

នំលាក់នំលេខទោលម៉ោលធ្វើការ សិលល្អផលសៃការសិក្សារបស់ សិស្សលៅខណ្ឌលមួយកូលក្រុលក្តុំពេញ

The Relationship between
Hours Spent on Work and Academic Achievement:
A Case Study of Students at One High School in Phnom Penh

A Thesis In Partial Fulfillment of the Requirement for the Degree of Master of Education in Educational Administration and Leadership

Nhim Sokphyrom

April 2014

សាងលេខ្លាំ ខេត្តខ្លាំ ខ្លាំ ខេត្ត ROYAL UNIVERSITY OF PHNOM PENH

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Examination committee:	Dr
	Dr
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ಕೆಬಕ್ಷಣಾಣಕಿಚಿತ

ការស្រាវជ្រាវនេះមានគោលបំណងដើម្បីសិក្សាពី ទំនាក់ទំនងរវាងម៉ោងធ្វើការ និង លទ្ធផលនៃការសិក្សានៅក្នុងវិទ្យាល័យមួយ ថាតើការធ្វើការច្រើនម៉ោង ហើយការអវត្តមាន ប៉ះពាល់ ដល់ការសិក្សារបស់សិស្សដែររឺទេ?

ការស្រាវជ្រាវនេះធ្វើតាមបែបបរិមាណវិស័យ ដោយប្រើប្រាស់កម្រងសំនូរ ដើម្បី
ប្រមូលទិន្នន័យ រួមទាំងអវត្តមាន និងលទ្ធផលនៃការសិក្សារបស់សិស្សដើម្បីវិភាគទិន្នន័យ ។

Lucky draw ត្រូវបានប្រើប្រាស់ដើម្បីជ្រើសរើសសិស្សចំនូន 96នាក់ ក្នុងនោះមាន សិស្សក្រីក្រ
ចំនូន48នាក់ និងសិស្សមិនក្រីក្រចំនូន48នាក់ ។ Computer Software ត្រូវបាន ប្រើប្រាស់ក្នុង
ការវិភាគ ទិន្នន័យនៅក្នុងការសិក្សានេះ ។

Independent sample t-test ត្រូវបានប្រើដើម្បី រកមធ្យមភាគនៃម៉ោងធ្វើការ អវត្តមាន សិស្ស និងលទ្ធផលនៃការសិក្សា រវាងសិស្សក្រីក្រ និងសិស្សមិនក្រីក្រ ថាតើភាពខុសគ្នានេះ កើតឡើងដោយចៃដន្យ រឺជាក់លាក់ ។ Correlation ក៏ត្រូវបានប្រើដើម្បី ពិនិត្យលើទំនាក់ទំនង រវាងម៉ោងធ្វើការ និងលទ្ធផលនៃការសិក្សា ហើយរវាងអវត្តមាន និងលទ្ធផលនៃការសិក្សា របស់សិស្សផងដែរ ។

លទ្ធផលនៃការសិក្សានេះបង្ហាញថា វាពិតជាមានភាពខុសគ្នានៃម៉ោងធ្វើការ អវត្តមាន និងលទ្ធផលនៃការសិក្សា រវាងសិស្សក្រីក្រ និងសិស្សមិនក្រីក្រ។ លទ្ធផលក៏ បានបង្ហាញផង ដែរថា ការធ្វើការច្រើនម៉ោង និងអវត្តមានច្រើនដង ពិតជា ជះឥទ្ធិពលលើការសិក្សា របស់ សិស្ស ពិតប្រាកដមែន ។

ABSTRACT

The purpose of this case study was to determine the relationship between hours spent on work and academic achievement of students at one high school whether working long hours and school absenteeism affected on students' school achievement or not.

The research instrument was a questionnaire, including school records of students' absenteeism and academic achievement. Lucky draw for random sampling was used to select 96 students (48 poor and 48 non-poor) to participate in the study. Computer software was used to analyze the data in this study. The collected data were analyzed by using frequency, percentage, mean, and standard deviation. The hypotheses were tested by using independent samples t-test, and Pearson correlation coefficient.

The main findings revealed that there were statistically significant differences in hours spent on work, school absenteeism, and academic achievement between the poor and non-poor students. The study also found that working long hours and more frequent absenteeism did negatively influence a students' academic achievement.

Key Terms: child labor, poor students, non-poor students, academic achievement, Bac II national examination result.

SUPERVISOR'S RESEARCH SUPERVISION STATEMENT

TO WHOM IT MAY CONCERN

Name of program:

Master of Education

Name of candidate:

Nhim Sokphyrom

Title of thesis: "The Relationship between Hours Spent on Work and Academic

Achievement: A Case Study of Students at One High School in Phnom Penh". This is to

certify that the research carried out for the above titled master's thesis was completed by

the above named candidate under my direct supervision. This thesis material has not been

used for any other degree. I played the following part in the preparation of this thesis:

Guidance in research problem development, conceptual framework, methodology, and

presentation and discussion of findings.

Supervisor(s)	(Sign):	 	•••
Supervisor(s)	(Sign):	 	••

Date:

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CANDIDATE'S STATEMENT

TO WHOM IT MAY CONCERN

This is to certify that the thesis that I (Nhim Sokphyrom) hereby present entitled "The Relationship between Hours Spent on Work and Academic Achievement: A Case Study of Students at One High School in Phnom Penh" for the degree of Master of Education at the Royal University of Phnom Penh is entirely my own work and, furthermore, that it has not been used to fulfill the requirements of any other qualification in whole or in part, at this or any other university or equivalent institution.

No reference to, or quotation from this document may be made without the written approval of the author.

Signed by (the Candidate):
Date:
Signed by Supervisor:
Data:

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LIST OF ABBREVIATIONS

DoL : Department of Labor

ILO : International Labor Organization

MoEYS : Ministry of Education, Youth and Sport

MoLVT : Ministry of Labor and Vocational Training

NGO : Non-Government Organization

NPRS : National Poverty Reduction Strategy

RUPP : Royal University of Phnom Penh

SIMPOC : Statistical Information and Monitoring Programme on Child Labor

TVET : Technical and Vocational Education and Training

UNDP : The United Nationals Development Program

UNESCO : United Nations Educational, Scientific, and Cultural Organization

UNICEF : United Nations Children's Fund

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Education is very important in every country, because without it a country cannot develop. This is because countries are made up of people, and education aims to help them develop as capable individuals and responsible members of society. In the modern world, the importance of highly specialized scientific and technical education is well recognized. But a broad education is also important, and a general education is an excellent form of preparation for flexible, knowledge-based careers that increasingly dominate the upper tiers of the modern labor force. Moreover, education is compulsory for all citizens as stated in most constitutions of all countries which recognize the importance of human resource development for socio-economic development and nation building. Thus, it is better to invest and depend on human resources for survival and development for the future (Goodluck-Cambodia, 2011).

Cambodia is one of the poorest countries and also one of the most youthful counties in Southeast Asia. The development of the education system in Cambodia has rapidly improved the system since the late 1990's when peace was finally restored. The United Nations Development Program (UNDP) estimated that 39.5% of the population live below the poverty line with the minimum income and basic items such as clothing and shelter required per day defined by the UNDP (UNDP, 2006).

Currently, Cambodia has an education participation rate of over 90% for children aged 6-11 years, but only one-third of young people aged 12-14 years take part in secondary school. The poverty of Cambodia is an overriding influence, affecting the availability of schools and teachers, the ability to manage curriculum quality, and the adequacy of provisions made for the education of children with particular forms of

disadvantage. The Cambodian government has been working to establish an education system for all children to be able to participate in school and gain general knowledge to at least grade nine or until they complete high school (grade 12). An essential component in Cambodia's education system is the nine years of compulsory education. Starting at ages 3-5 years old, children typically go to pre-primary school, primary school (grades 1-6) at ages 6-11 years old, secondary school (grades 7-9) at ages 12-14 years old, high school (grades 10-12) at age 15-17 years old, and higher education at ages 18 and above.

In addition, there is a Technical and Vocational Education and Training (TVET) sector (ages 15 and above). Nevertheless, compulsory education is not uniformly enforced in Cambodia. The school enrolment rate for primary school for both boys and girls is around 85%, consequently followed by a significant drop to 28% of children enrolling in secondary school (UNICEF, 2008, p. 3).

There are also significant issues with repetition in grade levels especially in the basic education grades. One reason for an uneven access to basic education in Cambodia is due to the fact that schools for the compulsory grades of education are not equally accessible to everyone. Geographical factors are problematic, living in rural areas may result in children, girls especially, having less access to school, which has been found to result in the completion of schooling on average being only half of the years for rurally located students compared to those living in urban areas (World Bank, 2006, p. 98).

School expenses can aggravate many families' financial burdens, and although enrollment fees have been abolished by government legislation, other types of informal and formal schooling fees including payment for uniforms, books, and other supplies have been increasingly demanded by schools and teachers (World Bank, 2006, p. 103). According to data from Right to Education (2006), child education in Cambodia costs

accounts for approximately two-thirds of the financial burden in their families, which would easily result in a child being withdrawn from school by their poor families to work.

