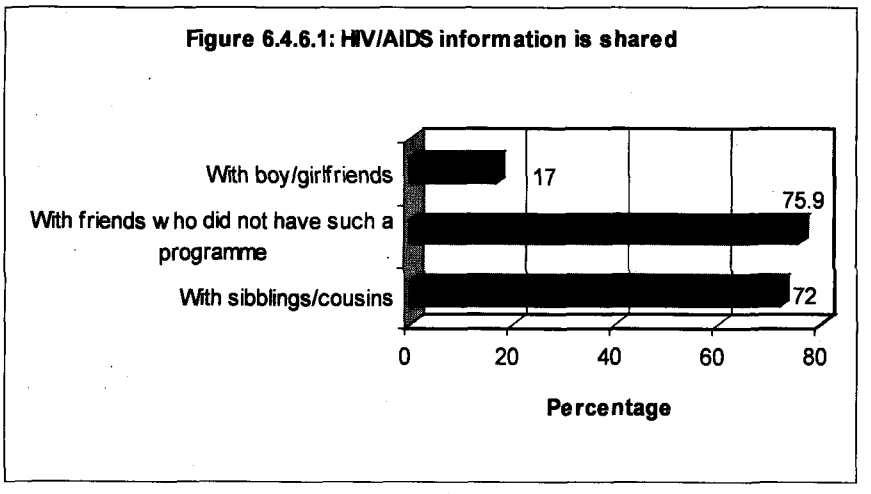
4.3. Regarding the activity lesson learning about condom use, 92.1% felt that it was a good idea and a lot of humour was observed in practising the activity. They now believe that condom use is the best and safest way to prevent HIV/AIDS "no condom, no sex!" About 91% said that they really liked all of the activities in learning the 4 units on HIV/AIDS prevention, though with varying weight. However, it could be observed that most male students put more stress on condom use than the female students who placed more stress on non-discrimination, compassion and support and care units.

4.4. Relating to the textbook design, especially the activities of the 4 units, 89.2% of them agreed that the scenarios or the situations used within each activity were useful and realistic to them and their peers and it was easy to understand the language used in the dialogues for each activity (73.6%).

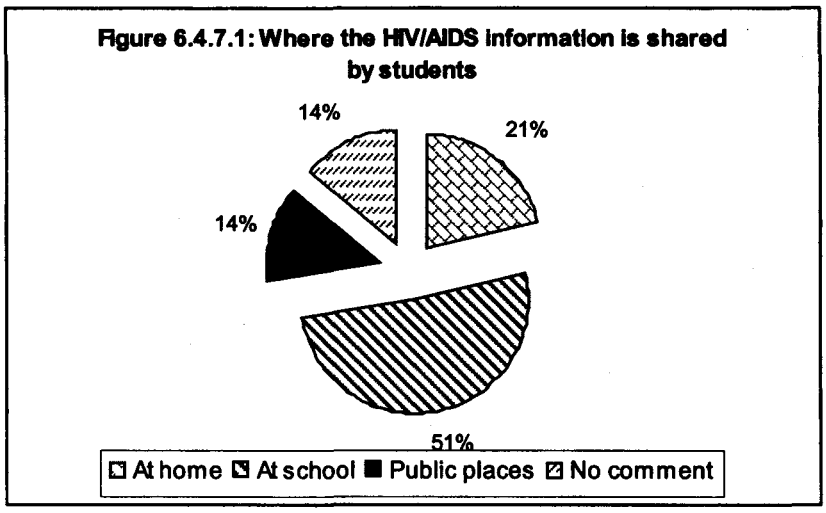
4.5. Most of the grade 9 students (91.8%) believed that they can now protect themselves from HIV/AIDS and also in the future, by following up all the lessons or principles learned from the programme, at least in terms of condom use and delaying sex.



4.6. Sharing knowledge and concerns about HIV/AIDS is one of many topics, which are frequently raised for discussion by students at homes, in schools and in public places. Students said that they shared such knowledge and concerns with their friends (93.9%), including with a boy/girlfriend (17%), with friends who did not have such a programme (75.9%) and with siblings or cousins (72%). They usually talked at home (21.2%), at school (51.1%) and in public places (13.7%).



4.7. Almost all of the grade 9 students (92.6%) received a copy of the students' book on HIV/AIDS/STDs Prevention Education and they have shared it with their friends or relatives (86%).



5. ABOUT STUDENT BOOKS & TEACHERS' GUIDE

5.1. Activities:

5.1.1. 86% of trainers agreed that the activities were clearly described and easy to understand in spite of the lack of real images or photographs of people living with HIV/AIDS. Almost all of the teachers (95.3%) confirmed that these activities were relevant to students because they were involved with youth issues and students could imitate them in role-plays with ease (67.4%). The students were highly satisfied with their participation in the programme (93%) and indicated they had experienced good learning (95.3%).

5.2. Student Books:

5.2.1. Just 93% of trainers agreed that the pictures and graphics were appropriate and the same percentage said that the language used was appropriate for the students too (93%).

5.3. Teachers' Guide:

5.3.1. The Teachers Guide is the only tool for teacher/trainers and there is only one manual for HIV/AIDS/STDs Prevention Education published by MoEYS. This manual is very useful regarding activities (95.3%) and it included everything that was most needed to carry out a specific activity (86%). In addition, this manual was easy for trainers to deal with the topics included in the activities (62.8%).

Chapter Seven

CONCLUSIONS & RECOMMENDATIONS

The programme entitled "Strengthening HIV/AIDS/STDs Prevention Education for Secondary Schools in Cambodia" was successfully implemented during 1999-2001 and has achieved the following major results:

1. Main Results of the Programme Implementation:

(1) New curriculum, student books and teachers' guides on HIV/AIDS/STDs prevention education developed and utilised nation-wide for all grade 9 and grade 12 students.
(2) A total of 60 teacher trainers from six regions and 1,300 teachers from secondary schools received training on the pedagogy of HIV/AIDS/STDs prevention education.
(3) A total number of 55,695 grade 9 students and 22,000 grade 12 students received HIV/AIDS/STDs instruction during the project period.
(4) Capacity in evaluation has been built for all staff members of the School Health Department.
(5) Experience from this pilot project has been documented and will be shared with stakeholders, especially secondary school administrators and teachers in Cambodia.

2. Learning Achievements & Impact:

(6) The mean score of grade 9 students increased from 72 in the pre-test to 84 in the post-test, indicating that students possessed some good knowledge on HIV/AIDS prior to the introduction of the programme. Through the three-day learning activities, their learning achievements were significantly increased.
(7) The number of students who scored at High Level (72-100 points) also increased as a result of the programme. Nation-wide, the percentage of this group increased from 52% to 82.7%. Students from "Other Cities" showed the largest increase from 16.7 % to 81.2 %.
(8) Female students scored higher than their male counterparts.
(9) When comparing types of achievements (Knowledge, Attitude and Life Skills), the largest improvement was in life skills, which increased from 54.8% in the pre-test to 74.5% in the post-test.

3. Factors Affecting the Programme's Effectiveness:

(10) Training of teachers, especially on the use of group activities, demonstrations and audio-visual aids, generated active participation and learning by most of the students.
(11) Class size: Most urban schools in Cambodia are suffering from over-crowded classes due to the shortage of space and high population growth. Ventilation is also poor in many classes.
(12) Previous knowledge on the subject matter, especially from peer groups, mass media and parents, had a strong influence on students' achievements. Due to this factor, students in the capital city of Phnom Penh showed a higher pre-test score than their counterparts in rural areas.

4. Lessons Learnt from the Project

4.1. Strengths

(1) Both teachers and students demonstrated a high enthusiasm and an active participation in the project, as shown by test scores and the opinion survey.
(2) A team of core trainers, evaluators and teachers received training in student-centered approaches.
(3) A set of learning materials and teachers' guide were developed and are expected to be reprinted for a large-scale utilisation by the government.

4.2. Weaknesses

(1) The time allocated for the teaching and learning activities was too short to ensure an optimal learning achievement.
(2) Only a small number of secondary school teachers received training in concept and methodology due to the shortage of funds.
(3) Most of the teachers were not familiar with the evaluation approach using pre- and post-tests.
(4) A shortage of trained personnel in educational measurement impeded the speed and quality of the evaluation.

5. Recommendations:

- The contents for student books should be shorter and some photographs showing people living with HIV/AIDS should be used in the book.
- This programme should be put in the national curriculum each year.
- MoEYS should introduce questions in the national examinations for lower and upper secondary graduations, especially in the subjects of Philosophy and Morals and Civics.
- The MoEYS leaders should keep the programme as a high priority and they should monitor its implementation regularly.
- This programme should be extended into remote schools.
- All trainers and teachers in secondary schools should be trained in order to ensure a better understanding of the issues and to enhance their skills for effective teaching.

- The programme should focus on non-discrimination topics in order to create a good attitude towards people living with HIV/AIDS. Other topics such as Protected Sex and Delaying Sex should also be top priorities.
- The length of teacher training session on HIV/AIDS should be extended longer than for the previous training.
- Peer education on HIV/AIDS should be developed and conducted at secondary schools.
- All the training both for teachers and students should be conducted during the school vacation.

6. Suggestions from Participants & Stakeholder:

6.1. School Administrators, Teachers & Trainers

- Most teachers and trainers were satisfied with the task of teaching HIV/AIDS/STDs prevention and they expressed willingness to teach this programme again.
- The class size should be reduced to 20 students per teacher in order to ensure a manageable environment and participatory approach.
- The number of trained teachers should be increased according to the number of students.
- The student learning sessions should be longer in order to allow group work and discussion, visits to see PLWA and other activities.
- Teaching and learning aids should be provided (such as video spots, bulletins, comics booklets and posters) to all schools.
- The programme implementers should conduct regular monitoring at the school level.
- Male and female classes should be separately organised when students are taught on sensitive issues or topics.
- The subject should be included in the national general education examination to ensure a stronger student and school commitment.
- Students of grades 10 and 11 should also be taught this programme under the pilot project.
- The objectives listed in the teachers' guide should be clearly stated and linked to the methods and contents.

6.2. Parents

Most of the parents who participated in the interview process felt that the introduction of HIV/AIDS/STDs Prevention Education in secondary schools was a very good initiative and a timely response to the HIV/AIDS pandemic. They all hope that their children would acquire knowledge of HIV/AIDS and could protect themselves through this programme. They admitted that they rarely educate or discuss the HIV/AIDS issues with their sons or daughters due to being too busy at work, poverty and lack of knowledge and awareness. Below are suggestions and comments from the parents:

- Besides school students, the programme on HIV/AIDS should be disseminated to all groups, especially women, as a form of continuing education through the mass media.

- Other printed materials on HIV/AIDS issues should be published and distributed to all students and to the public.
- This programme should be integrated into the formal secondary school curriculum.
- This programme should be introduced in Buddhist temples (wats), mosques and community centres.
- The student training should be conducted at least twice a year.

6.3. Students of Grade 9

. About the Learning

- More training on HIV/AIDS/STDs is needed because this 3-day learning period was too short to deeply grasp the knowledge and skills in preventing HIV/AIDS risks. The duration should be extended to 7 days.
- The programme should be taught to the lower grades in the formal general education curriculum for building awareness and strengthening and improving the knowledge and skills for HIV/AIDS prevention.
- This programme should be conducted continuously every year for all generations in order to avoid the loss of human resources.
- Smaller groups of students should be formed in the learning process in order to generate ideas, experiences and group discussions.
- Teachers should allow more time to conduct activities in each unit or lesson as much as possible, because the activities in the student-book are relevant to the real situation of the youth.
- Amongst the 11 lessons, the time allocated by teachers differed from one teacher to another. This issue should be resolved.
- The class should be conducted during the school vacation in order to avoid conflict of time with other subjects.
- Questions for group discussion should be raised as much as possible with the guidance of trainers. The reading by teachers or the teacher-centred method was a boring one and therefore should be avoided.