Additionally, some parents in Cambodia do not understand the long-term benefits obtained from schooling, they perceive the current available job opportunities which are low-skill and low-wage to be worthier than continuing school. It further reflects another social circumstance of Cambodia which is lacking many high-skill and high-wage job opportunities in the labor market (Han & Seiichi, 2006). Thus, a disincentive is created as a consequence of all these factors so that parents feel discouraged to send their children to school. An overwhelming number of child laborers are likely to be out of school. The pull of work is also a key determinate in children dropping out of school. The attraction of work for children of poor families, and the choice that children and parents make between work and education, are key determinants of school progression rates, especially as children move from primary to lower secondary, and on to upper secondary level.

The impairment to physical, mental, and social health at the critical early stages of life has permanent effects on the quality of one's adult life. The overall consequence to society is even more permanent. In the long run, an under educated society cannot compete with a country that has a more skilled workforce and a society with higher technological standards. Thus, in a global economy an under educated society has a lower national capacity to fight poverty, a situation which perpetuates the cycle of poverty. The elimination of child labor is therefore a strategic measure to reduce poverty. Social measures which focus on giving children opportunities to develop their knowledge, skills, physical, moral, and mental compatibilities are the means by which society can create better economic opportunities, heighten the capabilities of the future work force, and lessen the vulnerability of the population. Child labor initiatives are in keeping with the National Poverty Reduction Strategy (NPRS) which call for creating opportunities for

the poor, enhancing family security, strengthening the capabilities of the Cambodian population, empowering the poor by addressing socially excluded sectors such as women and minority ethnic groups, and enhancing more people's participation in governance through community structures (Ministry of Labor and Vocational Training [MoLVT], 2009).

Child work initiatives have been linked with improving access and opportunities of parents to income so that their children can continue to go to school. Continuing education affords the citizens the necessary educational and technical skills which the market requires and contributes to the overall goal of facilitating economic growth through equitable access to the 9-year basic education and a quality and relevant postbasic education (MoLVT, 2009).

1.2 Problem Statement

The age structure of Cambodian high school students is commonly between 15 and 17 years old. At these ages, students can help their family directly or indirectly to earn especially those coming from poor households. High school students spend at least eight hours per week helping with the housework. There is a significant relationship between time students spend doing housework and income generated work (unpaid or paid) and their learning achievement.

About 90% of economically active children work for their families as unpaid labor. Economically, active children aged 7-14 years perform an average of almost 22 hours of economic actively each week (UNICEF, 2006, p. 25). The sub-group that combines economic activity and schooling puts in a slightly shorter average work week of 20 hours in economic activity (UNICEF, 2006, p. 25). This is still only a little less than the 23.5 hours spent on average studying each week. The total work burden of economically active children rises markedly when the non-economic activity that these

children perform is also considered. Non-economic activity adds an average of eight hours per week to the total work burden of economically active 7-14 years old, bringing total average weekly working to almost 31 hours (UNICEF, 2006, p. 26).

As in many countries in the region, cultural values in Cambodia tolerate, and even encourage child employment. Children's activities that contribute to family survival are often praised and the work they perform is seen as valuable experience for their future life. Indeed, work by children can be an essential part of the socialization process and a means for transmitting acquired skills from parents to child. Whilst viewed by a child's family as being necessary to family survival, it has a long term damaging effect on the student's educational and physical development. Poverty is the main reason why children become involved in working in Cambodia (Department of Labor – DoL, 2007, p. 1). In rural areas children are constricted by families to help in the farms; in urban areas children are encouraged or forced to get money (selling, begging, stealing, rubbish collecting, waitressing, and prostitution) to help parents earn a living (DoL, 2007, p. 1).

Once a child leaves school to support their family, they will not have the same opportunities to acquire enough knowledge and skills they need to pursue further education which may allow them to obtain quality employment in the future. This action in itself then contributes to the poverty cycle in their families, and holds back the economic growth of the entire country. Although some children still attend school, participation in work can lead to less time in school and lower levels of educational attainment (International Labor Organization – ILO, 2004, p. 2).

However students were still found working while studying, so researcher was wonder whether students working affected their academic achievement or not. As being a teacher at high school, the researcher has observed that there was an issue on the poor students who often got low academic achievement.

In light of the above comments which outline the broad context and some of the issues confronting school achievement for many students, the present study attempts to describe the current situation on the relationship between hours spent on work and academic achievement: A case study of students at one high school in Phnom Penh — which is useful for raising the awareness of the whole Cambodian society to take recognize the connection between child labor and the development of Cambodia's human resources.

1.3 Purposes of the Study

The purposes of the study were twofold:

- To find out what, if any differences in hours spent on work (time spent on household chore or family business those students do when they are not in school), school absenteeism, and academic achievement existed between poor students and non-poor students.
- To identify the relationship between hours spent on work and academic achievement, and school absenteeism and academic achievement of poor and non-poor students.

1.4 Research Questions

This study specifically seeks to answer the following questions:

- 1. Is there a significant difference in hours spent on work between poor students and non-poor students?
- 2. Is there a significant difference in school absenteeism between poor students and non-poor students?
- 3. Is there a significant difference in academic achievement between poor students and non-poor students?

- 4. Is there a significant relationship between hours spent on work and academic achievement?
- 5. Is there a significant relationship between school absenteeism and academic achievement?

1.5 Hypothesis

For the objectives of study, the following hypotheses were proposed:

H₁: There is a significant difference in hours spent on work between poor and non-poor students. The hours spent on work of poor students are significantly higher than that of non-poor students.

H₂: There is a significant difference in school absenteeism between poor and non-poor students. The school absenteeism of poor students is significantly higher than that of non-poor students.

H₃: There is a significant difference in academic achievement between poor and non-poor students. The score result of poor students is significantly lower than that of non-poor students.

H₄: There is a significant relationship between the numbers of hours spent on work and academic achievement. The result indicates that the longer hours the students work, the lower the score they get.

H₅: There is a significant relationship between school absenteeism and academic achievement. The result indicates that the longer times the students work, the greater the frequency of school absenteeism, and the lower the score they get.

1.6 Significance of the Study

From this exploratory study, the researcher will gain some valuable insights into the thinking about kinds of labor do the students do when they are not in school. It will also highlight the issue of the academic achievement of poor students who participate in work which can lead to less time in school resulting in disadvantage academically.

This study will provide a better understanding of the difference in hours spent on work between the two groups of poor and non-poor students in one high school in Phnom Penh, the difference in school absenteeism rates between the two groups, the difference in academic achievement between the two groups, the significance of the relationship between hours spent on work and academic achievement, and the significance of the relationship between school absenteeism and academic achievement. This information will be useful for planning for future cohorts of students as efforts are made to increase the quality of student learning amongst this most vulnerable 'at-risk' group.

This information can be use by the school to develop strategies designed to support and encourage poor children to continue their formal education. Thus, children have opportunities to develop not only their knowledge and skill in education, but also their physical, moral and mental capabilities. Moreover, it will contribute to raising the Cambodian government's awareness about the important link between child labor, school achievement and the development of Cambodia's human resources. Policymakers should use targeted measures in child labor-intensive regions to decrease child labor participation and find the strategy to make school times available to the at risk-group by cooperating with NGOs to use the fund to support their schooling.

1.7 Definition of Key Terms

The definitions of terms used in this study are provided in this section.

1. Child labor refers to the work done by a child below 18 years old studying at high school, either paid or unpaid, that inimically affects the mental, physical, social or moral progress of the child and prevents his/her education.

- **2. Poor students** refer to students who are receiving financial support for study supplies, informal payment for documents in all subjects, and some extra classes from different Non-Government Organizations (NGOs), or recognized by school as "poor".
- **3. Non-poor students** refer to students who do not receive any support from NGOs are classified as "non-poor".
 - **4.** Academic achievement refers to the Bac II National Examination score result.
- 5. Bac II National Examination result refer to the total average score of grade12 school total score and ten subjects of National Examination scores.

CHAPTER 2

LITERATURE REVIEW

This chapter discusses some of the literature reviewed as part of the process in developing the proposal. In collecting literature for this research, researcher accessed the websites of the Ministry of Education, Youth, and Sport (MoEYS); the United Nations Educational, Scientific, and Cultural Organization (UNESCO); United Nations Children's Fund (UNICEF); Google, Google scholar, ERIC, and the e-journal collection at James Cook University. Other reviews were obtained from articles as well as identifying several scholars who write in this field, for example: Patrinos and Psacharopoulos (1995), Ravallion and Wodon (2000), Boozer and Suri (2001), Duro (2001), Rosati and Rossi (2001), Ray and Lancaster (2004), Guarcello (2005), and Han and Seiichi (2006) who have all written and conducted research in this field. There were some difficulties in gaining access to some relevant useful sources because of password protection. Another challenge was locating articles written for the Cambodian context, which has limited the scope of the literature review for the Cambodian context. Moreover, many of the articles identified were secondary data sources, so it was sometimes difficult to cite or quote because some secondary sources did not provide detailed information.