. About the Teaching

- The programme should be clearly presented and explained.
- Teachers or trainers should be bold enough when teaching sex education, because in some cases the teachers were shyer than the students, especially the female teachers.
- Teaching speed should be slow for students to better grasp the knowledge and skills. Some teachers explained the lessons too quickly in order to simply meet the tight class schedule.
- Teachers of HIV/AIDS/STDs prevention should have adequate capacity in teaching.
- Teachers should utilise many activities (use of posters and other training materials for demonstration).
- Real case studies in society should be presented and discussed in the training for the reason that the young want to know and relate to real situations in society.
- The number of trained teachers should be raised proportionately to the number of students. Untrained teachers should not be asked to teach this subject.
- Group discussions should be conducted for all lessons and units.

- If possible, a study tour to see the people living with HIV/AIDS in nearby hospitals or communities should be included in the programme.
- The length of the learning session should be long enough for students so that they can raise questions or issues related to HIV/AIDS/STDs.
- The training of HIV/AIDS/STDs should be conducted every Sunday, when students are free from other subjects and the scores should be included in their general education.

*. About the Teaching/Learning Materials

- The teaching and learning materials should provide enough time for demonstration.
- The videotapes on HIV/AIDS issues should be shown in every school.

*. About the Classroom Management

- The classrooms should be larger with better ventilation.
- Classes for male and female students should be arranged separately to avoid shyness when they raise sensitive issues with teachers.
- Small working groups should be formed with the introduction of many role-plays.
- Strict discipline or regulations for teaching/learning should be developed and respected by all.

6.4. Students of Upper Grades

- They asked for games related to HIV/AIDS/STDs performed by students and broadcast through the mass media, especially radio and TV.
- A programme called "*Personal Knowledge*" on HIV/AIDS/STDs issues should be developed for upgrading their knowledge and issues relating to sex education.
- The programme should encourage students to express as much as possible more opinions and ideas on the issues of HIV/AIDS/STDs.
- The programme of HIV/AIDS prevention education should be conducted at least 2 hours per week, throughout the academic year, if possible.
- Lessons or topics to be taught should link directly in a youth context with more questions and response sessions, because some teachers merely followed what was presented in the teachers' guide and student books.
- The session of training should be long enough to allow for greater comprehension.
- Slogans, key messages, banners and posters about HIV/AIDS issues should be developed by students and displayed in the classroom and the community.
- Students wanted to meet people living with HIV/AIDS in order to compare them with healthy people.

Glossary

AIDS (acquired immunodeficiency syndrome) — The last and most severe stage of the clinical spectrum of HIV-related disease.

Antibodies — Immunoglobulin molecules in the blood produced by the body's immune system and directed against specific agents, such as "alien" viruses or bacteria. In HIV infection, the antibodies produced against the virus for some reason fail to protect against it.

Asymptomatic — Without symptoms.

Autologous transfusion — Transfusion of a person's own blood that has been donated and stored prior to need, or salvaged during or after an operation and reused.

Bacteria — Microbes composed of single cells that reproduce by division. Bacteria are responsible for a large number of diseases. Bacteria can live independently, in contrast with viruses, which can only survive within the living cells that they infect.

Bisexual — A person who is sexually attracted to both males and females.

Condom — One type of prophylactic that can prevent sexually transmitted diseases and AIDS.

DNA (deoxyribonucleic acid) — A nucleic acid that carries genetic information in all organisms except certain viruses, the RNA viruses, which include HIV.

ELISA — Enzyme-linked immunosorbent assay. A laboratory test to determine the presence of antibodies to HIV in the blood. A positive ELISA result generally is confirmed by the Western blot test.

False-negative HIV antibody test — A negative test result that suggests a person is not HIV-infected when, in fact, he or she is infected.

False-positive HIV antibody test — A positive test result that suggests a person is HIV-infected when, in fact, he or she is not infected.

Heterosexual — A person sexually attracted to persons of the opposite sex. The word "straight" has become synonymous with heterosexual.

High-risk behaviour — Activities that put an individual at greater risk of developing a particular disease. High-risk activities associated with AIDS include unprotected sexual intercourse and sharing of needles and syringes.

HIV (human immunodeficiencyvirus)—The retrovirus that causesAIDS in humans.

HIV-1 — The retrovirus that is the principal worldwide cause of AIDS.

HIV-2 — A retrovirus closely related to HIV-1 that also causes AIDS in humans, found principally in West Africa.

HIV-antibody-negative — Containing no antibodies to HIV.

HIV-antibody-positive — Containing antibodies to HIV.

Homosexual — A person sexually attracted to persons of the sane sex. Homosexuals include males (gays) and females (lesbians).

IDU — Injecting drug user

Immune system — All of the mechanisms that act to defend the body against external agents, particularly microbes (viruses, bacteria, fungi and parasites).

Incubation period — The period of time between entry of the infecting pathogen into the body and the first symptoms of the disease.

Kaposi's sarcoma — A cancer or tumour of the walls of the blood vessels or the lymphatic vessels.

Lymphadenopathy — Swelling of the lymph nodes. Persistent and generalized yin-phadenopathy is one of the early clinical signs of HIV infection.

Maternal antibodies — In an infant, these are antibodies that have been passively acquired from the mother *in utero*. Because maternal antibodies to HIV continue to circulate in the infant's blood up to the age of 15-18 months, it is difficult to determine whether the infant is infected.

MSM —Men who have sex with men.

Opportunistic infection — An infection with a micro-organism that does not ordinarily cause disease, but that becomes pathogenic in a person whose immune system is impaired, as by HIV infection.

Pathogen — An agent such as a virus or bacteria that causes disease.

Plasma — The fluid portion of the blood.

Retrovirus — An RNA-containing virus that can transcribe its genetic material into the DNA of its host's cells by the action of an enzyme called reverse transcriptase. This is the reverse of the usual, or DNA-to-RNA, transcription.

RNA (ribonucleic acid) — A nucleic acid associated with the control of chemical activities inside a cell. Some viruses, including HIV, carry RNA instead of the more usual DNA.

Semen — Fluid produced by the seminal vesicles and the prostate that contains the spermatozoa. Semen can contain cells infected with the AIDS virus and is consequently able to transmit the infection to sexual partners.

Seroconversion — The development of antibodies in response to an antigen. With HIV, seroconversion usually occurs 4-12 weeks after infection is acquired, but in a very few cases, it has been delayed for six months or more.

Serological testing — Testing of a sample of blood serum.

Seronegative — Showing negative results in a serological test.

Seropositive — Showing positive results in a serological test. A person who is seropositive for HIV antibody is considered HIV-infected.

Seroprevalence — The proportion of a given population with a particular marker in the blood, such as antibody to HIV, at a specific time.

Serosurvey — Systematic testing of sera from a group of persons to determine the frequency of a particular marker, such as antibody to HIV, in that population.

STD — Sexually transmitted disease(s). These are diseases that can be transmitted by means of sexual relations. AIDS is essentially a sexually transmitted disease. STDs are increasingly being referred to as sexually transmitted infections.

Symptomatic — With symptoms.

Viraemia — The presence of virus in the blood, which implies active viral replication.

Virus — Infectious agent (microbe) responsible for numerous diseases in all living beings. They are extremely small particles, and in contrast with bacteria, can only survive and multiply within a living cell at the expense of that cell.

White blood cells — Blood cells responsible for the defence of the body against foreign disease agents and microbes. HIV targets two groups of white blood cells called CD4+ lymphocytes and monocytes/macrophages.

Appendices

Pre-test & Post-test Sheet.

Name.....Age.....Sex.....Province/Municipality.....
District ..... School .....
Student Name.....Classroom.....

❖ ***Remark: Each item gets a score of 5 and the 20 items equal to a score of 100.***

Knowledge

1. Complete the full meaning of:
   HIV:.....
   .....

   AIDS:.....
   .....

   .....
   .....
   .....
   .....

2. If the result of blood testing is positive (+) does it mean that:

   HIV-infected ☐ No HIV ☐ | HIV-infected ☐ No HIV ☐

3. Anyone who is in good health might be negative of HIV/AIDS.

   True ☐ False ☐ | True ☐ False ☐

4. How is HIV/AIDS transmited to another ?
   1.....
   2.....
   3.....

   1.....
   2.....
   3.....

5. How many ways to prevent HIV/AIDS ?
   1.....
   2.....
   3.....
   4.....

   1.....
   2.....
   3.....
   4.....

6. How many people infected with HIV/AIDS in Cambodia in 1999 ?
   .....

   .....

7. HIV/AIDS transmits to another by mosquito bites:

   True ☐ False ☐ | True ☐ False ☐

8. I will tell my partner if I were infected with HIV/AIDS:

   Agree ☐ Disagree ☐ | Agree ☐ Disagree ☐

9. I have to keep my health better and better:

   Agree ☐ Disagree ☐ | Agree ☐ Disagree ☐

10. We could be infected with HIV/AIDS through food: ☐ True ☐ False | ☐ True ☐ False

Attitude

1. People with HIV/AIDS should be kept far away from others: ☐ True ☐ False | ☐ True ☐ False
2. It is safe to have sex just once without a condom: ☐ True ☐ False | ☐ True ☐ False
3. There are many reasons to reject intercourse:
   1.....
   2.....
   3.....
   1.....
   2.....
   3.....
4. No compassion or tolerance towards people with HIV/AIDS. ☐ True ☐ False | ☐ True ☐ False
5. I prefer injections to swallowing drugs. ☐ Right ☐ Wrong | ☐ Right ☐ Wrong

Life Skills

1. There are many ways to delay sex. ☐ True ☐ False | ☐ True ☐ False
2. Name the benefits of condom use:
   .....
   .....
   .....
   .....
   .....
   .....
3. What are the ways to care for people living with HIV/AIDS ?
   .....
   .....
   .....
   .....
4. I am not a care- taker for people with HIV/AIDS. ☐ True ☐ False | ☐ True ☐ False
5. No condom, no sex. ☐ True ☐ False | ☐ True ☐ False

Key Score Schemes
for 20-Item Standardised Pre- and Post-Test
The STD/HIV/AIDS Prevention Education Programme

Knowledge

❶ ***Complete the full meaning of:*** ***(5 scores)***

HIV = *Human (0.75 score) Immunodeficiency (0.75 score) Virus (0.75 score)* **(sub-total scores: 2.25)**

AIDS = *Acquired (0.75 score) Immune/Immuno (0.50 score)Deficiency (0.75 score) Syndrome (0.75 score)*
(sub-total scores: 2.75)

❷ ***If the result of blood testing is positive (+) it means that:*** ***(5 scores)***

HIV-Infected ☑ *(5 scores)*
No HIV ☐ *(0 score)*

❸ ***Anyone who is in good health might be negative of HIV/AIDS.*** ***(5 scores)***

False ☑ *(5 scores)*
True ☐ *(0 score)*

❹ ***How is HIV/AIDS transmitted to another?*** ***(5 scores)***

1. *Sexual intercourse (1.5 scores)*
2. *Sharing unsterilised needles or other sharp instruments (1.75 scores)*
3. *From an HIV-infected mother to her unborn child (1.75 scores)*

❺ ***How many ways to prevent HIV/AIDS?*** ***(5 scores)***

1. *Delaying sex (1.25 scores)*
2. *Be in love with one partner only (1.25 score)*
3. *Always use a condom and correctly (1.25 score)*
4. *Avoiding sharing the unsterilised needles, syringes or piercing instruments (1.25 scores)*

❻ ***How many people infected with HIV/AIDS in Cambodia in 1999?*** ***(5 scores)***

Varies from 170,000 to 200,000 people (5 scores)

❼ ***HIV/AIDS transmits to another by the mosquito bites:*** ***(5 scores)***

False ☑ *(5 scores)*
True ☐ *(0 score)*

❽ ***I will tell to my partner if I were infected with HIV/AIDS:*** ***(5 scores)***