The subheadings in the literature review show the sequence of the review. The chapter will start with reviewing some of the literatures on child labor and includes two subheadings: (first, poverty; second, parent's education level); types of child labor; and the impact of child labor with three subheadings: (the impact of attendance, the impact of academic achievement, attendance affects academic achievement).

2.1 Child Labor

Child labor is an enormous and widespread problem throughout the world, especially in developing countries due to entrenched poverty and economic deficiency.

The ILO Global Report on Child Labor (2010) estimated that as many 215 million boys and girls were engaged in child labor. In Cambodia like many other developing countries, poverty is the principal reason for the existence of child labor. Poor families who lack capital resources, low skills and education, and have limited economic opportunities, are likely to send their children to work. The Cambodia Poverty Assessment places one-third of its more than 14 million populations live under the poverty line. About fifty percent of the total populations are young people under 18 years. Cambodia's child labor Survey (2001) estimated that among children aged 5-14 years, about 45% were "working children" suggesting that nearly 1 in every 2 children worked. More boys than girls were at work. Almost 90% of working children aged between 5-17 years combined school and work. Most working children were from rural areas (MoLVT, 2009).

2.1.1 Poverty

Child labor is a complex problem and numerous factors influence whether children work or not. Poverty emerges as the most compelling reason why children work. Poverty forces children to forgo school to support their families' most basic needs. Some families cannot afford the opportunity cost of sending their children to school. The time that their children would spend in class translates to lose times that the children could be contributing to the family income. In a Cambodian based (2006) study of child labor it was noted that "Either family poverty or the need to supplement family income are given as the primary motives in the case of three out of every four working children" (UNICEF, 2006, p. iv). Poor households spend the bulk of their income on food and the income provided by working children is often critical to their survival.

According to the Mirror (2009), poverty is still a major problem in Cambodia and is a major factor keeping students out of school. According to education experts, many Khmer parents hold the opinion that their children can go to school only if they do not

have financial problems, many poor families face the situation where the breadwinners do not have jobs or have poorly paid jobs. Because the income is not stable, families have to struggle to feed their children, making the expenses for travelling to school, for school clothes, and for other materials, their last priority.

Given the costs associated with school attendance, the family income level is a good predictor of a child attending school or not. For instance, in Pakistan, Ray (2000) proved that higher household income recorded a higher mean level of schooling. Much theoretical and empirical research has presented evidence that household poverty (household income identified below the minimum national standard level) either hinders investment in schooling, or compels the practice of child labor, or both (Basu & Van, 1998; Gunnarsson & Sanchez, 2004).

A recent Cambodian based study (UNICEF, 2006, p. 41) found that:

Household wealth has a significant impact on child schooling. The differences in enrolment rates by household wealth are more marked at early ages (6-11) and later ages (15-17). This indicates that household wealth plays a particularly crucial role on getting children in school early (which is further confirmed by the results below on school entry) and allowing them to gain access to the more expensive secondary school... Household wealth also reduces the probability of working, but only among boys and only at high levels of wealth. By providing greater resources and insurance against shocks, household wealth reduces the need for child work. However, household wealth may also be associated with more child work to the extent that wealthy families tend to own productive assets, which increase the potential value of child economic activity. These two opposing forces may help explain why household wealth plays a less significant role on child work than it does on schooling.

However, poverty is not the only factor in child labor and cannot explain all types of employment and servitude. Countries may be equally poor and yet have relatively high

or relatively low levels of child labor. Other factors include barriers to education where basic education is not free in all countries and is not always available for all children, especially in remote rural areas. Where schools are available, the quality of education can be poor and the content not relevant. In situations where education is not affordable or parents see no value in education, children are sent to work, rather than to school.

Culture and tradition is another factor especially when there are few opportunities open to children with more education, parents are likely to share a cultural norm in which labor is seen as the most productive use of a child's time. Children are often expected to follow in their parents' footsteps and are frequently summoned to help other members of the family, often at a young age.

Through the review of this section of the literature, numerous studies have revealed that there are many reasons contributing to child labor such as poverty (Basu & Van, 1998; Ray, 2000; Gunnarsson & Sanchez, 2004; UNICEF, 2006; The Mirror, 2009), the barriers to education means it is not always available for all children, and in some places it is culture and tradition which may give few opportunities to children to access more education.

To sum up, poverty can lead the children' lives meet many obstacles, especially they leave school in order to help their parents to earn a living. Moreover, barriers to education where the quality of education can be weak, culture and tradition were also limited children. As the results, the poverty, culture and tradition can be lead as the poverty cycle.

2.1.2 Parents' Education Levels

The most consistent finding in the theoretical and empirical research reviewed on the link between parental education levels and children's school attendance is that low parental educational attainment directly contributes to underinvestment in schooling and increased practice of child labor (Boozer & Suri, 2001; Han & Seiichi, 2006). Niels, Sudharshan and Sangeeta (2002) also confirmed the negative correlation between parent's education and the likelihood of children's only going to work, and a positive correlation between parents' education and the likelihood of children's school attending only.

Kim and Zepeda (2004) found a positive relationship between the parents' education level and the likelihood of children's going to work, however, they also found that the higher the parents' education level, the fewer hours the children will work. Educated parents were more likely to be knowledgeable about the importance of education for children and keep children in school by creating an environment conducive for learning (such as directly helping with schoolwork).

UNICEF (2006) reported that:

Parental education has a significantly positive effect on children's time use. The effect of parental education seems to be greater among 6-11 aged children, suggesting that parental education matters the most for gaining access to school. Mother's education in particular appears to increase the probability that a child attends school and reduces the probability that he or she is inactive or engaged in work (p. 40).

Through the review of some of the literature on this topic various studies revealed that the higher the parents' education level, the fewer hours the children will work. These were supported by previous researcher (Boozer & Suri, 2001; Han & Seiichi, 2006; Niels et al., 2002; Kim & Zepeda, 2004). Educated parents were more likely to be knowledgeable about the importance of education for children and keep children in school by creating an environment conducive for learning (UNICEF, 2006).

To sum up, parents' education levels was a factor that can enforce children to involve in education for their improvement of lives.

2.2 Types of Child Labor

Child labor, in its simplest terms, refers to the work (paid or unpaid) that children do. Child labor commonly occurs when children perform labor on a regular basis, often for low wages or no pay at all. In some developing countries they are forced into doing so, as opposed to having the opportunity to receive an education. This work varies but often includes tasks such as assembly, making clothes, cleaning, and selling products.

Regarding work and education, children in developing countries have several options such as going to school, work in the market, work in the family business, housework, a combination of these activities, or do none of them. Many children in developing countries are neither enrolled in school nor engaged in paid employment. Although these so-called "idle" children are not gainfully employed, many of them tend to work in more hidden forms of child labor, like work in the household, at the family farm, or in the family business. This "idleness-problem" and the fact that these children might be involved in these hidden forms of child labor has become more and more recognized (Ray & Lancaster, 2005; Amin, Quayes & Rivers, 2006). Still, comparative research into the factors that influence this kind of child labor is largely lacking.

Work done at home is often not included in employment statistics, resulting in a restricted knowledge about the frequency of children performing these tasks. The few available statistics indicate that the percentage of these children varies among countries and regions, that up to a quarter of the school-aged children may belong to this group, and that the majority are girls (Cigno, Rosati & Tzannatos, 2002; Biggeri, Guarcello, Lyon & Rosati, 2003). Given the scale of this problem, it is important to gain insight into its determinants so that policies aimed at reducing it can be developed.

The different faces of child labor may have different causes; the factors that determine whether a child is involved in market, family business, or domestic work are

not necessarily alike. This point aims at getting a better understanding of the child labor phenomenon by determining the factors that influence the engagement of children in two hidden forms of child labor: housework (including activities as shopping, collecting firewood, cleaning, fetching water, or caring for children) and family business work (including activities as farm work, work in family owned shop or workplace, and selling goods from the family's farm or business in the street and at the market).

Previous child labor studies could not study these forms of child labor well because of data restrictions. Elsevier (2011) used a unique new data source, the 2005-2006 waves of the UNICEF Multiple Indicator Cluster Surveys that allowed for the presenting of detailed information on the prevalence of these two forms of child labor and their determinants at household and context level for 178,000 children in 16 low-income countries in Africa and Asia. This report reserves the term housework for activities in the household (chores, housekeeping) that do not contribute economically to the household. Family business work consists of unpaid activities at the family farm, workplace, or shop that do contribute economically to the household. The report stated that about 30% of African children and 11% of Asian children work over 15 hours a week in domestic work (household) and family business. Girls are more involved in housework and boys are more in family business work, but this division is not strict. Most (80-90%) of the variation is due to household factors. Children worked less in urban areas, less traditional areas, and more educated areas.

As mentioned in the literature reviewed above, the research has indicated that there are two types of child labor (paid and unpaid) (Elsevier, 2011). However, within unpaid work there are, like work in the household, at the family farm, or in the family business which considered by (Cigno, Rosati & Tzannatos, 2002; Biggeri et al., 2003; Ray & Lancaster, 2005; Amin, Quayes & Rivers, 2006). The fact that these children

might be involved in these hidden forms of child labor has become more and more recognized.

To sum up, the two types of child work were paid and unpaid work. The most unpaid work that children always practice was hidden forms of child labor in household work, and family's business.

2.3 The Impact of Child Labor

The consequences of child labor on school attendance and achievement in developing countries have been widely discussed by studies with mixed results.

2.3.1 The Impact of Attendance

A study in Bangladesh by Ravallion and Wodon (2000) revealed that child labor was harmful to school attendance and school attainment. Also, a study conducted by Rosati and Rossi (2001) showed that the effect of child labor could affect a child's school attendance. A similar study in Ghana by Boozer and Suri (2001) focused on children aged 7-18 years and found that on average, working students cut down school attendance by 0.38 hours for each additional working hour. In another similar study in Belize, Cambodia, Namibia, Panama, Philippines, Portugal, and Sri Lanka, Ray and Lancaster (2004) found that children's work, even in limited amounts negatively influenced their school attendance and academic achievement.

Likewise, a study conducted by Patrinos and Psacharopoulos (1995) found that factors leading to an increase in child labor also contributed to decreased school attendance and increased chance of school repetition. In a study by Guarcello (2005), he explored the impact of children's work on school attendance in five countries: Brazil, Kenya, Lebanon, Sri Lanka, and Turkey, and the results showed that a child's work reduced the rate of school retention, and in some countries the number of working hours also increased the probability of dropping out.

All of the studies described above stressed the reality that a child's work negatively impacted their school attendance (Ravallion & Wodon, 2000; Rosati & Rossi, 2001; Boozer & Suri, 2001; Ray and Lancaster, 2004). Psacharopoulos and Patrinos (1995) added that a child's involvement in labor contributed to decreased school attendance and increased chance of academic repetition. A child's work also reduced the rate of school retention and increased the probability of dropping out (Guarcello, 2005).

2.3.2 The Impact of Academic Achievement

A study by Patrinos and Psacharopoulos (1995) illustrated that every child reduced their educational achievement as a result of their working. Similarly, a study in Bangladesh found that child labor also impacted on academic achievement (Ravallion & Wondon, 2000). Likewise, a study in Pakistan and Nicaragua by Rosati and Rossi (2001) found that a child's working impacted on their school performance and even an hour of work per day increased the probability of failing at school, so the results implied that not only working versus not working but also the number of hours worked was a detrimental factor that affects school achievement.

A study in Argentina by Duro (2001) who was exploring the effects of child labor on academic achievement in developing countries showed that working children obtained lower scores in every subject test compared to their non- working peers.

Another study by Ray and Lancaster (2004) also explored hours spent on work by children on schooling effects by utilizing multi-country evidence based on SIMPOC data which was collected in Belize, Cambodia, Namibia, Panama, Philippines, Portugal, and Sri Lanka. Analysis of the data found that children's work, even in limited amounts negatively influenced both their school attendance and achievement, and in some countries, such as Cambodia, hours spent on work detrimentally reduced children's ability to read and write.

In a study by Guarcello (2005) which explored the impact of a child's work on school performance in five countries: Brazil, Kenya, Lebanon, Sri Lanka, and Turkey the results revealed that being engaged in work reduced the rate of school retention, and the number of hours spent on work also increased the probability of dropping out from school.

Through a review of literature, the various studies have consistently argued that children's work negatively influenced their academic achievement which studied by (Patrinos & Psacharopoulos, 1995; Ravallion & Wondon, 2000; Ray & Rossi, 2001; Duro, 2001; Ray & Lancaster, 2004). Child's work also increased the probability of dropping out of school (Guarcello, 2005).

2.3.3 Attendance Affects Academic Achievement

In a study in Ohio by Roby (2003) on the relationship between student attendance and student achievement at grades 4, 6, 9, and 12 the findings revealed that the correlation of student attendance and student achievement started from moderate to strong when comparing attendance and achievement rate.

In a study in Nigeria by Oghuvbu (2010) on the correlation between attendance and academic performance of students in secondary schools (58 secondary schools were used in this study) and the result stated that school attendance influenced student academic performance.

Through the review of some literatures on various studies by Roby (2003); Oghuvbu (2010) revealed that attendance affects academic achievement.

2.4 Summary of the Chapter

To sum up of this chapter, child labor occurred on children from families with difficult economic situations and there was little opportunity for schooling or education. It is common that a majority of them leave school to work for their family's survival.

Children are very unlikely to be provided with enough time and encouraging atmosphere to go to school, to study, or to develop other skills necessary for developing skills that will break them from the poverty cycle. As a result, their future life and career will have fewer opportunities compared to those who have access to education.

Under the rubric of human capital theory, education is not the only category that can confer on people the necessary skills and knowledge. Work can also instill children with good knowledge, attitudes of responsibility, cooperation, or other forms of skills that are otherwise unobtainable and which will be utilized in future work (Ruhn, 1997; Osterman, 1980). This concept is accepted in developing regions such as Latin American to promote the positive impact of light work by children (c.f Boyden, 1999). However, it should be noted the idea that "working gives children something to learn" is observed in the adolescent work context. This is because in reality, most child labor takes place in either agriculture or household chores where such accumulated skills can hardly be obtained. Therefore, most literature implies that such human capital accumulation for the younger children can only take place at school but not in the workforce (Rosati & Rossi, 2001; Post & Pong, 2000; Sedlacek et al., 2003). Child labor is considered harmful to children's welfare because it may "interfere with human capital accumulation" affecting the present and future health of the child (Rosati & Rossi, 2001, p. 3).

CHAPTER 3

RESEARCH METHODOLOGY

This chapter described the research design of the data collection tool, sampling methods, data collection procedures and data analysis methods which were used to conduct this small study. It has included a description of some limitations of the various methods and a discussion of some of the ethical issues that needed to be addressed to conduct the research.

3.1 Sampling Methods

3.1.1 Location

Convenience sampling was the sampling method selected for identifying the location of the school in this study, because this school was the only school in the area that had clearly defined characteristics for poor and non-poor students. The school was also the one where the researcher has worked as a grade 11 and 12 teacher, and it was easy for the researcher to gain permission to have access to the students.

The strength of this kind of sampling method is that the researcher can choose any location where there is easy access to respondents without needing to travel distances.

However, a limitation for this sampling method is that the findings cannot be generalized to other schools (Cohen, Manion & Morrison, 2007).

3.1.2 Participants

There were 12 classes for grade 12 at this high school in academic year 2012-2013 with approximately 40 students in each class in which the poor students (who was an organization- supported students and school- recognized poor student) and non-poor students (a guardian - supported student). The poor and non-poor students in grade 12 were in 12 classes. Random sampling was used to select the four poor and four non-poor students from every class, with a total of 96 students in the sample, 48 were poor and

48 were non-poor students. They were asked to complete the questionnaires during a lesson time. The researcher also explained that they were free to choose not to participate.

According to Berg (2009) simple random sampling is the process where every individual has equal opportunity to be selected and participate in the study. It must represent a whole population. Strengths of random sampling method are unbiased statistic and when a sample is done randomly, and then every item in the population has an equal chance of being selected. Nevertheless, a limitation of random sampling method is that a complete list of all the members of the population is needed and the list of population must be up-to-date. This list is usually not available for a large population (http://explorable.com/simple-random-sampling.htm).

3.2 Research Instrument

Cohen, Manion and Morrison (2007) stressed that there are many methods for data collection "Questionnaires, interviews, accounts, observation, tests, personal constructs and role-play" (pp. 317-456). The techniques selected are determined by the type of research being taken- whether qualitative or quantitative in design. The technique used to collect primary data in this study was the questionnaire (pen and pencil survey) method.

The strengths of the questionnaire include that the researcher is be able to use a large number of questions, and it can provide the respondents an opportunity to express their own perspectives and comments. Furthermore, the researcher can collect a large amount of data in less time with a great population of participants compared to that of interview. Some of the method's limitations are that the participant may not understand the questions and if the researcher is absent the participant is unable to clarify the meaning of a question. Moreover, the participants can only respond based on the set questions (Anderson & Arsenault, 1998).

Questionnaire was used to collect the data from grade 12 students at a high school. Students' attendance and academic achievement list (Bac II score result) were taken from school principal.

3.2.1 Questionnaire Development

In this study, the researcher used a questionnaire to collect the primary data. The 96 participants were selected from 12 classes in grade 12 at a high school to take part in this study.

There are three parts to the questionnaire that were developed by the researcher based on information found in the literature. The first section of the questionnaire collected data about the students' background (gender, age, and whether they had external support for study) by using closed ended questions.