Agree ☑ *(5 scores)*
Disagree ☐ *(0 score)*

❾ ***I have to keep my health better and better:*** ***(5 scores)***

Agree ☑ *(5 scores)*
Disagree ☐ *(0 score)*

❿ ***We could be infected with HIV/AIDS through food:*** ***(5 scores)***

True ☐ *(0 score)*
False ☑ *(5 scores)*

Attitude

❶ ***People living with HIV/AIDS should be kept far away from others:*** ***(5 scores)***

True ☐ *(0 score)*
False ☑ *(5 scores)*

❷ ***It is safe to have sex just once without a condom:*** ***(5 scores)***

True ☐ *(0 score)*
False ☑ *(5 scores)*

❸ ***There are many reasons to reject intercourse:*** ***(5 scores)***

1. *Fear of being pregnant.*
2. *Fear of HIV infection.*
3. *Fear of being affected and family reputation.*
4. *Wait till the wedding day.*
5. *Keep our friendship better and better.*
6. *Having sex with variety of methods.*
7. *Keep the good tradition and culture.*
8. *Bad health (menstruation).*

❹ ***No compassion or tolerance towards people living with HIV/AIDS.*** ***(5 scores)***

True ☐ *(0 score)*
False ☑ *(5 scores)*

❺ ***I prefer injections to swallowing drugs.*** ***(5 scores)***

True ☐ *(0 score)*
False ☑ *(5 scores)*

Life Skills

❶ ***There are many ways to delay sex.*** ***(5 scores)***

True ☑ *(5 scores)*
False ☐ *(0 score)*

❷ ***Name the benefits of condom use:*** ***(5 scores)***

1. *To prevent STDs/HIV/AIDS. (2.5 scores)*
2. *To prevent pregnancy. (2.5 scores)*

❸ ***What are the ways to care for people living with HIV/AIDS ?*** ***(5 scores)***

1. *Physical support. (2.5 scores)*
2. *Spiritual support. (2.5 scores)*

❹ ***I am not a care-taker for people living with HIV/AIDS.*** ***(5 scores)***

True ☐ *(0 score)*
False ☑ *(5 scores)*

❺ ***No condom, no sex.*** ***(5 scores)***

True ☑ *(5 scores)*
False ☐ *(0 score)*

STUDENT INTERVIEW SHEET

A. Background.

1. Date of interview:_____
2. School /District:_____
3. Student Name:_____Sex _____
4. Number of students in the class: (number of male/female)_____

B. Activities

1. Speaking generally: What did you think of the HIV/AIDS/STDs Programme activities ? What did you like and/or dislike ? _____

2. Do you remember the four steps to an assertive message ? What are they ?

3. How did you find practicing how to deliver an assertive message ?

4. How did you feel about the condom activities ? What did you learn from doing them ? _____

5. What did you think about the discrimination and compassion activities towards the end of the programme ? What did you learn from them ?_____

6. How did you feel about the parent activities (if activities were done with parents)? Was it the first time you talked about those topics with your parents or other relatives ? _____

7. Do you think your parents learned anything about HIV/AIDS ?

8. Were there any activities you really liked ? If so, which ones and why ?

9. a) Were there any activities you really disliked ? Which ones and why ?

   b) If yes, how would you change the activity to make it better ?

10. What about the situations (scenarios) within the activities - were they useful ? Did you feel they were realistic/may happen to you or your friends ?

11. Were you able to read and understand the language ? Was it difficult ? Was it too easy ?

C. Overall Evaluation.

1. Do you think you can now protect yourself from HIV/AIDS/STD ? How ? What about in the future ?

2. Did you talk about HIV/AIDS/STDs with your friends ? With your boy/girlfriend ? With friends who did not have such a programme ? With siblings or cousins ? In your Buddhist Temple or Christian Church or Muslim Mosque ?

3. Do you have any other comments to add ? (e.g. were there any aspects which really bothered you about the programme that you haven't already mentioned ? Were there other aspects which you were pleased about ?)

4. Did you receive a copy of student-book ? *Yes* *No*

5. Did you share the student book with your friends or relatives ?

Yes *No*

Thank you for your interview !
See you again !

TEACHER INTERVIEW SHEET

Note to Interviewer

1. Each question in this interview should be asked so that the teacher has a chance to expand or explain their answer.

2. Wait for the teacher's responses without influencing the answer.

3. Enter the responses as you hear them (i.e. tick the appropriate response choice) and write down a few words that will help you elaborate or clarify an answer.

4. You will be asking these questions with reference to one class. If the teacher has taught the programme to more than one class, ask for reference to be made primarily to the latest class taught.

Personal Information

Name:_____

Age:_____Sex : M F

School : _____

District/Khan:_____Province_____

Number of Students_____

Teaching Methodology:

Discussion Lecture Demonstration

Other .....

Class Management:

Male only Female only Mixed

Level of Education:.....

Training in the Teacher Training Centre:

Yes No

A. Background Information.

1. Date of interview. Day Month Year

2. Sex (of students). Number of Male Number of Female

3. Number of hours in programme. hours
4. How many years have you been teaching ?

   a) in total.

   b) this grade level.

   c) area/subject:

5. a) Do you have any training in teaching sexuality, STDs or AIDS, other than the teacher workshop you attended ? Yes No

   b) If yes, specify what the training was ?_____

_____

_____

_____

_____

B, Teacher Attitudes about the Programme.

6. a) Would you want to teach this programme on HIV/AIDS/STDs again ?

   Yes No Only in part

   b) If not the whole programme, which parts would you want to teach ?
   (Tick one or more boxes, as appropriate)

   Unit 1: Basic Information on HIV/AIDS/STDs Unit 2: Delaying Sex

   Unit 3: Protected Sex Unit 4: Care and Support for PLWA

7. Rate the parts of the programme that you were most and least comfortable with

	Most	Least		Most	Least
The activity in unit 1			The peer leader help		
The activity in unit 2			Parent involvement		
The activity in unit 3			Assertiveness skills		
The activity in unit 4			Condom skills		

Other:_____

_____

_____

_____

_____

C. The Students.

8. What was the age range of students in your class ? to
9. Generally, how was the reading level of the activities for most of your students ?

   Too high Alright Too low

10. How would you describe the students' overall involvement (eg. demonstration, discussion, comment...) in the programme's activities ?