The second section collected information about the parents' levels of education(father, and mother's education, father's and mother's occupation) by using closed ended questions, this information was considered possibly of value to the study and was collected in line with studies by Basu and Van (1998), Ray (2000), Boozer and Suri (2001), Niels et al., (2002), Kim and Zepeda (2004), Gunnnarsson and Sanchez (2004), Han and Seiichi (2006), UNICEF (2006).

The third section of the questionnaire focused on details about the students and their working (whether they work or not) used a closed ended question, and the open ended question was used to ask how many hours students worked for per day. This information was collected for its value to the study and this matched with studies by several researchers (Ray & Lancaster, 2005; Amin, Quayes & Rivers, 2006; Elsevier, 2011). The majority of questions used the forced choice type of question.

The questionnaire did also seek information from the students about their attendance and academic achievement; besides, the researcher was given access to the official school records which were considered as providing more reliable data.

3.2.2 Questionnaire Structure.

3.2.2.1 Closed Ended/Forced Choice Questions.

There were 10 closed ended questions used in the questionnaire. Some strengths of this question type is that it is often easier and quicker for the researcher to record responses, and it is also easy and quick for respondents to tick boxes and they might be more likely to answer all the questions. Some limitations include that respondents can only answer in a predefined way which may not match their actual opinion and they may become frustrated, so new issues cannot be raised (Dawson, 2007).

3.2.2.2 Open Ended Questions.

There was 1 open ended questions used in the questionnaire. Strength of this question type is to allow for richer and fuller information if the respondents are verbally expressive and cooperative. A limitation includes that respondents may be unwilling to compose lengthy written responses in questionnaires (Dawson, 2007).

3.2.3 Pilot Testing

To avoid any unexpected mistakes in collecting data for the study, the researcher prepared the questionnaire for a pilot test study which was used to discover any misunderstandings or confusions before the final questionnaire was used in the study.

The pilot test was conducted with 15 poor and 15 non-poor students at grade levels 10, 11, and 12 in the same school as the final study.

The questionnaire was initially developed in English (Appendix A) and was translated into Khmer because the participants were not able to read it in English.

The researcher asked another lecturer with skills and experience in translation to check the Khmer translation (Appendix B) in order to make sure that the meanings of the questions were the same between English and Khmer.

When the questionnaire had been translated from English into Khmer, the researcher provided the Khmer language questionnaire to a small group of students in grade 10, 11, and 12 to fill in for a pilot study. This was concluded as part of a subject undertaken in the study program of the researcher. In the final study only grade 12 students were used. The researcher observed the participants completing the questionnaire and took notes of phrases, sentences, or some points, of which they were not clear, or did not understand. Then, the researcher restructured the sequence of questions and altered some wording to better suit the needs of the students (Appendix C &D).

3.2.4 Attendance and Academic Records

Students' attendance and academic achievement recorded by the school was accessed and used as part of the data analysis. School attendance in this study focused from the month of October 2012 to May 2013. The students' final scores in the national examination (Bac II) were used as indicators of academic achievement for the poor and non-poor students.

3.3 Data Collection Procedures

After the questionnaire was developed and adjusted after initial pilot testing, the researcher asked the high school principal for permission to collect data by administering the questionnaire in the classrooms. In the classroom, the researcher explained the purpose of the questionnaire to the students and described how to complete them, and let them ask questions if they had any. Also students were informed that they were free to choose not to participate.

The questionnaire was distributed to all of voluntary participating students in the class during their lesson time. Students were also provided with a small piece of paper to complete with their name, class, and phone number for attaching with their questionnaire. This was needed to assist the researcher to identify students with their school attendance and academic achievement (Bac II scores) records. Furthermore, there were two boxes for students to put their completed questionnaire with the identifying piece of paper (one box for poor students, another box for non-poor students). Then, four completed questionnaires were selected from each box using lucky draw. This method was used in every class.

3.4 Ethical Considerations

To collect the data, a number of ethical issues were considered. When developing the sample, the researcher was given formal permission from the principal of a high school, and the teachers and student participants prior to conducting this study. Moreover, the researcher verbally informed each participant about the nature and purpose of the research and attempted to avoid any sense of coercion by inviting students to participate voluntarily without being forced or tricked. In addition, the researcher showed great respect for the participants' privacy and time. For instance, the questionnaire was not administered during their break times. The researcher attempted to answer fully any questions that arose and kept confidential all the participants' names. The hard copy questionnaire did not include any identifiers, and the names and identifying data needed to match academic results to individually completed questionnaires was kept separate from the questionnaires meaning only the researcher could match individuals to completed questionnaires.

Finally, in the process of collecting data, participants were not given any rewards or incentives to motivate them to participate.

3.5 Data Analysis

The computer software was used to analyze the data of this study. The analysis was conducted by using frequency to compute the descriptive statistics of two different groups of poor and non-poor students to see the specific number of participants in gender, work besides study, type of students' work, father and mother's education levels, and father and mother's occupation.

The mean was used to see what, if any, differences existed between hours spent on work, frequency of school absenteeism and academic achievement of the poor and non-poor students.

Likewise, an independent sample t- test was used to determine the mean of hours spent on work, frequency of absenteeism, and academic achievement between the poor and non-poor students looking for any statistically significant difference in those means.

Finally, a Correlation Coefficients (Pearson *r*) was conducted to see if there is a statistically significant relationship between hours spent on work and academic achievement, or between absenteeism and academic achievement.

CHAPTER 4

RESEARCH RESULTS AND DISCUSSION

The purpose of this study was to determine if there were statistically significant differences in hours spent on work, absenteeism frequency, and academic achievement between the poor and non-poor grade 12 students; and to explore whether there was a statistically significant relationship between hours spent on work and academic achievement, and absenteeism frequency and academic achievement. The samples were 96 (48 poor and 48 non-poor) students, selecting by using simple random sampling of lucky draw from totally 12 classes of grade 12 in academic year 2012-2013 in which there were about 40 students in each class. The study was conducted as quantitative research by using a questionnaire and including school records of students' absenteeism and academic achievement. Computer software was used to analysis the data in this study such as frequency, mean, standard deviation, minimum, maximum, independent sample t-test, p-value, and Pearson correlation.

4.1 Results from Demographic

A frequency was run to compute the descriptive statistics of two different groups of poor and non-poor students to see the specific number of participants in gender, work besides study, type of students' work, father and mother's education levels, and father and mother's occupation. The results obtained from this descriptive statistics were presented in Table 1, 2, 3, and 4 below.

The mean was used to see what, if any, differences existed between hours spent on work, frequency of school absenteeism and academic achievement of the poor and non-poor students. The results obtained from this mean statistics were presented in Table 5, 6, and 7 below.

Table 1

Numbers of Poor and Non-poor Students (n=96)

Variable	Poor Students (n=48)	Non-poor Students (n=48)	Total	(n=96)
	#	#	#	%
Gender				
Male	24	22	46	47.9
Female	24	26	50	52.1
Work besides study				
Yes	48	47	95	99.0
No	0	1	1	1.0

Table 1 reported that the participants consisted of 96 students including 46 males and 50 females of whom 48 were poor students and 48 were non-poor students. All the poor students reported that they were involved in work as well as study; however, only 1 non-poor student reported not working while attending school.

Table 2

Types of Students' Work for Poor and Non-poor Students (n=96)

Students		Type of Students' Work	
<u>_</u>	Do Housework	Help Parents in Doing Business	Others
Poor students	30 (62.6%)	4 (8.3%)	14 (29.1%)
Non-poor students	42 (89.3%)	3 (6.4%)	2 (4.3%)

As reported in Table 2, most of the non-poor students do housework more than those of poor students. While the poor students helped their parents in doing business, and even do other types of works more than those of non-poor students.

Table 3

Father and Mother's Education Level of Poor and Non-poor Students (n=96)

Variable	Type of		Leve	el of Education	1	
	Students	Under Bac	Bac II	Association	Bachelor	Master
		II				
	Poor	45 (93.8%)	3 (6.2%)	0	0	0
Father	Non-poor	12 (25%)	18 (37.5%)	4 (8.3%)	10 (20.8%)	4 (8.3%)
Mother	Poor	44 (91.7%)	4 (8.3%)	0	0	0
	Non-poor	27 (56.2%)	11 (22.9%)	1 (2.1%)	8 (16.7%)	1 (2.1%)

The table provided information about the difference of father and mother's education among two groups of students. The most frequent level of father's education was Under BacII (93.8%) for the poor students. The next highest frequency was BacII with 6.2% of poor students. In contrast, the father's education level in the non-poor group was spread across all levels of education up to Master's degree. Furthermore, 91.7% of the mother's level of education of poor students was Under BacII. The BacII degree accounted for less than 9% with no evidence found of association, Bachelor, or Master's degree.