    High Moderate Too low

D. The Parents.

11. a)Did you receive any positive comments from the parents about the programme ?

    Yes No

    b) If yes, how many:_____

    c) If yes, give an example:_____

    _____

    _____

    _____

12. How did you involve parents ? *(tick one or more boxes, as appropriate)*

    Parent meeting Letter to parents

    Student activities at home Leaflet

    Parent/student interview Drama, exhibition

    Other .....

E. Teacher Training

13. a) How do you feel about the teacher training programme now that you have finished the programme ?

    Very satisfied Satisfied Dissatisfied Very dissatisfied

    b) If dissatisfied, why ? _____

    _____

    _____

    _____

    _____

14. Was the training long enough ? Too short Alright Too long

15. How well did the training prepare you for teaching the programme ?

    Very well Quite well

Not well enough Do not need the training

16. Do you have anything to add about the teacher training ?_____

_____

_____

_____

_____

F. Evaluation of Students.

17. a) Did you use the pre-post tests or other evaluation materials to evaluate students a grade or mark ? Yes No

b) If no, specify : _____

_____

_____

_____

18. a) Are there changes you would like to make to the evaluation questions ?

Yes No

b) If yes, what changes ? _____

_____

_____

_____

_____

G. Teaching Methods

19. Were you able to distribute the textbook for each student ? Yes No

20. Did you write the activities on the blackboard ?

All Most Some None

21. Did you read the activities to the students ?

All Most Some None

22. Did you use small group for the activities ? Yes No

23. a) Did you have trouble carrying out the activities ? Yes Some No

b) If yes, please tell us what the difficulties were:

_____

_____

_____

_____

24. Do you have any recommendations that would make it easier for you to use the activities ? _____

H. Sensitive Issues

25. a) Did sensitive issues come up while teaching the programme ? Yes No
b) If yes, what were they ? _____

c) Did the teacher's guide help you to deal with these issues ? Yes No

d)If no, what other help would you like to see in the guide about sensitive issues ?

I. Personal Changes/Issues

26. Did the programme affect you in any way ? Yes No Don't know
If yes, in what way ?

27.a)Will you change anything about the way you teach as results of the programme ?

Yes No Don't know

b) If yes, what will you change ? _____

TEACHER FEEDBACK FORM

Please fill in this form for Activities in the HIV/AIDS/STDs Manual

*Answer the following questions by ticking **Yes** or **No** and add comments:*

1 Was the activity clearly described ? Yes ❑ No ❑
Comments:_____

2 Was the activity relevant to students ? Yes ❑ No ❑
Comments:_____

3. Was the language appropriate ? Yes ❑ No ❑
Comments:_____

4. Were the pictures/graphic appropriate ? Yes ❑ No ❑
Comments:_____

5. Was students' participation satisfactory ? Yes ❑ No ❑
Comments:_____

6. Was students' learning satisfactory ? Yes ❑ No ❑
Comments:_____

7. Did students find the activity easy ? (indicate which parts were found difficult)

Yes ❑ No ❑

Comments:

8. Was class management easy for you ? Yes ❑ No ❑

Comments:

9. (if applicable) Were peer leaders helpful ? Yes ❑ No ❑

Comments:

10. Was the Teachers' Guide useful for this activity ? Yes ❑ No ❑

Comments:

11. Did the Teachers'Guide include all that was needed to carry out the activity ?

Yes ❑ No ❑

Comments:

12. Was it difficult for you to deal with the topics addressed in the activity ?

Yes ❑ No ❑

If so, which ones ?

Comments:

13. Your suggestions for improvement of the learning/teaching activity are :

14. Your suggestions for improvement of the Teachers' Guide on the learning/ teaching activity are:

15. How much classroom time was spent on the programme ? (in hours) ❑❑

Comments:

16. Was it sufficient or not sufficient ? Sufficient ❑ Not sufficient ❑

Why ?

17. What materials for demonstration in teaching ?

Poster ❑ Condom ❑ Artificial penis ❑ Other ❑

Comments:

18.Did you take students to see the PLWA or invite the PLWA to speak in the school ?

To see the PLWA ❑ To invite the PLWA ❑ No activity at all ❑

Why ?

Thank You ! See You Again !

SCHOOL DIRECTOR'S INTERVIEW

Note to Interviewer

Each question should be asked in an open-ended way. Wait for the responses and only use the probes or response choices if the director gives no response or the question is not understood.

Record responses as you hear them (i.e. - tick the appropriate response) and write down the main points of what was said when elaboration is needed. Note and expand the explanation for responses where given so that someone else can interpret them.

Background

1. Date of interview:.....
2. School/District.:.....
3. Province/Municipality:.....
4. School Director Name:.....

5. Sex. Male Female

A. ***General Views of the Programme.***

1. What are your overall impressions of the programme ?

Very Good Good Fair Poor Very Poor

2. How enthusiastic were you about having it taught in your school ?

High Moderate Low

3. a) How did the community, excluding students' parents, react to the implementation of the programme ?

Positively Negatively Don't know

b) Who reacted negatively ? How did you respond ? _____

_____

_____

_____

_____

_____

_____

c) Who reacted positively ? Why ? _____

4. What things helped the implementation of the programme ?

5. What things hindered the implementation of the programme ?

6. Do you think the programme was important for young people in your school ?

Yes No Part of it

7. Based on what you know about the programme, would you want to use this programme again next year ?

Yes, in its entirely Yes, in part No

8. Were there particular components of the programme that you liked or disliked ?

	Liked	*Neutral*	*Disliked*
Basic knowledge			
Unit on protected sex			
Unit on delaying sex			
Care and support unit			

	Liked	*Neutral*	*Disliked*
Parent involvement			
Skills as part of the programme			
Peer education			
Student activities			

B. Students'Responses.

9. a) Did you receive any comments from students about the programme ?

   Yes No

   b) If yes, were they mostly positive, neutral, or negative ?

   Positive Neutral Negative

C. Teachers' Training

10. *Did you find the teacher training programme useful ?*

    Very useful Useful Not useful

11. a) What was the general response of your teachers to the programme ?

    Most liked it Many were neutral Most disliked it

    b) Comments ? _____

    _____

    _____

    _____

    _____

12. a) Could the programme developers improve the programme to help you and your

    teachers with the implementation ? Yes No

    b) If yes, how ? _____

    _____

    _____

    _____

    _____

    _____

D. Parent/Gardian Involvement

13. a) Did you receive any positive comments from parents about the programme ?

    Yes No

    b) If yes, from how many parents ? _____

    c) What kinds of comments were made ? _____

14. a) Did you receive any negative comments from parents about the programme ?

Yes No

b) If yes, from how many parents ? _____

c) What were the comments ? _____

15. a) Was there additional help/information you would like to have had for the parents/guardians ? Yes No

b) If yes, what do you need ? _____

E. Issues

16. Did any of the teachers come to you with problems ? Yes No
17. If yes, what were the problems ? _____
18. How was the teachers' overall response ? _____

19. Who were the teachers most in favour of the programme ? (gender, age)

20. What kind of support did you get from the Ministry/Administration (Provincial or District Education Offices) other agencies/NGOs ?

21. Do you have any other comments to add ? (e.g. Were there any aspects which really bothered you about programme that you haven't already mentioned ? Are there aspects that you were pleased about ?) _____

Thank you for your interview ! See you again !

PARENT INTERVIEW SHEET

The parent interview format will depend on the type of activities planned for parent and family involvement. Choose from the questions below those you think are relevant and add others.

Background

1. Date of interview:_____
2. School :_____
3. Khan/District:_____
4. Province/Municipality:_____
5. Parent/Guardian Name:_____Sex_____Age___

A. Possible Questions

1. How do you feel about your son/daughter learning about sex and AIDS at school ?

_____
_____
_____
_____

2. Have you seen any of the materials used in the programme ? Which ones ?

_____
_____
_____
_____

3. Have you attended any parent meeting about the programme ?

_____
_____
_____
_____

4. The HIV/AIDS/STDs programme in the school focuses on learning information and skills to prevent HIV and STDs. Overall, what do you think of involving parents in such a programme ? _____

_____
_____
_____
_____

5. Has your son/daughter taken the initiative to talk to you about the HIV/AIDS/STDs programme that he/she is taking/has taken in the school ?

6. Have you taken the initiative to ask your son/daughter about the programme ?

7. Did you use some of the suggested questions in the student book ?

8. Did you do any of the Student/Parent activities with your son/daughter? Which ones ?

9. Who did the activities with your son/daughter ? (mother, family, both, other relative, specify)

10. Were any of the other children involved in doing the activities ?

11. About how much time was spent on the activities that you did with your son/ daughter ?

12. How did you find the activities (language, picture, too personal, too much information, unclear...) ?

13.Had you discussed sexuality with your children before the programme ?

14.Had you discussed AIDS/STDs with your children before the programme ? With other children in your family ?

15.Did you find it difficult ? Why ?

16 .Where do you think your children learn about sexuality outside the family and school ?

17. Would you recommend that other parents participate in the parent/ guardian activities with their son/daughter ?

18. Do you think the programme has affected your son/daughter in any way _ either in a positive or negative way ?

19. Do you feel you have learned something from this programme ? What ?

20. From where do you get information about HIV/AIDS/STDs ?

Workshop *Mass Media* *Your son/daughter* *Your peers* *Other*

21. What methods do you think will prevent HIV/AIDS epidemic ?

Always use a condom *Far away from PLWA*

Do not use things that belong to PLWA *Regular blood test*

Keep my health stronger *Love my couple only*

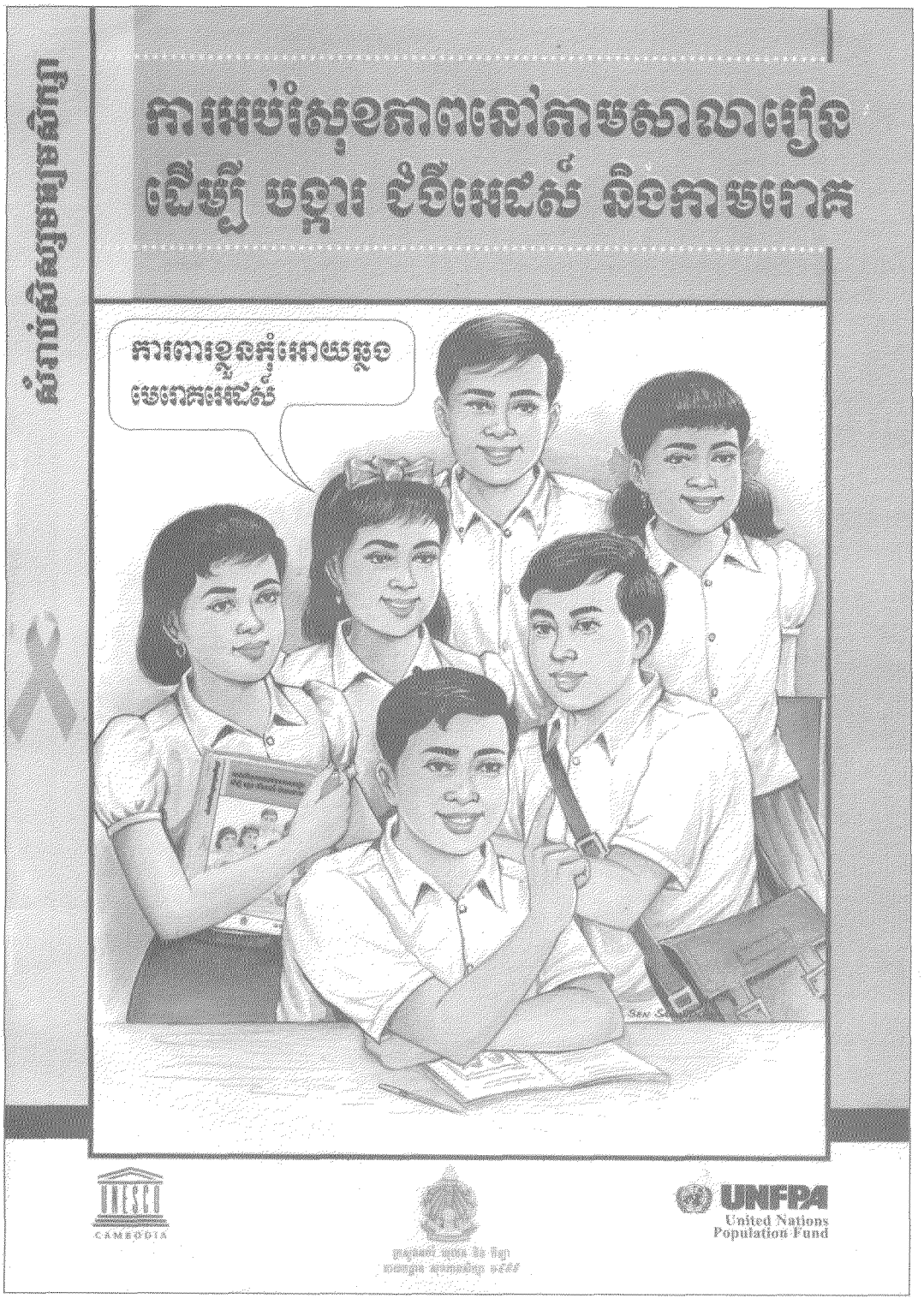
22. Do you have any comments or suggestions to prevent the epidemic of HIV/AIDS ?