Table 4

Father and Mother's Occupation of Poor and Non-poor Students (n=96)

	Occup Type of			
Variable	Students	Official Staff	Private Staff	Others
	Poor	2 (4.2%)	1 (2.1%)	45 (93.8%)
Father Non-	Non-poor	20 (41.7%)	6 (12.5%)	22 (45.8%)
	Poor	1 (2.1%)	2 (4.2%)	45 (93.8)
Mother	Non-poor	9 (18.8%)	2 (4.2%)	37 (77.1%)

Table 4 illustrated the frequency of father and mother's occupation for poor students was on others (93.8%) that they were not employed by the government or an organization, but they were most likely self-employed. Among the non-poor students, there were more father's employed by the government even whilst a majority were reported as others (45.8%). The mothers for both groups were predominantly in the others group but many more mothers of non-poor students were employed by the government than was found among mothers of the poor students.

Table 5

Mean Hours Spent on Work per day for Poor and Non-poor Students (n=96)

Variable	M	S.D.	Minimum	Maximum
Poor	3.50	1.92	1.00	9.00
Non-poor	2.04	.69	1.00	3.00

Table 5 showed that the mean number of hours spent on work for poor students was greater (M=3.50, S.D.=1.92), than for the non-poor students (M=2.04, S.D.=.69). Clearly the poor students spent more hours on work than those of non-poor students per day.

Table 6

Mean of School Absenteeism for Poor and Non-poor Students (n=96)

Variable	M	S.D.	Minimum	Maximum
Poor	5.45	3.12	1.00	12.00
Non-poor	2.56	2.15	.00	10.00

In Table 6, it was clearly shown that the poor students were absent from school with greater frequency (M=5.45, S.D.=3.12), than their non-poor peers (M=2.56, S.D.=2.15).

Table 7

Mean of Bac II Score Result for Poor and Non-poor Students (n=96)

Variable	M	S.D.	Minimum	Maximum
Poor	68.62	19.59	16.52	99.79
Non-poor	85.52	12.06	46.75	99.79

Table 7 showed the mean Bac II examination results of poor students (M=68.62, S.D.=19.59) which was clearly lower than their non-poor peers (M=85.52, SD= 12.06).

4.2 Results from Research Questions

An independent sample t- test was used to determine the mean of hours spent on work, frequency of absenteeism, and academic achievement between the poor and non-poor students looking for any statistically significant difference in those means.

Correlation Coefficients (Pearson *r*) was conducted to see if there is a statistically significant relationship between hours spent on work and academic achievement, or between absenteeism and academic achievement. The main findings were mentioned as follow:

4.2.1 Research Question One: Is there a significant difference in hours spent on work between poor students and non-poor students?

Table 8

Differences between poor and non-poor students in Hours Spent on Work per day (n=96)

Variable	M	S.D.	t	df	P-value
Poor	3.50	1.92	4.00	02	000
Non-poor	2.04	.69	4.89	93	.000

As seen in Table 8, the mean number of hours spent on work by the poor students was significantly higher (M=3.50, S.D.=1.92) than that of the non-poor students (M=2.04, S.D.=.69), t (93) = 4.89, p <.05. The result shown that poor students spent moderately more 75% of time than non-poor students.

4.2.2 Research Question Two: Is there a significant difference in school absenteeism between poor students and non-poor students?

Table 9

Differences between poor and non-poor students in Absenteeism (n=96)

Variable	M	S.D.	t	df	P-value
Poor	5.45	3.12			
Non-poor	2.56	2.15	5.29	94	.000

In Table 9 showed, it was clearly evident that the absenteeism mean for the poor students was significantly higher (M=5.45, SD=3.12) than that of non-poor students (M=2.56, SD=2.15), t (94) = 5.29, p <.05. The result indicated that poor students absent strongly more two times than non-poor students.

4.2.3 Research Question Three: Is there a significant difference in academic achievement between poor students and non-poor students?

Table 10

Differences between poor and non-poor students in Bac II Score Result (n=96)

Poor 68.62 19.59			
Non-poor 85.52 12.06	-5.09	94	.000

The Table 10 highlighted that the mean Bac II examination results of the poor students was statistically significantly lower (M=68.62, S.D.=19.59) than that of the non-poor students (M=85.52, S.D.= 12.06), t (94) = -5.09, p <.05. The result illustrated that poor students got weakly lower score 20% than non-poor students.

4.2.4 Research Question Four: Is there a significant relationship between the number of hours spent on work and academic achievement?

Table 11

Correlation between Hours Spent on Work and Bac II Score Result (n=96)

1	2
-	
274**	-
	274**

Note: **p<.01

Table 11 clearly illustrated that there was a statistically significant moderate negative relationship between hours spent on work and the Bac II scores, and the finding indicated that the more hours the students worked, the lower their academic achievement.

4.2.5 Research Question Five: Is there a significant relationship between school absenteeism and academic achievement?

Table 12

Correlation between Absenteeism and Bac II Score Result (n=96)

Variables	1	2
1. Times Absent	-	_
2. Bac II Score Result	362 ^{**}	-

Note: **p<.01

Tables 12 also revealed a statistically significant moderate negative relationship between the rate of absenteeism and their academic achievements as measured in end of year examination Bac II results. The finding indicated that the more times the students absent, the lower score they got.

4.3 Discussion of the Main Findings

In order to discuss the relationship between hours spent on work and academic achievement at a high school, this study had the following specific purposes: (1) to find out what, if any difference in hours spent on work, school absenteeism, and academic achievement existed between poor students and non-poor students; and (2) to identify the relationship between hours spent on work and academic achievement, and school absenteeism and academic achievement.

Below is the discussions of the following aspects based on the findings:

differences in hours spent on work between poor students and non-poor students,

differences in school absenteeism between poor students and non-poor students,

differences in academic achievement between poor students and non-poor students,

relationship between the number of hours spent on work and academic achievement, and

relationship between school absenteeism and academic achievement.

4.3.1 Differences in Hours Spent on Work between Poor Students and Non-poor Students

Answers to this question are based on the findings seen in Table 8 and the analysis revealed that there was a statistically significant moderately difference in the number of hours spent on work between the poor and non-poor students. This finding was in line with Basu and Van (1998); Ray (2000); Gunnarsson and Sanchez (2004); UNICEF (2006) which found that the family's economic situation required poor students to contribute to the family's hours working.

Poor families might rely upon the earnings of children and adolescents to meet the family's basic needs. According to Table 8, the results demonstrated the possibility that work could be combined with schooling and had minimum impact on academic achievement if work was limited to a maximum of 2 hours per day. Most researchers and various national and international institutes have argued that poverty was the main reason that pushed children to become workers. The family income status is the factor that they need their children to work for the family income, so children don't have enough chance to invest themselves in their education for their future lives.

Regarding the effects of parental education, it was expected that children of parents with higher levels of education would be less involved in child labor. Parents who had received some education themselves understand the value of schooling and its possible returns and will, therefore, be more motivated to send their children to school. However, if parents cannot afford to pay for schooling and paid labor is not a valid alternative, keeping children at home and letting them help with the housework or in the family business may seem a reasonable option for poor parents.

4.3.2 Differences in School Absenteeism between Poor Students and Non-poor Students

As can be seen from Table 9, the analysis found there was a statistically significant strongly difference in the frequency of student absenteeism between the poor and non-poor students. It is clear that poor students were not only working more hours per day than their non-poor peers but also they were also absent from school more days. This finding was supported by Psacharopoulos and Patrinos (1995), Ravallion and Wondon (2000), Rosati and Rossi (2001) and Baro and Suri (2001) who all stressed the negative impact of a child's work on their school attendance.

Poverty can force children to leave school to support their family's most basic needs, and their family could not afford the opportunity cost of sending them to school. The time that children would spend in class can be translated by parents as time lost when they could be contributing to the family income. Some parents may hold the opinion that their children can go to school only if they don't have financial problems. The family income level is a good predictor of a child attending school or not, because when the income is not stable, families have to struggle to feed their children, making the expenses for travelling to school, for school clothes, and for other materials, their last priority. However, the barriers to education where basic education is not free and available for all children, or where school is available but the quality of education can be poor as the content is not relevant – parents see no value in education that they send their children to work rather than to school.

4.3.3 Differences in Academic Achievement between Poor Students and Non-poor Students

The analysis (Table 10) showed that there was a statistically significant weakly difference in academic achievement between the poor and non-poor students at the high

Psacharopoulos (1995); Ravallion and Wondon (2000); Duro (2001); Ray and Rossi (2001) who argued that children's work influenced their academic achievement.

To be more likely to work and to work long hours, high school students experience more negative effects of each additional hour worked on their school performance. Child labor, whether it occurs inside or outside the home (household chores or family business), caused a decrease in school achievement and the negative effects were stronger for the poor students. A higher proportion of students who were not working achieved a superior score on the exams compared to students who worked. The result suggests strongly that working and studying simultaneously can hinder the acquisition and development of knowledge needed to pass examinations. Nevertheless, if the children have enough time to be involved in learning without worrying about household chores or family business, they can pursue their education and by improving their knowledge to pass examinations which provide pathways to further learning and employment opportunities.

4.3.4 Relationship between the Number of Hours Spent on Work and Academic Achievement

A statistically significant moderate negative relationship between hours spent on work and student academic achievement was found in this study (Table 11). These findings reflect other studies conducted by Patrinos and Psacharopoulos (1995); Ravallion and Wondon's (2000); Duro (2001); Ray and Rossi (2001) who argued that children's work influenced their academic achievement.