_____
_____
_____
_____
_____
_____

23. Are there changes you think should be made in the programme or do you have any comments that you would like to make ? _____

_____
_____
_____
_____
_____
_____

This ends the interview.
Thank you for the time you have spent with me completing this interview and for all your comments and suggestions.
We hope that your son/daughter has benefited from the programme.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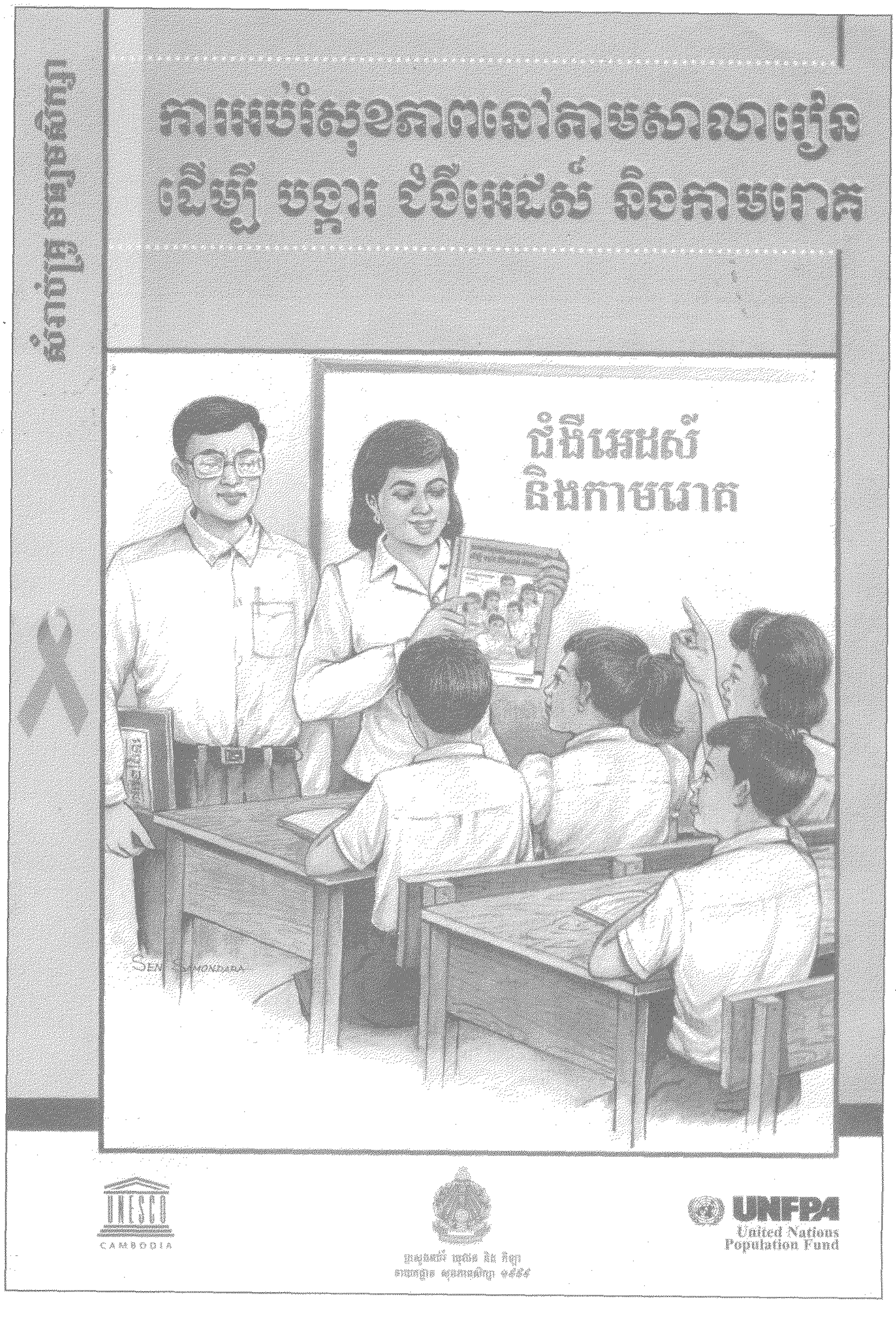
UNESCO
CAMBODIA
UNFPA
United Nations
Population Fund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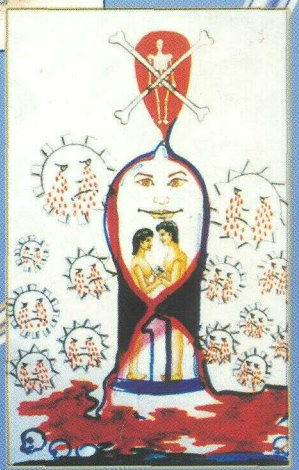

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