Consequently, if children work more hours a day, they are tired and lack the energy needed for learning when at school which has a negative impact on their academic achievement. When this happens day by day, it can demotivate children toward their own learning which lead to a negative effect on the academic achievement.

4.3.5 Relationship between School Absenteeism and Academic Achievement

Table 12 also reported the existence of a statistically significant moderate negative relationship between student absenteeism and academic achievement. This finding was also reported in several studies by Roby (2003); and Oghuvbu (2010) who reported finding that student absenteeism negatively influenced their academic achievement.

The impact of child labor on school achievement will yield more direct implications for child labor's longer term impacts on earning and poverty status later in the child's life. It is plausible that parents send their children to work in part because of poor academic performance. Child labor lowered student achievement in almost every developing country. Akabayashi and Psacharopoulos, (as cited in Han & Seiichi, 2006) used time-record data from a 1993 survey in the United Republic of Tanzania to investigate the relationship between child work and human capital development and they found that the factors that increased children's hours spent working also decreased their hours of study and those hours of work are negatively correlated with studying ability and school achievement.

CHAPTER 5

CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

This chapter aims to provide a summary of the major findings, conclusion and make recommendations based on the findings of the study. Finally some of the limitations of the study are described.

5.1 Summary of the Main Findings

The following major findings are summarized drawing from the data analysis and interpretation of the data. The results of this study determined the relationship between work and academic achievement.

- 1. The result revealed that there was a statistically significant difference in hours spent on work between the poor and non-poor students. It was also found that the family's economic situation required poor students to contribute to the family's working hours.
- 2. The result indicated that there was a statistically significant difference in the frequency of student absenteeism between the poor and non-poor students. It is clear that poor students were not only working more hours per day than their non-poor peers but also they were also absent from school more days. This finding stressed the negative impact of a child's work on their school attendance.
- 3. There was a statistically significant difference in academic achievement between poor and non-poor students. These findings reflected that children's work influenced their academic achievement.
- 4. A statistically significant relationship between hours spent on work and student academic achievement was found in this study. These findings argued that children's work influenced their academic achievement.

5. The existence of a significant relationship between student absenteeism and academic achievement. This finding was reported that student absenteeism negatively influenced their academic achievement.

Thus, it is quite obvious that the more hours a poor student work the lower the examination score they can achieve, and the more times they miss school the lower the score they achieve; the fewer hours the non-poor students worked the higher the score they achieved, and the fewer times the non-poor student was absent from school the higher score they achieved. Thus, the more hours spent on work and the higher the frequency of absenteeism the more negative the effect on their school achievement.

5.2 Conclusion of the Study

In conclusion, sending children to school has relatively high costs in the present.

Often parents have to pay for uniforms or books. More importantly though are the opportunity costs in the sense of income foregone and activities at home not performed.

The future benefits can be relatively large if formal education gives access to better paid jobs. This higher income in the future will better serve the children when they are adults and provide them with future resources, which can also be used to care for the parents when they are old. Even though parents value the importance of education, they might be constrained by the costs or poor educational infrastructure and feel forced to let their children involve in child labor.

Parent's level of occupation was found to be an important factor in determining the children's working activity in this study. If the father was employed in a vulnerable occupation, for example, as a day laborer or wage labor, it raises the strong probability that the child will work full time or need to combine work and study. Niels, Sudharshan and Sangeeta (2002) also confirmed the positive link between parent's level of education and the likelihood of a child only attending school, and similarly a negative link between

the parent's level of education and the likelihood of a child only working. Considering altruistic parents, the resource they inherit and labor earnings are spent either on household's consumption, on the cost of rearing children, or on transferring to children human capital. If a child is sent to school, s/he will be educated and can later on work as a skilled laborer and this human capital accumulation is an increasing function of schooling. In contrast, if a child engages only in the labor force and forfeits study, s/he will earn the lower and more uncertain income of an unskilled laborer, which has less earning potential in the future.

5.3 Recommendations

5.3.1 Recommendations for Implication

Low academic achievement negatively affects the opportunities the child will have in their working life and will possibly result in the child growing into an adult only able to earn a low income due to their poor skills. Their low academic marks in grade 12 will possibly result in them not being able study at TVET or university locking them into the cycle of low skilled and low paid work.

To be able to produce young people with the skills they need and that Cambodia needs to develop and grow, steps need to be put into place to reduce the numbers of children from working. Some of these might include government funded scholarships or fund package donation from relevant stakeholders such as their peers' parents, NGOs for students identified as poor. School strategy should set special classes for the poor students to learn in the time that do not impact on their working time (if they work in the morning, they can study in the afternoon for the whole year). Besides, it might include providing some training for their parents that would then equip the parents to earn higher income which in turn would reduce the need for the child to work.

To sum up, this research has highlighted the importance of helping parents understanding the impact on their child's academic achievement and the flow on impact on their future study and work options. This valuable information can be used by schools to encourage parents with aspirations for their child to minimize the hours working they require from their child allowing the child to have full attendance at school which will create enough time for their children to learn and achieve academically.

5.3.2 Recommendations for Further Research

This small quantitative study was limited by time availability of the participants and resources. The samples were from one high school in urban (Phnom Penh), and there were only 20% of all grade 12 students in the sample. Participants from other high schools in Phnom Penh and the provinces did not participate in the study.

In considering this study, a variety of additional unanswered questions arose that could be the impetus for further investigations. The followings are some suggested research ideas the researcher feels would be of value.

- Further research on the relationship between work and academic achievement should be conducted by making more accurate assessment of testing and hours spent on work with a large number of participants to confirm the results and to verify the weak points of this study. Studies should be extended to all grades in high schools and secondary schools in Phnom Penh.
- Additional research should also be conducted in rural schools in provinces to find
 out whether the results would be the same or not from urban and rural school
 districts throughout Cambodia to compare the findings with the present study.
- 3. Longitudinal and/or mixed-methodology approach could be conducted to provide a more detailed understanding of how work has impacted on academic achievement. Interviews should be utilized to check inaccuracies in data

collection using a survey. The strength of interviews is that the researcher can ask questions for clarification and the interviewees can provide rich detail explanations.

5.4 Limitations of the Study

This study examined the relationship between hours spent on work and academic achievement of one high school students whether working long hours and school absenteeism affected on students' school achievement or not. Although all research questions have been addressed, some weaknesses and limitations exist in this study. These are discussed in the following section.

- Inexperienced researcher: this study was the first experience of conducting
 independent research and consequently there were decisions made that might be
 made differently in future research. This is an obvious limitation of the study.
- 2. Questionnaire was possibly too hard for some students resulting in fatigue in which case not all responses might be true or accurate. There was an assumption that the students completing the questionnaire had the literacy skills needed to read and understand the directions or the actual questions.

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APPENDICES

APPENDIX A PILOT QUESTIONNAIRES

<u>Topic</u>: "The Relationship between Hours Spent on Work and Academic Achievement"

Part 1: Personal Data			
1. Gender: Male	☐ Female		
2. Age : □ less than 15	□ 15 - 18	□ more than 18	
3. Grade: □ grade 10	☐ grade 11	☐ grade 12	
4. Study supporter:	guardian	NGO	
Part 2: Parents' Backgrou	nd		
5. Parents' annual income			
□ less than \$ 50	□ \$ 50 - \$ 100	□ \$ 100 - \$ 200	
□ \$ 200 - \$ 300	□ more than \$ 300		
6. Parents' Education			
□ under grade 12 (Bac II)	☐ Grade 12 (Bac II)	☐ Association	
☐ Bacherler degree	☐ Master degree		
7. Father's occupation			
☐ official staff	□ private staff □	farmer	
own business	others		
8. Mother's occupation			
☐ official staff	□ private staff □	housewife	
own business	others		

Part 3: Personal Background

9. Do you work beside	de studying in school ?	
□Yes	□ No	
10. If your answer is	s yes, what kinds of work do you do?	
☐ do housework	☐ help parents in doing business	dothers
11. How many hour	rs in a day do you work ?	
□ 1 hour	$\square 2 - 3$ hours	$\square 3 - 4$ hours
\Box 4 – 5 hours	☐ more than 5 hours	
12. School attendand	ce: How many times are you absent in	Semester I ?
□ never	$\Box 1 - 2 \text{ times}$	$\square 3 - 4$ times
\Box 5 – 6 times	☐ more than 6 times	
13. School performa	ince: Score result in Semester I	
□ less than 50%	□ 50% - 65%	□ 65% - 80%
□ 80% - 90%	□ 90% - 100%	

Thanks for spending your worth time!

APPENDIX B

អរិតិទេសូមិន

គំខេសំនួរនេះគ្រូចបានរៀមចំសំរាច់គារស្រាចទ្រាចនៃប្រធានមន:

ិននាក់នំសខទោខម៉ោខធ្វើការសិខលន្លឥលសៃការសិក្សា មេស់សិស្សលៅខិន្យាល័យមួយក្ខុខគ្រុខភ្លំពេញៈ

"Relationship between Hours Spent on Work and Academic Achievement:

A Case Study of Students at one High School in Phnom Penh"

សូមជ្រើសរើសចំលើយដែលជា ការពិត និង ការយល់ឃើញរបស់អ្នក។ សូមអរគុណ!

ផ្លែងខ្លួច: ពង្គសានផ្លាស់ខ្លួនមេសសិស្ស					
១. ភេទ: 🛮 ប្រុស		🗆 ស្រី			
២. អាយុ: 🛭 តិចជាង ១	ផូស្នាំ	🗆 ១៥-១៨	ឆ្នាំ	🗆 លើស	ាី ១៨ឆ្នា <u>ំ</u>
៣. កំរិតសិក្សារបស់សិសុ	្∶ 🗆 ថ្នាក់	790	🗆 ថ្នាក់ទី១	99	🗆 ជ្នាក់ទី ១២
៤. អ្នកផ្គត់ផ្គង់ការសិក្សារ	បស់សិស្ស:	🗆 ឪពុកម្ដា	យ	🛘 អង្គការ	NGO
දෙනෙක්ක් සිපලක් සිත් සුව	មេសន្តប់ង	ణ్ణులు			
៥. ប្រាក់ចំណូលប្រចាំខែរ	បស់អាណា	ព្យាបាល			
🗆 តិចជាង ៥០ដុល្លា	□ å	ខែដុល្លា-១០	០ដុល្លា	□១០០ដុ	ល្លា-២០០ដុល្លា
🗆 ២០០ដុល្លា - ៣០០	ដុល្លា	🗆 លើសពី	៣០០ដុល្លា		
៦. កំរិតអប់រំរបស់ អាណា	ព្យាបាល				
🛘 ទាបជាងថ្នាក់ទី១២		ចប់ថ្នាក់ទី១l	ៗ	🗆 កំរិតប	វិញ្ញាបត្ររង
🗆 កំរិតបរិញ្ញាបត្រ		ថ្នាក់អនុបណ្ឌិ	ាត		
៧. មុខរបររបស់ឪពុក					
🗆 មន្ត្រីរាជការ	🗆 បុគ្គលិក	ក្រុមហ៊ុនឯក	ជែន	🗆 ផ្សេង:	1
៨. មុខរបររបស់ម្ដាយ					
🗆 មន្ត្រីរាជការ	🗆 បុគ្គលិក	ក្រុមហ៊ុនឯក	ជែន	🗆 ផ្សេង:	1

ផ្លែកនី៣: ទីទម្រទត្តិសទ្ទេមរបស់សិស្ប ៩. តើអ្នកមានពេល ជួយការងារឪពុកម្ដាយ ក្រៅពីរៀននៅក្នុងសាលា ដែររឺទេ? 🗆 គ្មាន □ មាន ១០. ប្រសិនបើចំលើយមាន, តើជាការងារប្រភេទអ្វី? 🛘 ជួយលក់ដូរឪពុកម្ដាយ 🛘 ការងារផ្ទះ 🗆 ផ្សេងៗ..... ១១. តើក្នុងមួយថ្ងៃ អ្នកធ្វើការចំនូន ប៉ុន្មានម៉ោង? 🗆 ១ម៉ោង 🛘 ២ម៉ោង-៣ម៉ោង 🛘 ៣ម៉ោង-៤ម៉ោង □ លើសពី ៥ម៉ោង 🛘 ៤ម៉ោង-៥ម៉ោង ១២. តើក្នុងឆមាសទី១ អ្នក អវត្តមាន(ឈប់) ចំនូន ប៉ុន្មានដង? 🗆 មិនដែលឈប់សោះ 🛘 ១ដង-២ដង 🛘 ៣ដង-៤ដង 🗆 លើសពី ៦ដង 🛘 ៥ដង-៦ដង ១៣. មធ្យមភាគ របស់អ្នក ប្រចាំឆមាសទី១ 🗆 តិចជាង ៥០% □ ៥0% - ៦៥% □ ៦៥% - ៨០%

សូមអរគុណចំពោះការចំណាយពេលដ៏មានតំលៃរបស់អ្នក។

□ 60% - 900%

□ ៨០% - ៩០%

APPENDIX C QUESTIONNAIRES

Topic: "The Relationship between Hours Spent on Work and Academic Achievement"

Part 1: Personal Data		
1. Gender : □ Male	☐ Female	
2. Age : □ less than 15	□ 15 - 18	☐ more than 18
3. Study supporter : □ g	uardian 🗆 NG	0
Part 2: Parents' Backgroun	d	
4. Family Condition		
□ extremely poor	□ poor	□ average
□ fair	□ rich	
5. Father's Education		
□ under grade 12 (Bac II)	☐ Grade 12 (Bac II)	☐ Association
☐ Bacherler degree	☐ Master degree	
6. Mother's Education		
□ under grade 12 (Bac II)	☐ Grade 12 (Bac II)	☐ Association
☐ Bacherler degree	☐ Master degree	
7. Father's Occupation		
☐ official staff	□ private staff	dothers
8. Mother's Occupation		
□ official staff	private staff	dothers

Part 3: Personal Background

9. Do you have time to help parents besides studying in school?				
□ Yes	□ No			
10. If your answer is yes, what kinds of work do you do?				
☐ do housework	☐ help parents in doing business	dothers		
11. How many hours do you work for a day? Write your answer down:				

Thanks for spending your worth time!

APPENDIX D

អរុមខសំនូរ

"Relationship between Hours Spent on Work and Academic Achievement"

"A case study of students at one high school in Phnom Penh"

សូមជ្រើសរើសចំលើយដែលជា ការពិត និង ការយល់ឃើញរបស់អ្នក។ សូមអរគុណ!

្តែងខ្លួក: បង្កសម្ <mark>តិ</mark> វត្ត	೮ ಕುಕಿಕ್ಕು				
១. ភេទ: 🛭 ប្រុស	១. ភេទ: 🗆 ប្រុស		□ ស្រី		
២.អាយុ : 🛭 តិចជាង ១	ផូស្នាំ	🗆 ១៥-១៨ឆ្នាំ	□ លើត	បពី ១៨ឆ្នាំ	
៣. អ្នកផ្គត់ផ្គង់ការសិក្សារប	រស់សិស្ស :	🗆 ឪពុកម្ដាយ	🛮 អង្គិក	រារ NGO	
តែ ខេត្តមន្ត្រីខេត្តមន្ត្រីមាន	មេសន្លប់ងសិ	165			
៤. កំរិតជីវភាពរបស់គ្រួសា	11				
🗆 ក្រណាស់	□ ĵĵ	🗆 មធ្យម	🗆 បង្គ្លូរ	🗆 មាន	
៥. កំរិតអប់រំរបស់ ឪពុក			_		
🛘 ទាបជាងថ្នាក់ទី១២	🗆 ចូរ	រ់ ថ្នាក់ទី១ ២	🗆 កំរិត	បរិញ្ញាបត្ររង	
🗆 កំរិតបរិញ្ញាបត្រ	🗆 ថ្នា	ក់អនុបណ្ឌិត			
៦. កំរិតអប់រំរបស់ ម្ដាយ					
🗆 ទាបជាងថ្នាក់ទី១២	🗆 ច	ប់ថ្នាក់ទី១២	🗆 កំរិត	បរិញ្ញាបត្ររង	
🗆 កំរិតបរិញ្ញាបត្រ	🗆 ថ្នា	ក់អនុបណ្ឌិត			
៧. មុខរបររបស់ឪពុក					
🗆 មន្ត្រីរាជការ	🗆 បុគ្គលិកក្រុ	មេហ៊ុនឯកជន	🗆 ផ្សេងៗ		

៨. មុខរបររបស់ម្ដាយ				
🗆 មន្ត្រីរាជការ	🛘 បុគ្គលិកក្រុមហ៊ុនឯកជន	🗆 ផ្សេងៗ		
ផ្លែកធី៣: បីទម្រទត្តិសច្ចេមរបស់សិស្ស				
៩. តើអ្នកមានពេល ជូ	យការងារឪពុកម្ដាយ ក្រៅពីរៀននៅ	ក្នុងសាលា ដែររឺទេ?		
🗆 មាន	🗆 គ្មាន			
១០. ប្រសិនបើចំលើយ	មាន, តើជាការងារប្រភេទអ្វី?			
🗆 ការងារផ្ទះ	🛘 ជួយលក់ដូរឪពុកម្ដាយ	🗆 ផ្សេងៗ		
១១. តើក្នុងមួយថ្ងៃ អ្នកធ្វើការចំនូន ប៉ុន្មានម៉ោង? សូមសរសេរចំលើយខាងក្រោម :				

សូមអរគុណចំពោះការចំណាយពេលដ៏មានតំលៃរបស់អ្នក។

APPENDIX E A SMALL PIECE OF PAPER

Name:	Class:	Phone number:
Name:	Class:	Phone number:
Name:	Class:	Phone number: