博士論文

Procuring Better Employment and Income in Tourist Industry, Siem Reap, Cambodia: The Role of English Communication Ability

2014 年度

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Abstract

During the history of both developed and developing countries, one of the most important undertakings for policy makers, governments, and economists has been the creation of employment and income on both the large and small scale. Accordingly, hundreds of both empirical and theoretical research studies have been completed to combat the dilemma of global employment and income. A major shortcoming however is that research on the role of English in procuring better employment and income has been lacking. The author conducted a continuous study of 4 surveys over 5 years to examine the question of English communication ability in tourist industry employment and income. To this end, the goals of this study are: 1) to verify the role of English in procuring better employment and income in the tourist industry of Siem Reap, Cambodia; and 2) to integrate the field of English education into the field of development economics. Chapter 1 offers the research background and also reviews related literature. Chapter 2 examines the socioeconomic background of Cambodia and Siem Reap. Chapter 3 contains the study on procuring better employment and income in tourist industry, Siem Reap, Cambodia: the role of English communication ability. Chapter 4 offers the main findings of the study, explains the main contributions of the study, and gives policy suggestions derived from the survey situation.

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Introduction

Researchers have examined the question of what variables are at play to increase income in any population. Moreover, many experts have begun exploring the question of income increase in the developing world. In this area, many aspects have been viewed thus far including age, years of schooling, gender, living situation, parents' education, and the like. Since the 1970's, researchers have examined earnings among immigrants into developed nations such as the United States to determining what might drive income. In the 1970's and 1980's, economic research began on the relationship between education and income (Becker, 1964; Mincer, 1974). Bleakly and Chin (2003) investigated language skills and earning of childhood immigrants into the United States. Some research (Casale and Posel, 2010) has focused on English ability and earnings where the language of business and politics is not the indigenous language. In this case, the research is focused on South Africa. Other researchers (Yoneoka, 2009) have examined the role of English language in tourism in the Far East.

Very little research has been undertaken in the direction of economic gain from the human capital acquisitions in intercultural communication, more specifically language communication, with respect to income and employment. Nor has much empirical research been completed on income, employment, and language proficiency in developing countries, and fewer, to the author's knowledge, have examined these facets within the tourist industry in developing countries specifically. The author's research hypothesis was that since tourists visit a destination yearly, then with adequate communication training, employees could procure employment and also receive higher salaries with communication proficiency. With research data into this area lacking, the author's goal was to examine employment and income in the tourist industry (TI) of a developing country. The objective of this thesis is twofold. Firstly, this study attempts to verify the effect of English communication ability on employment and income. Secondly, it also tries to integrate the field of English education into development economics.

In order to substantiate the author's research goals, literature in 3 areas will be reviewed in this thesis. Those areas are: 1) the economic impact of TI, 2) literature related to investments in education and English education, and 3) literature related to English proficiency and earnings. As for research into the economic impact of tourism, a study by Ennew (2003), and information from the WTTC (2014) will be offered. Because background education and English education is paramount to this study, research by Becker (1964) and Mincer (1974) will be included. Finally, to strengthen the author's goal in language proficiency and earnings, research by Bleakley and Chin (2003), Casale and Posel (2010), and Sandford (2002) and will be reviewed.

The author's goal was to create 4 questionnaires over 5 years to administer to employees to gather data regarding total years of schooling, total years of English education, and expenditure for English study. The author then chose Siem Reap as the continuous survey locale due to its proximity to Angkor Wat and the fact that it is a typical cultural tourist destination, much like the Pyramids of Egypt, the Great Wall of China, or Luang Prabang in Laos, and as such, it can be easily compared and contrasted with other typical

cultural tourist sites. Any language could be researched as a variable; however, since the author's background is in English language education, English was chosen as the language used in research. Since the author's goal was to examine background educational, life, and socioeconomic variables statistically, questionnaires were designed with this aim in mind. Early on, a question arose as to how to determine English proficiency. Because of this, the author designed an English language assessment system loosely based on the Common European Framework of References for Languages (CEFR), which can be used with any language. This system allowed the author to obtain English language proficiency assessment numerically to be calculated with statistical measures to determine correlations.

The method of research was to create the questionnaires, then to calculate sample sizes based on total number of businesses rather than population for all 4 surveys. The Angkor University Research Center for Economic Development (AURCED) provided much background information for the Siem Reap area. They also helped in hiring six advanced-level English students from Angkor University to act as assistants during the survey experience. The assistants were provided with hand-held IC recorders on which to record respondents' self-introductions; the self-introductions were then assessed after the interviews to obtain English language proficiency. After the interviews, the data in each of 4 surveys were calculated using certain variables and statistical measures to determine correlations.

The thesis is structured thusly: chapter 1 contains the research background and review of related literature. Chapter 2 offers general background of Cambodia including Siem Reap. It also offers the author's idea on 3 factors that assisted in the economic recovery of Cambodia after Pol Pot, and examines the history of English education in Cambodia. Chapter 3 offers the study on the employment and income in TI using the role of English proficiency. Chapter 4 contains the main findings of the study, and offers policy suggestions.

Chapter 1. Research Background and Review of Related Literature

Introduction

Important to any research work is the relevant background. This is necessary to explain any background elements the reader must know to grasp the full impact of the research work. The next section contains information on the communication process, gives information on second languages, and examines the author's English proficiency assessment system, which was administered during the surveys in Siem Reap to obtain accurate English language proficiency levels. To link the author's research to the existing studies, the author will then offer reviews of literature related to education, employment and income; as well as literature related to English language proficiency, employment, and income.

1.1 Research Background

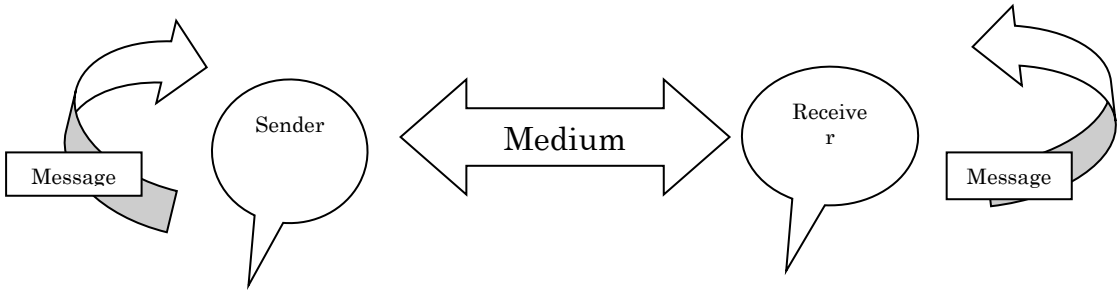
When the author visited Cambodia in 2000, it was obvious that TI employees could not speak English well, nor did they have training or experience in hospitality management. This is one reason the author decided to do research in English ability, employment, and income in the TI of Siem Reap City. The objective became an examination of the role of English ability on employment and income Siem Reap TI through economic analysis of an empirical study, which was designed by the author. This endeavor was difficult for several reasons. First, Cambodia was long an isolated country and closed to Western influence. As a result, researchers had obstacles in gaining access in order to complete survey work. Secondly, the language barrier in Cambodia makes communication difficult; many people can speak English, but it is not the norm, nor is it the language of business or politics. This means that researchers must have access to Cambodians with English and translation abilities. One more reason SR was chosen was the events of Pol Pot in Cambodia from 1975-79. Although horrific, the situation has made this country unique in that during this genocide, thousands of intellectuals including academics, doctors, teachers and even students were executed. This meant that younger population did not have adequate role models from which to learn basic aspects such as infrastructure development. In addition, libraries, hospitals, and academic institutions were burned. Economic, social, and educational data were also destroyed, leaving the country in chaos. These conditions meant that much vital information and important socioeconomic, educational, and individual data is now missing, and this has had a largely negative effect on the people and society.[1] After this experience, the multitude of new visitors led to growth of TI in Siem Reap. The author's research and following analysis will take the stance that, since many international tourists visit Siem Reap from all around the world annually, the tourism labor force needs to have strong intercultural communication skills, English language proficiency and other interpersonal skills, such as cultural

[1] A further discussion of Pol Pot and the genocide by the Khmer Rouge can be found in Chapter 2.

and human knowledge, to attract would-be tourists and to accommodate them efficiently. Since there is an incredible lack of individual socioeconomic data in Siem Reap, especially on the role of English and education in employment, the author has set out to gather socioeconomic, general education, and English education background data of individual tourist industry TI employees in SR, and to examine returns to investments in English education to elevate English communication ability. During the process, the author collected important individual data, much of which has not been collected before. English background, along with various other aspects such as on-the-job training and other learned skills, should contribute to returns on investments if treated as a form of education. The author has found through survey work that employees with higher overall education, longer years of general schooling, longer years of English study (both in school and on one's own), and spending more money to achieve better English proficiency, all have higher paying jobs in the TI of SR. It is impossible to say that English alone contributed to the higher incomes and returns. There are many other factors that contribute to higher incomes and employment such as ambition, drive, incentive, ability, and other personal attributes. However, individuals with English ability have better overall income and employment experiences according to survey results. These experiences include ease of finding jobs, ability to keep jobs, better lifestyles, better conditions overall, better sense of community contribution, and better sense of their own employment.

Communication[2] itself is an uncomplicated process in which two bodies transmit information, and includes a sender, a medium, and a message (Fig. 1.1).

Figure 1.1 The Cycle of Communication



Source: Adapted by author from Reisinger, 2009.

Intercultural communication thereby refers to this same process although among different cultures. Within intercultural and international settings, communication entails different aspects, and through communication within and among different cultures, many difficulties may arise, such as incorrect word usage and unintelligible body language. With education, training, and experience, these problems can be alleviated, leading to satisfying and interesting experiences (Reisinger, 2009) for all involved in the communication process, especially in TI as it is a profession in which

[2] Let the definition of communication for this paper be "face to face speaking using language."

intercultural communication is used on a continual basis, both in developed and developing countries worldwide. As a result, TI is extremely important for increasing any nation's GDP, not to mention creating millions of jobs yearly. As mentioned above, communication itself is the process entailing a sender, a receiver and a message, and usually means verbal communication. When one mentions intercultural communication, one means mainly language, although communication can range from speaking, to radio, TV, Internet, print, etc. Those working in tourism must have knowledge of intercultural communication, and all its facets: gestures, language, and symbols. TI and all hospitality related jobs are primarily comprised of endless face-to-face interactions with tourists, and as such intercultural communication becomes necessary. Intercultural communication entails not only talking, but is also a process whereby people can understand a shared meaning in symbols, body language, certain cultural codes, and language and behavior in context. If two people are "of the same mind," or "on the same wavelength," they can have an experience of "maximum satisfaction" through a shared language, understanding of body language, and knowledge of cultural clues.[3] Reisinger et al. (2004) proposes that a new concept of intercultural communication should be the acknowledgement of cultural values, and that the focus should be on effective communication rather than just idle talk, showing the necessity of effective second language and intercultural communication proficiency in the tourism process.[4] Hand in hand with intercultural communication is second language proficiency. A second language can be defined as a language people share which is not the mother tongue (the language one learns upon growing up), usually another language with which people have knowledge, and also defined as a *lingua franca.* (Chirikba, 2008).[5] Many examples of lingua franca exist today; the most widespread second language is English. Other historical examples of lingua franca are Spanish in South America, and Latin in the European colonies. Arabic has become the lingua franca of choice in the UAE (United Arab Emirates) since the 7th century due to the enormity of the Arab population at that time. Of course, English is perhaps the most widely used second language, and can even now be considered a world language. English has become a world language most likely stemming from the British imperialism, which existed in the 19th century throughout much of Asia. Although some countries rebut this notion because of the feeling of imperialism, it nevertheless has taken root in modern societies as a lingua franca in politics or business. In addition, the official language of air traffic control is English. Kachru (1985) has categorized the use of English internationally in three areas: *inner circle countries,* which use the language daily as a mother tongue, and include the United States, England, Canada, Australia, New Zealand, South Africa, and

[3] See Reisinger, 2009, for a detailed discussion of *intercultural communication.* The term, "maximum satisfaction" was coined by Maung Maung Lwin 2010.

[4] See *International Tourism: Cultures and Behavior* for further discussion (Reisinger, 2009).

[5] See "The problem of the Caucasian Sprachbund" Viacheslav A. Chirikba in Pieter Muysken, ed., *From Linguistic Areas to Areal Linguistics*, 2008, p. 31 for further discussion.

Caribbean nations; *outer circle countries* use English as the language of politics or business regularly and has cultural significance. Examples of outer circle countries include: India, Pakistan, Philippines, Singapore, Bangladesh, and Tanzania. The third category is defined as *expanding circle countries*, which also use English as a language of business or as a lingua franca and includes much of the rest of the world, and includes countries such as China, Japan, and the European nations.

Why English is the international language and whether it should be is considered a complex and difficult topic, filled with debate. However, to this date it has become so, due to the large population familiar with, and adept in, speaking and writing it. Perhaps it can be said that English is easier to learn than other languages because it lacks certain native language requirement criteria that other languages possess: gender specific nominal forms (such as the gender endings in French and Spanish); complex verb conjugations as in French or Spanish; complex ideographic writing systems such as Chinese, Japanese, or Arabic. The word order in English is fairly consistent, the spelling is not incredibly complex, and the pronunciation can be loosely based. Of late, the term *world Englis*h has been coined to contain English that is accented from the speakers' first language, but is grammatically consistent. Researchers (Richards, 2011) have the viewpoint now that native-like English is not necessarily the best goal for lingua franca speakers to strive towards, but that grammatically sound, accented English proficiency is perfectly acceptable. It certainly cannot be stated with any certainty that a language is easy; any second language is difficult to learn when the target language contains features which are not in the first language repertoire, such as in a Japanese speaker learning English, an English speaker learning Japanese. Another factor that makes learning a second language difficult is the *critical period hypothesis* (Lenneberg, 1967), which states that there is cut-off period (usually associated with puberty) after which learning a second language is difficult or impossible. In bilingualism this period is determined to be around 6 or 7 years of age; in second language acquisition it is determine to be roughly around 12 or 13. The critical period hypothesis reports that beyond this age, learning a second language is difficult, because of the loss of brain elasticity (Penfield and Roberts, 1959). The critical period is widely accepted, but also widely debated; many researchers currently think that with training it is possible to learn a second language well, and that motivation and identity (Moyer, 1999) play a more important role in second language acquisition than does the critical period. Nonetheless, learning a second language can be difficult, but it is possible to speak adequately well in a second language with practice and training. Just by virtue of the fact that millions speak English as a second language or language of business yearly makes it easy to see that it may be easier to grasp than other languages.

In order to know exactly how language speakers use English, and what their abilities are, language assessment testing must be carried out. As mentioned in the introduction, data collection for analysis from survey work is completed on a broad scale and uses census data in many cases. Census data can be used adequately in many cases for topics such as: length of time in the particular country; average monthly expenditure average income; number of children; age, gender, etc. These data can all

be quantified for use in statistical analysis, such as calculation of the means, variance, covariance, and to perform correlation tests. English proficiency data is collected using census data in most cases, allowing the researcher to gather large amounts of data saving money and time. However, the English proficiency is often self-reported which can lead the respondent to over or undervalue his or her own ability. The US Census (2000) uses English proficiency questions on a four point scale self-rating scale of those who can use English: *1) very well; and 2) well; 3) not well; and 4) not at all*; the levels are further broken down into: *speak English at home; and speak a language other than English at home.* (U.S. Census Bureau, 2000). Because of the subjective nature of the English assessment, it is the author's belief that this type of data collection does not gather accurate evidence of a true English proficiency level. Accuracy in measuring language proficiency is important in order to correlate it with length of time in a given country, in a particular employment situation, or at a specific income level. This four-point scale system is not adequate for appropriately measuring English proficiency. As Glimpse notes,

> "English language proficiency is a cornerstone of communication, business, and the economy. Data on English language proficiency equip us to better understand 'where we are' and help enable us to develop plans to identify problems areas and improve on English language proficiency. Much of the challenge, and opportunity, to make improvements lies within the realm of K-12 schools and school systems….But, decennial census (Census, 2000) data do not tell us about English language proficiency (ELP) for those who speak only English. In addition, census data are respondent-based. Data about language proficiency is in the view of the respondent." (Glimpse, 2012).[6]

Of course, the author understands that this information is based in the United States, and therefore is America-specific with regards to English language proficiency, within the U.S. However, other census data, such as that found in Casale and Posel (2010), and Chiswick (1995) use other census and similar large-scale data for English proficiency; most English proficiency is measured using the common four-point, self-reporting scale. The author believes that if one measures language proficiency in any context and any country, it must be done so in a standardized fashion. Time and monetary constraints make this difficult, but a newly fashioned system, utilizing a website on the Internet for example, may be able to eventually alleviate this burden. Measuring second language proficiency in any person is a difficult and sometimes controversial topic. However, second language proficiency and *communicative competence* (Hymes, 1966) is especially important in order to avoid

[6] This information is by Warren Glimpse, founder of Proximity, a group that helps organizations, such as Federal and state governmental, university, and other associations use strategic data to assist in decision making. Glimpse is econometrician and former US Census Bureau official. Further information on English proficiency, language use at home, and language proficiency assessment in census data can be found on proximityone.com website.

communication blunders that could lead to embarrassing, difficult, or incomplete experiences (Reisinger, 2009). It is also important in employment situations where those who work closely around particular language speakers must be proficient in that language. In developed countries, where there is ample funding to translate information into the mother tongue, or to hire interpreters, second language proficiency may not be a significant issue. However, in developing countries it may not be feasible to simply translate or interpret due to lack of adequate financing vehicles. As can be agreed, language proficiency is a complex and debatable topic. The method of choice for determining English language, and other language, proficiency has been using self-reported data on censuses or other large-scale surveys. In conversations with linguists, the author has determined that it is worthwhile for a speaker to be able to judge his or her own language ability, although to measure language proficiency accurately requires a more quantifiable approach. In 2010, 2012, and 2013 during the author's survey in Siem Reap, Cambodia, a more concrete, quantifiable method of measuring English proficiency was administered. This design was loosely based on the Council of European Framework of References for Languages measurement system. The CEFR system is proposed by the Council of Europe to determine EU citizen's language proficiency, widely employed in the EU, and is now being used in other countries such as the Philippines and Vietnam. The system judges respondents on a six-level scale of low-beginner to advanced levels, and is applicable to any language. The CEFR encapsulates various kinds of knowledge: linguistic, sociolinguistic, pragmatic, and contains six reference levels for application to any language. The author emulated these features but also simplified the scale on a 0 (no ability) to 5 (advanced ability) to be useful in the context of Cambodia where many people cannot speak English at all. This system builds upon the CEFR by creating the levels more appropriate for the Cambodia. For example, very few reach the way-stage or threshold levels as depicted in the CEFR. For this reason the author chose only simple classification for those in Cambodia. An additional change in the author's system is that the English ability levels can be quantified, and therefore can be tested numerically. These tables show the levels of the CEFR (Table 1.1) and the author's variation (Table 1.2):[7]

Table 1.1 CEFR Reference Levels

A1	Breakthrough or beginner - can understand familiar everyday expressions, can introduce self
A2	Way-stage or elementary - can understand and use expressions within immediate relevance
B1	Threshold or pre-intermediate - can understand main points and deal with traveling
B2	Vantage or intermediate - can understand and produce ideas on concrete and abstract topics
C1	Effective operational proficiency - can get implicit meaning, can use language flexibly
C2	Mastery or advanced - can understand everything, can express spontaneously and fluently

Source: Council of Europe for Language Education, 2001.

[7] Some material in this paragraph was previously published in Morrow (2014), page 119.

Table 1.2 The Author's Variation of English Ability Assessment

0	No or little ability - can't communicate at all
1	Low Beginner - can only understand and use familiar everyday expressions
2	High Beginner - can understand and use expressions within everyday relevance
3	Low Intermediate - can understand many things, can produce but with many mistakes
4	High Intermediate - can understand and produce ideas but with lower confidence
5	Advanced - can understand everything and produce fluently and confidently

Source: Morrow, 2010.

1.2 Review of Related Literature[8]

In order to verify the importance and to show the viability of a study linking English ability with employment and income the author will introduce several documents that are related to this study. These include: tourist industry and economic growth; human capital; schooling, experience and earning; income and employment with English proficiency in Africa; language skills and earnings of childhood immigrants to the U.S.; and English proficiency and income in Mexican immigrants to the U.S. The first study is related to TI and economic growth. The next 2 documents are based on human capital and its contributions to per capita GDP income; the following documents are related to English proficiency and earnings.

1.2.1 Review of Literature Related to Tourism and Economic Growth

Ennew (2003) considers the way in which individual countries benefit economically from tourism. Tourism expenditure basically provides three main positive effects: 1) direct effects, which are contributions from tourist expenditure and is immediate income for TI business; 2) indirect effects, which, as the expenditure is received by the business is re-spent for daily upkeep of business through purchases necessary items; and 3) induced effects, which are contributions spent by businesses and governments, and household consumption, such as taxes and the like. In a sense, GDP contributions are multiplied through the economy, and the effects throughout the economy can be considered. Ennew states that there are many social factors as well as economic ones that stimulate economic growth, particularly in countries that do not have many natural resources, such as Jordan, Ireland, the Caribbean, and Egypt. Cambodia has seen a high influx of TI activity, and perhaps TI will continue to be important for future economic growth there. TI also has a positive effect on development overall, especially regional development, which help regions of a country that do not have major urban centers or various attractions to offer tourists. Although Cambodia has Phnom Penh, Sihanoukville, and Siem Reap, these areas are not as bustling as some other major urban locations. Ennew has found also, that TI encourages local entrepreneurs and small businesses within areas that do not have access to larger labor markets, such as Siem Reap. According to Ennew (2003), such activity ranges from tour guide services to new attractions to production of local handicrafts.

[8] Some material in this section was previously published in Morrow (2014), pages 111-117.

As the previous paragraph shows, TI contributes to GDP in many ways. However, the assessment of the economic impacts to TI is difficult to measure, especially in developing countries. One method of assessment is the Tourism Satellite Account (TSA) for determining TI contributions to GDP, which is used extensively by the World Travel and Tourism Council (WTTC). The WTTC publishes reports annually. This fact is already widely known but, TI accounts for $US millions in contributions yearly in addition to creating thousands of new jobs in TI and TI offshoot businesses. A TSA is found by using national account information in calculations with the production of particular products by particular industries. Then it observes and the finances necessary for production. Tourism economic analyses often use input output tables. Input/output analysis draws on data in a particular industry for understanding the relationship between suppliers and producers (beverages and food, hotel accommodations, and the like) and their economic impact to meet consumer demand. The difference between the value of the outputs (capital and goods produced) by an industry and the inputs (capital and goods needed) that it uses can be examined; the impact of demand can be estimated using the input output table. For example, the increased activity in hotel accommodation or restaurant demand can be traced and calculated to check increased demand for the inputs these industries use to meet such demand (this includes labor and goods). It is included in this paper to exemplify that tourist demand for goods and services is especially high in souvenir shop, restaurant, guesthouse, and hotel businesses in SR, and therefore, both supply of goods as well as a trained labor force must accommodate tourist demand efficiently in SR TI. Accordingly, tourists' spending in various aspects can be tracked and studied at length.

Using TSA's, the WTTC reported that total direct contribution to GDP in Cambodia in 2013 was KHR 6,509.7 bn (10.4% of GDP) (WTTC, 2014). This figure was forecast to rise by 10.2% during 2014, and primarily represents TI related businesses such as hotels, restaurants, travel agencies, and passenger transportation. It is expected to rise by 6.2% or KHR 13,927.4 bn by 2024. As for employment, TI generated 735,000 jobs in 2013 (8.9% of total employment) and was forecast to grow to 784,000 during 2014.

1.2.2 Review of Related Literature to Education, Employment, and Income

The author chose the following work as important background because their work is from 30 years ago, and the economic situation 30 years ago in the U.S. is almost identical to the wage situation in Cambodia presently. Gary Becker (1964), noted University of Chicago economist and Nobel Prize Laureate in economics, completed monumental work and conducted empirical research in an economic and social field known as human capital. Human capital is the education, skills, training, and knowledge one has developed over one's life, and is very much like other more investments into a company's stock of equipment or machinery. Becker has done much research on the economic impact of education and other human capital on employment, and has investigated the role of age, training, and education on income. He specifically investigated the role of age, training, and education on

monetary returns to investment. In research, Becker first wished to determine the rate of return to human capital attainments in education, but soon shifted towards creating a more unified theory of economics where all investments, such as on-the-job training and other knowledge, were taken into account. He noted that many economists were surprised that they could not account for the high levels of income they found in data. For example, age and years of education were two facets that could explain the income level of a particular person. It was found, however, that sometimes these facets could not explain employment and income levels entirely. Hence, some hidden aspect was at work influencing income levels, and Becker characterized this hidden aspect as human capital.

Mincer (1974) has further researched what drives income through an examination of the influence of years of schooling as a type of human capital. The relationship between schooling, followed by employment and income earnings during one's life differ among individuals as do time investment in training, knowledge, and skills; Becker focused on human capital and Mincer focused on schooling. What can also be found is that long-term income shifts and time spent in schooling or unemployment made individual earnings incredibly difficult to compare. Correlations between education and income throughout an entire working life can be negative; this is a fact that has been seen by economists for many years. This is also the case in developing countries such as Cambodia, a fact that was documented by the author during research in 2008-2013. Mincer (1974) examined schooling as the simplest form of human capital, building upon the human capital foundation by Becker. He then expanded the model to encapsulate various schooling groups and examined how these groups differed in earnings. He accomplished this by relating life income to human capital investments after the initial schooling process; his objective was to understand the observed income distributions of accumulated investments in human capital for sets of employees. Outcomes of the distribution of personal income within the various age-education groups resulted; however, one problem was the sheer lack of background data regarding an individual's investment in human capital. The total investment stock in human capital do not equal the total capital stock because some investments, such as those made in the home for example, are excluded from the individual's net stock, and are therefore hidden as Becker discovered. Mincer was able nonetheless to receive important insights into the analysis of income distribution and individual earnings. In research, Mincer used one's working life incomes to investigate the role of education after schooling from ages 15 to 64. Similarly, in Cambodia, many people have trouble finding work and are often unemployed, making the data collection and analysis doubly challenging. For this reason, we examined present situation only, and estimated returns to investments in human capital on the short term. Nonetheless, the author has made an attempt at being perhaps one of the first ones to capture data regarding income and English education and proficiency. English education and proficiency are essentially one in the same; one's proficiency in English comes from some kind of English education. In a sense, all hours of, years of, amount of money spent on, lead one to becoming proficient in English. It is with this fundamental thought that the author approaches the study.

Mincer's schooling model is essentially as follows:

$$In\ Y_s = In\ Y_0 + rs$$

Where, InY_s refers to the present income with *s* number of school years; InY_0 to income with 0 years of schooling or experience; *r* to rate of return with one additional school year; and *s* to the total number of school years. This model basically infers that the present value of an individual's income with s years of schooling (InY_s) where one does not invest in human capital after s school years, is equal to someone with no years of schooling or experience (InY_0) plus the rate of return on investments to education together with one additional year of schooling *(r)*, multiplied by the total years of schooling *(s)*. After analysis, Mincer found 3 main points: 1) people with more schooling have higher annual incomes, 2) as the rate of return on investments in schooling get higher, the difference between individual earnings due to differences in investment in schooling is larger, and 3) this difference is larger if the working life is shorter since the cost of education must be regained over a shorter period. These are perhaps obvious; however, Mincer made inroads by including empirical proof. In fact, in quantitative analysis Mincer has examined income distributions at length. Human capital attainments have been researched to examine and explain individual differences in income in subjects with different schooling ages in many regions and countries. As of Mincer writing his book, the only way to examine income differences and investments in human capital were limited to those related to schooling. Using Mincer's schooling model, in simple regressions of income of working men ages 25-64, Chiswick (1967) found coefficient of determination (R^2) values between 10 and 20% within U.S. regions using 1959 census data. These levels are quite low, and in regressions using the same regressions in white, non-farm working, and those who were not students were found to have coefficients of determination to be even less at 7%. This may have been because the model does not fit the data 100%, but the results were still positive. The schooling model did not account for human capital attainments post-schooling, nor those learned at home. Mincer also examined earnings of individuals using grouped data sets of years of schooling. Here he found that at median age 52, an individual with only 4 years of education earned US \$2,520[9] in the 10th year of experience. On the other hand, an individual with 17 or more years of experience at median age 37 earned US \$10,200 in the 10th year of experience, US \$7,680 more than the individual with only 4 years of education. Obviously, this is significant, and shows schooling does make a difference. Regression analysis using ungrouped data, which gives the ability to examine individual's background rather than the group of schooling years, showed similar characteristics, and the R^2 values were still not as high as preferred in regression analysis at 0.26 to 0.33. The standard deviations in these data were low, which signifies the data was close to the central line, but variance in years of schooling was quite high at around 7.9 in all regressions. Mincer wrote that the high variance and unequal distribution in schooling data is due to several factors and cannot be fully explained by differences in schooling years only. Factors of

[9] In 1960 \$U.S.

unequal schooling years and earnings were: 1) the distributions of schooling investments was only partially measured by the distribution of schooling years; 2) because of lack of data, individuals were placed in average school departure age groups in which there is much dispersion; and 3) true variation was found to be overstated due to the differing returns even among individuals with the same amount of schooling and experience.

In an extension of this research, Mincer found that experience is more important than age in influencing income levels, especially at younger ages, due to the fluctuations of markets, elements of chance, psychological behavior, and the like. Mincer examined income individuals at a given level of education, and then separated them into different education groups to examine average incomes with experience. Finally, he considered individual differences in those with the same amount of schooling. Results of this analysis show that those with low levels of experience earn less income regardless of age, and found those with more experience earn higher incomes. Interestingly, Mincer found that economists with years of experience resulted in an R^2 of 41%. In addition, those with years of age resulted in R^2 value of 23%. Scientists exhibited an R^2 value of 34% when examined with years of experience, and an R^2 value of 24% with age included. Clearly, in such fields education is important, but this also implies that experience is probably the most important factor in income returns to investments in human capital. One problem Mincer had at that time was the lack of information as to an individual's investment in human capital. In addition, long-term income shifts and time spent in schooling or unemployment made individual earnings difficult to compare. As Becker (1964) noted, the accumulations in human capital do not equal the total capital stock because some investments, such as those made in the home for example, are excluded from the individual's net stock, and are therefore hidden. Nevertheless, Mincer was able to receive some insight into the analysis of income distribution and individual earnings.

Since human capital entails those things intangible, and encapsulates the inner knowledge one has attained, then the author argues that English communication ability, as any language proficiency, is also one facet of human capital, as it is entails intangible skills such as grammatical structure, pronunciation fluency, and interpersonal communication. Of course, language is both a tool and a skill, and is used by millions, especially in the tourism industry, in such things as hotel check in, dining at restaurants, and sightseeing. It is used for communicative purposes and allows travelers to have all-around pleasurable experiences from their trips. Therefore, language skill is necessary for those employees working in the tourism industry. Without ample language skill, many employees will find themselves in lower paying jobs, sometimes jobless, and will have lower incomes. This chapter argues that English is needed by people ranging from retail shop staff, restaurant wait staff, guesthouse and hotel front desk clerks, to taxi drivers, airline attendants, souvenir shop employees, and shop owners. Because of the value of language as a skill, it is a very important part of human capital, and is something therefore, that is worthy of investigation.

To this end, as the theoretical basis for this study, the author wished to build on Becker's human capital work by examining hidden facets that are at play in returns to income; and also Mincer's work with English proficiency as similar to schooling in human capital by addressing 2 things: 1) the socio-economic life of tourist industry staff in the developing country of Cambodia, and 2) a simple statistical analysis of English education and ability to generate employment and income in Cambodia's TI. To satisfy this goal, the author incorporated several elements related to English education and proficiency into the Mincer schooling equation, such as total years of English education in school, hours of English education in school, amount of money spent on learning English monthly, which can be denoted as variables directly related to income. Those indirectly related to income are: frequency of English speaker visits to the establishment, usage of English in days per month, English ability on a scale from no ability (0) to advanced ability (5). These would be tested using data collected by the author during survey work in Cambodia during 5 years. The author changed this situation slightly because in developing countries, many employees do not finish high school, and many do not attend in the first place, making a comparison using schooling alone impossible. However, those working in tourist industry have good commands of English, whether learned in school or by oneself. This being the case, it is worth using schooling data as much as possible, but also by introducing the variable of English education into this fundamental idea.

1.2.3 Review of Literature Related to English Language Proficiency, Employment, and Income

In *English Language Proficiency and Earnings in a Developing Country: the Case of South Africa*, Casale and Posel (2010) investigated the role of English in a country where the dominant language of business is English. In their research they found that high returns to English language proficiency exist, and that there was a large advantage to reading and writing English *very well*. Casale and Posel used data on those who use English at home and general English language proficiency to determine the relationship on English proficiency and earnings in African men. The data used for Casale's research was based on the National Income Dynamics Survey (NIDS), which tracked 28,000 individuals in approximately 7,300 households nationwide. NIDS gathers information on English language in self-reporting on a four point scale of *very well, fair, not well,* and *not at all* (Casale and Posel 2010). Casale chose a narrow definition of proficiency for their data examination, focusing on the ability to read and write the English language *very well*. Casale and Posel tested the relationship between earnings and English proficiency among African men between ages 25 and 65. Statistical results showed that individuals with a completed secondary education earned 120% more than those without any schooling. Proficient English language users earned almost 55% higher than non-proficient English users. The implications are that English language proficiency can elevate job productivity and also lead to more effective communication among co-workers and management. In the end, a high premium to English language proficiency for over 50% of respondents was found. Results also show that Africans who are not English proficient have no gain in the returns to

completed secondary or post-secondary education outcomes. In the study, African men who had post-secondary education earned approximately 97% more if they were also proficient in the English language. Statistical results were low but positive, and showed positive correlations between English proficiency and earnings, at least in the case of South Africa. Correlations were expected to be high, but this may be due to this survey situation, and may also be due to the accuracy of obtaining English proficiency. In many data collection situations, respondents' own English ability is self-reported. However, this is not accurate as self-reported abilities can be over or under-valued. In addition, this study focused on reading and writing only as the main determinant of English proficiency. Casale suggests a better method of determining English ability is through a proxy such as test scores (such as TOEFL or TOEIC), but this excludes many developing countries due to the cost. Perhaps the best way is a language proficiency test during face-to-face interviews. While these methods are time consuming and costly, similar methods must be achieved to measure English proficiency accurately. This could be accomplished by creating simplified version of a language proficiency assessment test, which should be produced and offered inexpensively over the Internet.

Bleakley and Chin's, *Language Skills and Earnings: Evidence from Childhood Immigrants* (2003) found positive results when measuring English proficiency and wages with adult migrants who immigrated to America as children. They worked under the assumption that inadequate language skills increase the earnings gap when measured with nativity. The 2000 U.S. Census, on which Bleakley and Chin base their research, stated that 10.4% of the U.S. population was foreign born, and that most immigrants were from non-English speaking countries. In the U.S. Census, respondents rated their own English ability on five levels: speaking *only English*, speaking *very well*, speaking *well*, *not well*, or *not at all*. In the 2000 census, 47 million residents in the US spoke a language other than English at home, and that 21 million of those spoke English less than *very well*. Bleakley and Chin found a positive effect on income and education in previous research using 1990 census data. A dramatic part of the effect of language skills appears to be achieved by schooling. Language proficiency's role in the establishment of human capital is more important that the effect of language on the entire labor product. When examined in a comparison with US immigrants, it can be predicted that those who enter the U.S. at a young age will be more adept at learning English as a second language than those who arrive later. This prediction is used in Bleakley and Chin's research; results for *returns to language education* show that one unit of increase in English speaking ability can increase wage rates by 39%. Investment in education may point to a significant boost in earnings, and can resemble earning patterns by age at arrival. Results show the effect of language skills on earnings show that those who can speak English *very well* can earn 33% more than whose who speak just *well*. As for the contribution of English language proficiency on income, results show that proficiency in English brings a substantial increase in incomes. Much of this effect has to do with age of individual arrival into the U.S. and also to amount of education undertaken by the subjects. In conclusion, Bleakley and chin found a positive effect on wage rates from individuals, from the 1990 census in the

U.S., who migrated there as children. Bleakly and Chin state that policymakers should be aware of these factors in designing classes for immigrants.

Jeremy Sandford (2002) measured the importance of English language on the wage rates of Mexican migrants into the U.S. English language has an effect on the wage rates of Mexican migrants into the U.S. The 1990's saw a higher increase in Mexican migration than any other decade (INS 1999 in Sandford, 2002). Mexicans had one of the largest incomes among many groups, but earned much less than natives. Sandford points out that this could be due to the fact that Mexican migrants are self-segregated from the remainder of society; many lived in Hispanic-only neighborhoods in 1990 to be among those who share their culture and language. Unfortunately, many of those people also share low education and low English language skills. As such, they have less chance to escape poorer areas. Moreover, employers are not likely to open businesses in these areas, and as a result, Mexicans earn lower income. Sandford argued that English language *deficiency*, or the lack of English language skills, could determine this wage gap difference between native English speaking males and Mexican immigrants. Sandford (2002) hypothesized that Mexican migrants will not be able to move to higher levels because they lack communication skills, and used a sample of 81,059 adult Mexican migrants into the U.S. labor force from the 1990 U.S. Census to study the effect of English Language deficiency on incomes. The sample consisted of males 18 years of age and over who were born in Mexico and included in the U.S. Census as citizens. Sandford's study used census data in which respondents rated their own English ability as to: speaking *only English*, speaking *very well*, speaking *well*, *not well*, or *not at all*. Sandford wished to measure language *deficiency*, and its effects on earnings. Results showed that those with college degrees but spoke no English earned 71.5% less overall than fluent English-speaking College graduates. Even those with a high school degree and spoke some English had a deficiency rating of only 30%. Those with labor experience can benefit with an extra year of experience, and earn 2.6% more. Some results show that a college degree helps earn 72.6% more than those with less than a high school education. Results also show that only migrants with a high school diploma or some labor force experience will make less than migrants who speak English proficiently. Results also showed that migrants who *do not speak English at all* earn half of what migrants who can speak English *very well* make. English speakers are generally better educated, and perhaps differences in human capital can explain this wage gap. English is important because English-speaking firms will offer more jobs in the long run, and English speakers can interact with co-workers better, and can learn about technology in English more quickly than non-English speakers. Employers do not hire those without the dominant language of the nation because they are less useful. Similarly, the author reasons that those with English proficiency in tourism will be able to find work easier, communicate efficiently with guests, and gain income advancement more readily within tourism related business in developing countries. A suggestion by Sandford for future research is to conduct a similar study with a better, clearer measure of English language proficiency. This statement adheres to the author's goal in that the author has developed a clearer numerical English

proficiency determination. The U.S. should also promote English education programs that would raise migrant earnings by increasing the return to their human capital investments.

The above studies are useful and interesting and verify the relationship between generation of employment and income through English among the labor force in Africa and America. It is difficult to apply the same research and analysis method in Cambodia, particularly due to the lack of similar data and information there. For this reason the author personally conducted the surveys within Siem Reap to collect data which otherwise was unobtainable. Data collection on site is also difficult because of the differing lifestyles, backgrounds, socioeconomic problems, and ways of answering questions during survey interviews. These are shortcomings, but through this literature review, the author wanted to show evidence that English proficiency is important in many different countries for better incomes and employment in many situations. Although there is no direct evidence in the case of Siem Reap, the author wished to emphasize that English is not only important for native English speakers, but also for migrants to developed countries and for those in developing countries as well.

Conclusion

This chapter examined several documents related to the author's study: human capital, English language proficiency in a developing country, language skills and earning in migrants to America, and income rates with English proficiency in Mexican migrants to the U.S. These studies have shown that, without fail, English proficiency is important in obtaining higher incomes in both developed and developing countries. These studies used census data or a national income survey to gather and analyze data. In all cases the outcome empirically demonstrated the importance of English language proficiency to employment and income. However, all of the above studies used self-reported assessments from census data to analyze English proficiency assessment data, which is not accurate enough. This is not the fault of the researchers, but rather limited knowledge of measuring language proficiency. Therefore, the author wanted build on existing research concerning English language proficiency for employment and income, and to improve upon the limitations of using self-reported English language proficiency data by creating and utilizing a numeric and quantifiable language assessment system. This system has ensured that the author and the research team have obtained true and accurate results that can be correlated with other numeric data such as income, years of English study, hours of English study, money spent on learning English monthly, and the like. The next chapter more full explains the background of Cambodia, and offers a more detailed synopsis of the survey city: Siem Reap. A detailed discussion of the role of English in procuring better employment and income, as well as an analysis of survey results, can be found in chapter 3.

Chapter 2. General Socioeconomic Background of Cambodia

Introduction

This chapter will explain the background of Cambodia and Siem Reap, including the location, geographical features, and employment aspects, which will prove useful to being able to understand Cambodia more fully. This will assist the reader in understanding the hardships faced by Cambodia, and its subsequent slow development. Section 1 views the location of Cambodia, and gives geographical features. Section 2 introduces Siem Reap, considered to be the gateway to Angkor Wat and includes employment data. Section 3 explains 3 important factors in development post Pol Pot: international agencies, trade, and tourism. Section 4 introduces general education in Cambodia as well as a retrospective view of English education in Cambodia and tertiary English education leading to its role in the TI of Siem Reap.

2.1 Location of Cambodia and General Features

Cambodia is located in Indo-China, bordered by Laos to the northeast, Thailand to the north and west, and Vietnam to the south and southeast (Fig. 2.1). Roughly the same size as the U.S. state of Missouri, it has a small coastline on the south. Cambodia is basically a plain country, with the Cardamom Mountains on the north and southwest and the Mekong River to the east. The central plain is situated around Tonle Sap Lake, south of the Angkor area and the city of Siem Reap. The land area is 176,519 square kilometers (68,154 square miles). The estimated population as of 2010 is 14,753,320, consisting mainly of Khmer (90%), Vietnamese (5%), Chinese (1%), other (4%).

Figure 2.1 Map of Cambodia

Source: Map of Cambodia, yatesweb.com, 2011.

Table 2.1 General Features of Cambodia

Particulars	Unit of measure
1. Total population*	13.4 Million
2. Total land area	181,035/km2
3. Total Male*	6,516,000
4. Total Female*	6,880,000
5. Sex-ratio*	94.7%
6. Total working age population (both sexes-Cambodia)**	8,865,000
7. Labor force participation rate (both sexes-Cambodia)**	84.4%
8. Employment rate (both sexes-Cambodia)**	84.3%
9. Population Density**	75 persons/km2

Source: *Ministry of Tourism, 2010; General Population Census of Cambodia, 2008, **Cambodia Socio-economic Survey, National Institute of Statistics, 2009.

The total population is around 13.4 million, and was arrived at through the 2008 census. The Statistical Yearbook of Cambodia from 2011 states that, in fact Cambodia's population is declining. This is most likely due to the tragic loss of life during the 1970's. The total population sees more females than males, evident at a 94.7% sex ratio. The total working age population is 8.8 million, and labor force participation rate is 84%. Employment is long considered a problem in Cambodia, but the above data show the employment rate is actually 84.3%. This is because employment in Cambodia categorizes both those working and looking for work. More information on Cambodia employment is found later in this chapter. The population density is 75 persons per square kilometer.

2.2 Siem Reap, Gateway to Angkor

Siem Reap province is located in the northwestern part of Cambodia, north of Phnom Penh and around Tonle Sap Lake. It is also the home of Angkor Wat, which became a world heritage site in 1992. As of the last national census, the total population of Siem Reap Province was 903,030 or 6.3% of the country's total of 14,753,320. The population of Siem Reap Province was comprised of 440,395 males and 462,365 females. The land area of Siem Reap Province is 10,299 km. The population of Siem Reap City is 171,800 (Ministry of Planning, 2009). Table 2.2 provides general features of Siem Reap.

Table 2.2 General Features of Siem Reap Province

Particulars	Unit of measure
1. Total population*	903,030
2. Total land area*	10,299km
3. Total Male*	440,395
4. Total Female*	462,365
5. Sex Ratio (number of males per 100 females)*	95.6%
6. Number of households*	180,097
7. Total labor force (both sexes-Cambodia)*	7,844,000
8. Labor force participation rate (both sexes-Cambodia)*	75%
9. Employment rate (both sexes-Cambodia)*	75%
10. Share of working labor force*	5.2%
11. Total establishments (Siem Reap province)*	28,343
12. Dependency ratio**	81
13. Population Density*	87 persons/km2

Source: *Cambodia Socioeconomic Survey, Ministry of Planning, 2009; **General Population Census of Cambodia, Ministry of Planning, 2008.

Siem Reap has become a thriving town center built along the Siem Reap River, within distance of Angkor Wat. Souvenir shops are located in the downtown Old Market area along with trendy restaurants, pubs, and guesthouses. It is also close to Tonle Sap Lake, important for fishing and a major sightseeing hub in Siem Reap. Siem Reap offers much to do for the traveler, including a visit to Angkor Wat and surrounding temples, a ride on Tonle Sap Lake, shopping at one of the many souvenir shops, visiting a handicraft museum and workshop, and eating at one of the many restaurants enveloping the area.

2.2.1 Cambodian Employment [10]

In 2009, 84% of the working age population (ages 15-64) in Cambodia participated in the labor force, and 83% was considered employed, and 0.1% was considered unemployed. At that time, 88% of men and 80% of women were employed. Other employment data from the National Institute of Statistics of Cambodia in Table 2.3 shows that the percentage of working age population per sector, in 2010 is the highest percentage in tourist industry (TI) at 75% in Phnom Penh, 63% in other urban areas (such as Siem Reap), and 21% in other rural areas (National Institute of Statistics, 2010). TI of course falls under the services sector, and although it is low in rural areas, the service sector provides necessary employment for young Cambodians who have drive and ability. The services sector has large investment from foreign owners who can speak English well; those working in services need and use English as an International Language (EIL) regularly.

Table 2.3 Employed Population Share by Sector and Region, 2010

	Phnom Penh	Other Urban	Other Rural
Employed Population	687,000	772,000	6,214,000
Agriculture (share %)	1.6	19.7	64.3
Industry (share %)	23.3	17.8	15.3
Services (share %)	74.9	62.5	20.5
Other {Mining, etc} (share %)	0.2	0.0	0.0
Total	100%	100%	100%

Source: Labor and Social Trends of Cambodia, Ministry of Planning, 2010.

This table details the educational background of the labor force in certain sectors. It goes without saying that education is necessary for employees from many sectors. According to the 2011 Statistical Yearbook of Cambodia, 71% of both men and women in the labor force ages 15-64 with post-secondary education were employed, compared with 59% who were unemployed. In addition, 43.3% of employed service workers completed secondary schooling, as compared to 6.5% who had no schooling at all; of those remaining, 24.9% had not completed primary school, and 25.3% of employed labor force had completed primary school only. The next section contains information on three important businesses that helped Cambodia in redevelopment.

[10] Some material in this sub-section was previously published in Morrow (2014), pages 108-109.

2.3 Three Main Businesses in Development Post Khmer Rouge

In the early 1970's, a son of a wealthy landowner, Pol Pot (whose official name was Saloth Sar) became involved in communist activities while in France during study there in the early 1950's.[11] A poor student, he soon dropped studying altogether in favor of taking up with the Communist cause and quickly became completely engrossed. Upon returning to Cambodia, he joined the United Freedom Front (a Cambodian group of communists who were against French rule), and then found his way into the Khmer People's Revolutionary Party; this was the first group of communists in Cambodia. He began to hate intellectuals and politicians around this time and with several followers secretly began the Workers' Party of Kampuchea (WPK) at the railway station of Phnom Penh during September 1960. It appears he changed his name to protect his family. Pol Pot continued to organize his WPK with followers in the remote forests of Cambodia for the next thirteen years. His influence became stronger and stronger, and he aimed to stay on the positive side of Vietnamese communists who were themselves striving for control of Cambodia. Eventually, Pol Pot made numerous trips to Beijing to study organization fundamentals. The WPK thereafter changed its name to the Communist Party of Kampuchea (CPK), and Pol Pot was elected as Secretary General. In 1975, a new state of "democracy" was formed during a struggle for power between pro-Sihanouk groups, other communist groups, and Pol Pot's own CPK. During 1976, a new Democratic Kampuchea (DK) was created, and Pol Pot became premier; other top officials were quick to denounce and chastise many of the decisions by the leader, and rivalry intensified. Pol Pot began to remove any opponent in his party from office, including top party leaders such as cabinet ministers. It was at this time he began to force ordinary citizens into labor, and killed, tortured, and maimed university professors, academics, lawyers, doctors, and students, around 20% of the total population of Cambodia. Eventually animosity towards Pol Pot grew, and the Vietnamese attacked DK strongholds in Phnom Penh, forcing Pol Pot and the Khmer Rouge to disperse in January of 1979. However, they re-grouped in the forests around the Cardamom Mountains, and continued attacks on civilian territory. In July 1979, Pol Pot was tried in absentia for one of the worst mass murder episodes since Hitler. He stepped down as DK prime minister in December 1979, but remained as the secretary general of the CPK military commission, the top leading position of an over 20,000-man force army battling Vietnamese troops in Phnom Penh. After this the whereabouts of Pol Pot became unknown; in 1985 the DK officially announced that he had retired from the DK. In addition, they stated that he was re-appointed to the position of Director of Higher Institute for National Defense, although this position was most likely a façade. Even so, as the recognized communist leader of Cambodia, he unbelievably continued to hold onto power. He remained underground yet still in power while Phnom Penh continued to be demolished in the face of battle. He was eventually captured in 1997, after being hunted down by former Khmer Rouge

[11] See http://www.notablebiographies.com/Pe-Pu/Pol-Pot.html for further discussion.

Guerillas who had turned on their former leader and joined forces with Sihanouk. He was sentenced to life in prison where he died of heart failure in 1998. Table 2.4 contains the chronological events surrounding the Pol Pot/Khmer Rouge regime.

Table 2.4 Chronological Events Surrounding Pol Pot Regime

Year	Event
1953	Cambodia won independence from France. It became the Kingdom of Cambodia under King Sihanouk.
1960	Norodom Sihanouk became head of state of Cambodia after the death of his father, King Sihanouk.
1969	Sihanouk broke away from U.S. and allowed North Vietnam to base itself in Cambodia to fight against U.S. backed South Vietnam.
1970	Prime minister Lon Nol overthrew Sihanouk in a coup, organized the Khmer Republic, and sent soldiers to fight the North Vietnamese.
1975	Lon Nol was overthrown by the Khmer Rouge, led by Pol Pot, and soon overtook Phnom Penh.
1976	Democratic Kampuchea was formed. Pol Pot became prime minister.
1977	Fighting began with Vietnam.
1978	Vietnam invaded Cambodia.
1979	Vietnam overtook Phnom Penh, Pol Pot, the Khmer Rouge escaped to the Thai border, and the People's Republic of Kampuchea was established.
1981	The Kampuchean People's Revolutionary Party was elected into power, but it was unrecognized by international communities.
1985	Hun Sen became prime minister of Cambodia, but guerilla warfare continued.
1989	Vietnamese army withdrew from Cambodia. Socialism was abolished. The country was renamed Cambodia.

Source: BBC News, Asia-Pacific, 2012.

After the regime of Pol Pot, the country was in virtual tatters; it lacked data, education and medical facilities, and valuable city infrastructure. This section will examine three of the elements that were combined to assist Cambodia in its rebuilding efforts after the Pol Pot regime: 1) international assistance through aid agency establishments, which greatly incorporated generous donations from many countries, such as Russia, Japan, France, and the U.S.; 2) trade which allowed the garment business to increase on a large scale. Along with other FDI, this allowed hotels and restaurants in the tourism sector to thrive; and 3) tourism, which helped Cambodia and Angkor Wat become known around the world after becoming a World Heritage Site.

2.3.1 International Aid Agencies

Foreign aid in Cambodia after Pol Pot is an important milestone in lifting Cambodia out of the hardships faced during the Khmer Rouge era, and took several different forms. One aspect is the assistance of aid agencies, brought in first to help the Cambodian population, which was badly in need of food, water, sanitation and the like, and was facing famine. Cambodian refugees in 1979 appeared in America, having just escaped from the terror within Cambodia. Many aid agencies took root in Phnom Penh in 1979. Right after the ousting of the Khmer Rouge by the Vietnamese, the country was in ruins. Currency, electricity, banks, infrastructure, education, clean water, and sanitation did not exist. The most serious problem facing Cambodia at that time was famine, brought about by Pol Pot's failed attempt at creating an agricultural utopia. In addition, many of the people who were familiar with these systems and therefore able to assist in the rebuilding of infrastructure, water systems, and other institutions were dead. From 1979 to 1981, several United Nations agencies, the Red Cross, and

over 50 Non-governmental organizations (NGO'S) established themselves in Phnom Penh to commence assistance efforts (Clayton, 2006).

Table 2.5 details the aid agencies in Cambodia then and presently. This is important due to the fact that aid agencies donated millions of US dollars in aid to Cambodia. The table displays the type of agency, name, associated country, and aid amount (Table 2.5).

Table 2.5 International Aid Agencies in Cambodia and Aid Amount (to 2006)

Type of Agency	**Examples of Participating Agencies**	**Participating Countries and Aid Amount (in US $million) Total Aid = US$ 4.2 billion**
Bilateral (given by wealthy, developed nations to poorer)	Japan International Cooperation Agency (JICA), the United States Agency for International Development, the Australian Agency for International Development, the Swedish International Development Cooperation Agency.	Japan (US $913), France (US $311), U.S. (US $300), Sweden (US $145) Aid amount = US $2.4 billion (58% of total)
Multi-Lateral (nations involved with global development agencies)	United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), World Health Organization (WHO), European Union, and	United States, Japan, Netherlands, Norway, Sweden, Belgium, Canada, France, United Kingdom Aid amount = US $695 (17% of total)
International and Regional Finance Institutions (banking)	International Monetary Fund (IMF), World Bank (WB), Asian Development Bank (ADB)	United States, France, United Kingdom Aid amount = US $682 (17% of total)
Non-Governmental Organizations (NGO's)	Church Wood Service, Concern, Doctors without Borders, Dan Church Aid, International Volunteers of Yamaguchi	United States, Ireland, France, Denmark, Switzerland, Japan Aid amount = US $338 (8% of total)

Source: Adapted from Clayton, 2006.

Aid was disseminated from four types of aid agencies: bilateral, which entails giving aid to poor nations from developed ones; multilateral, in which nations are members of organizations that support development efforts worldwide; international and regional institutions are those individual nations and financial institutions which assist developing nations; and non-governmental organizations (NGO's) which are not for profit establishments collecting aid through donations and charity work. English is studied because of the hundreds of foreign aid agencies and foreign companies that have established themselves in Cambodia during rebuilding efforts. Basically all the connected jobs require English language communication ability in both writing and speaking, and in both every day and official communication. Cambodians needed to learn English to work with aid agencies, and they also learned English as they worked. After much work immediately after relief efforts slowed down, Cambodians began entering other industries. English was clearly an access point to getting jobs with aid agencies and other development efforts. In fact, all economic enterprises from countries such as Denmark, Malaysia, and Sweden require English Language skills among the Cambodians they employ (Clayton 2006) even today. With millions of $US having been invested in aid agencies, they

are an important part of the recent development of Cambodia as illustrated in Table 2.5 (Clayton, 2006).

2.3.2 Trade

Trade within Cambodia took an important turn in the 1990's, with much foreign direct investment (FDI) in agriculture, technology, and others. Even before the stage where Cambodia was into development as it known in the economic world, it first went through the relief stage. At this point Cambodia received a plethora of assistance dollars and the trade arena blossomed. As the following section illustrates, FDI was extremely important in the early development in Cambodia immediately following Pol Pot and Khmer Rouge.

Along with aid agency involvement, trade has also become important in Cambodia. Although Cambodia was formerly a French colony, it began to use English as a vehicle for economic growth. Investments have reached over five billion dollars from outside countries to date. Significantly, Cambodia began manufacturing and exporting garments because facilities are quite easy to establish and operate. Most exports of garments are to the U.S. and Canada. These jobs require employees to speak English. Investments have been made in hotels and restaurants in the tourism sector as well. FDI has made a large contribution to the economy, and investment by many countries and corporations have been in the garment and rubber businesses. Within the 24 provinces of Cambodia, FDI has been unevenly distributed, with Phnom Penh, the country's capital, receiving the highest FDI, and Sihanoukville second highest. Other benefits to FDI have been spread around in Phnom Penh and Siem Reap in hotels and restaurants due to the bustling tourist industry. During the period 1994-2004, the textile, garment, and hotels and restaurants sectors were strong attractors of FDI, most likely due to the Most Favored Nation (MFN) status being granted Cambodia, in addition to becoming a beneficiary of Generalized System of Preferences (GSP) from the USA and European countries. This meant that Cambodia had to be given preference for importing garments and the like. Table 2.6 illustrates the approved and actual amounts of FDI contributions in three important tourism cities from 1994-2004.

Table 2.6 FDI in Phnom Penh, Sihanoukville, and Siem Reap 1994-2004 (US$1,000)

Province	Textile		Apparel		Hotels and Restaurants	
	Approved*	Actual	Approved	Actual	Approved	Actual
Phnom Penh	66,877	17,201	888,690	644,663	784,660	270,954
Sihoukville	29,903	29,903	29,864	19,614	184	0
Siem Reap	0	0	0	0	107,317	90,354
Total	96,780	47,104	918,554	664,277	892,161	361,308

Source: Compiled by the author from information from Cuyvers, et al, 2006 *Approved FDI refers to the amount of FDI approved by the Cambodian government. Actual FDI refers to the true amount given for projects.

Through FDI, Cambodia had a high realized FDI for the period 1994-2004 in trade, transport, manufacturing, furniture, and apparel. The combined FDI in textile and garment sectors reached

almost 30% of FDI in the Cambodia, while the hotel/restaurant sectors reached 20% in the same period (Cuyvers, Soen, Van den Bulke, 2006) in Table 2.7. FDI was strong in Cambodia, and therefore, English was needed for dealings in FDI and with trade aspects.

Table 2.7 Percent of Realized FDI in Fixed Capital in Selected Industries, 1994-2004

Apparel	Hotels/Restaurants	Transport	Furniture	Textile
25.51%	19.56%	15.46%	4.02%	3.64%

Source: Cuyvers, Soeng, Van den Bulcke, 2006.

2.3.3 Tourism[12]

Tourism became one of the stable sectors in Cambodia around 1993, which denotes the time period that the Khmer Rouge threats to safety subsided almost entirely. It was this time that the world became interested in Angkor Wat near Siem Reap, and began hearing more and more about the mysterious country, which previously had been closed off. Advertising and tourism campaigns piqued curiosity among world travelers; Cambodia found itself a popular destination for back packers and young travelers. Now it is a destination not only for backpackers or young adventurers, but also for those who desire a trip to a true cultural tourist destination. This paper will now introduce the tourism sector in present day Cambodia in order to examine the economic growth towards GDP in the tourism sector.

National and per capita GDP increase and economic impact from tourism have been significant for developing countries all over the world. TI was a major source of revenue for continued economic growth in the future. In 2012, international visitors to Cambodia reached 3,584,307 up from 2,881,862 in 2011 (Table 2.8), a 24.4% of change. This is an increase of almost 700,000 travelers, which is quite a large amount considering that the world had just recovered from the Lehman Shock of 2008. In 1999, the number of total tourists was at 367,743. It has until now increased nearly 10 times to 3,584,307 in 2012. Economic contributions to GDP from TI receipts in 2012 was US $2.2 million; TI has been continually the largest contributor to service sector growth, with hotel occupancy rates at over 68% in 2012 (Cambodia Ministry of Tourism, 2012).

[12] Some material in this sub-section was previously published in Lwin and Morrow (2013), pages 102-107, and in Morrow (2014), pages 106-109.

Table 2.8 Cambodia Visitor Arrivals, 1999-2012.

Year	Total Number of Tourists	Percent of Change	Average Length of Stay (days)	Hotel Occupancy (%)	Tourism Receipts (US $million)
1999	367,743	27.02	5.50	44.00	190
2000	466,365	26.82	5.50	45.00	228
2001	604,919	29.71	5.50	48.00	304
2002	786,524	30.02	5.80	50.00	379
2003	701,014	-10.87*	5.50	50.00	347
2004	1,055,202	50.53	6.30	52.00	578
2005	1,421,615	34.72	6.30	52.00	832
2006	1,700,041	19.59	6.50	54.79	1,049
2007	2,015,128	18.53	6.50	54.79	1,400
2008	2,125,465	5.48	6.65	62.68	1,595
2009	2,161,577	1.70	6.45	63.57	1,561
2010	2,508,289	16.04	6.45	65.74	1,786
2011	2,881,862	14.90	6.50	66.15	1,912
2012	3,584,307	24.4	6.30	68.49	2,210

Source: Tourism Statistics Annual Report, Ministry of Tourism, 2012.
*This decline is due to the Phnom Penh Riots of 2003.

International visitors also travel directly to Angkor Wat. As can be seen in Table 2.9, the numbers of travelers to Siem Reap from 2000-2010 have risen consistently. Due to tourism growth, an expansion boom occurred in Siem Reap during the first decade of the twenty-first century. Angkor Wat captured the imagination of would-be travelers from many parts of the globe; it became World Heritage site in 1992. Siem Reap, with FDI, constructed new hotels, restaurants, and guesthouses, and revamped the city of Siem Reap. In the case of purpose of visit, it is easily discernible that most people visit Siem Reap for tourism activities, and has increased steadily from 2002. It is also worthy to note that this data lists businesses and other as alternative reasons that travelers visit Cambodia.

Table 2.9 Travelers to Siem Reap by Purpose of Visit (number), 2002-2010

Year	Tourist	Business	Other
2002	195,776	2,670	4,345
2003	178,638	2,848	4,812
2004	297,279	2,746	9,348
2005	426,807	2,821	10,497
2006	591,474	2,778	5,423
2007	751,537	5,699	4,015
2008	656,776	7,063	4,665
2009	574,571	4,720	4,693
2010	704,254	4,658	3,760

Source: Tourism Statistics Annual Report, Ministry of Tourism, 2011.

Table 2.10 shows the list of top 10 tourist arrivals to Cambodia in 2011-2012. In 2011, the top 5 were Asian countries: Vietnam, Korea, China, Lao, and Thailand whose visitors would most likely use international English to communicate, 6th was Japan, whose visitors would probably use English as an International Language, or have the opportunity to have a Japanese speaking exchange with employees. Following at 7th place was the U.S.A., whose visitors would definitely use native English, and 8th was France whose visitors would use either France (since Cambodia was a former French colony) or EIL, and 9th was Australia whose visitors use native English in all communication. Finally, 10th was Malaysia whose visitors would most likely use EIL in communication. Within the

top 10, 3 were inner circle countries, in which English is the mother tongue, 2 were outer circle, where English is a main language or lingua franca, and 4 were expanding circle countries where English is used a foreign language.[13] In addition, Table 2.10 shows 2012 arrival country population to illustrate the number of travelers who potentially use English in pleasure travel, along with the number of those in 2012 who specifically traveled for pleasure, increasing the demand for tour guides who use English. Table 2.10 also shows the percentage of those who engaged in pleasure travel in 2012; it is evident that most people from the top 10 countries to Cambodia traveled for pleasure, and furthermore the strengthening the use of English in activities. The tourist share denotes the total share of tourists to Cambodia from each country.

Table 2.10 Top 10 Tourist Arrivals to Cambodia, 2011-2012 (number)

Country	2012 Arrival Country Population (millions)	2011 Total Cambodia Arrivals (Number)	2012 Total Cambodia Arrivals (Number)	2012 Pleasure Travel (Number)	2012 Pleasure Travel (% of total)	Tourist Share %, 2012
1. Vietnam**	**89.0**	**614,090**	**763,136**	**735,781**	**96**	**21.3**
2. Korea***	**48.9**	**342,810**	**411,491**	**392,373**	**95**	**11.5**
3. China***	**1,350.4**	**247,197**	**333,894**	**281,669**	**84**	**9.3**
4. Lao PDR**	**6.5**	**128,525**	**254,022**	**253,241**	**99**	**7.1**
5. Thailand**	**69.9**	**116,758**	**201,422**	**183,824**	**91**	**5.6**
6. Japan***	**127.6**	**161,804**	**179,327**	**167,410**	**93**	**5.0**
7. U.S.A.*	**313.9**	**153,953**	**173,706**	**131,895**	**75**	**4.8**
8. France***	**63.6**	**117,408**	**121,175**	**96,017**	**79**	**3.4**
9. Australia*	**22.0**	**105,010**	**117,729**	**98,414**	**83**	**3.3**
10. Malaysia*	**29.0**	**102,929**	**116,764**	**109,127**	**93**	**3.3**

Source: Tourism Statistics Annual Report, Ministry of Tourism, 2012. *Inner circle countries. **Outer circle countries. ***Expanding circle countries.

Outer circle Asian countries topped the list of international visitors in 2011-12. Even so, English was most likely used as an international language by these groups. Yoneoka (2009), who has done extensive research on language needs of East-Asian tourism, found that among East Asian countries of CJK (China, Japan, and Korea), English as an International Language (EIL) is widely needed, especially in tourism businesses. Table 2.10 shows that CJK were countries that visited Cambodia in 2011-12, and according to Yoneoka, probably used EIL in travel. Other countries also used native English or EIL in day-to-day travel. In addition, in 2010 pleasure tourists directly to Siem Reap increased to 704,254 from 195,776 in 2002 (Table 2.10). Travelers to Siem Reap for business showed a growth of 461,000 travelers between 2002 and 2008, and this number actually declined by 2,343 travelers in 2009. Travelers to SR for official purposes declined by 585 people between 2002 and 2010. Even with this decline, travelers for business and official reasons from both inner and outer circle countries most likely used English for communication purposes. Unfortunately, as of this writing data on purpose of visit for tourists to Siem Reap in 2011, 2012, and 2013, had not yet been compiled by the Ministry of Tourism.

Cambodia is now presently striving to offer ample hotel space at a high quality, unique tour destinations, and interesting tourism activities. Table 2.11 shows the total number of guesthouses and

[13] See Kachru, 1985, for further discussion.

hotels in Cambodia. As the table illustrates, the number of hotels has increased nationwide, as have the number of rooms. In the year 2010 with a difficult global financial situation the percent of change over the previous year dropped from 13.32 % to -2.44% in total. The percent of change in number of hotel rooms is 6% over the previous year, down from around 11%.

Table 2.11 Total Guest Houses and Hotels in Cambodia, 1997-2010

Year	Total Number		Change (%)		Room Number		Change (%)	
	Guest House	Hotel	Guest House	Hotel	Guest House	Hotel	Guest House	Hotel
1997	60	179	0	0	477	6,989	0	0
1998	147	216	145.00	20.67	1,510	8,247	216.56	18.00
1999	186	221	26.53	2.31	1,897	9,115	25.63	10.53
2000	292	240	56.99	8.60	3,233	9,673	70.43	6.12
2001	370	247	26.71	2.92	3,899	10,804	20.60	11.69
2002	509	267	37.57	8.10	6,109	11,426	56.68	5.76
2003	549	292	7.86	9.36	6,497	13,201	6.35	15.53
2004	615	299	12.02	2.40	7,684	14,271	18.27	8.11
2005	684	317	11.22	6.02	9,000	15,465	17.13	8.37
2006	742	351	8.48	10.73	9,166	17,914	1.84	15.84
2007	891	395	10.08	12.54	11,563	20,470	26.15	14.27
2008	925	398	3.82	0.76	12,180	20,678	5.34	1.02
2009	1,018	451	10.05	13.32	14,512	23,010	19.15	11.28
2010	1,087	440	6.78	-2.44	15,321	24,393	5.57	6.01

Source: Tourism Statistical Annual Report, Ministry of Tourism, 2010.

Table 2.12 displays the distribution of hotels and guesthouses by tourist destination in 2010. Phnom Penh contained 159 hotels and many hotel rooms in 2010 at 6,920. Interestingly, Siem Reap Province had 124 4 and 5-Star hotels and more hotel rooms than the country's capital city at 9,438 in 2010. In addition, SR had 232 guesthouses alone, with 3,064 rooms. Because of this fact, it cannot be doubted that Siem Reap is one of the only tourist destinations of its kind in the world.

Table 2.12 Distributions of Hotels and Guest Houses by Tourist Destination, 2010

	Hotels		Guest Houses	
City	**Number**	**Room**	**Number**	**Room**
Phnom Penh	159	6,920	365	5,351
Siem Reap	124	9,438	232	3,064
Sihanoukville	45	1,952	115	1,671
Kratie	7	269	22	245
Banteay Mancheay	13	517	28	525
Battambang	26	1,333	32	655

Source: Adapted from Ministry of Tourism Data, 2011.

Along with the increase in international travelers, travel agencies and tour operators increased as well, especially in during the period of 1998-2001. There appears to have been a large jump between 1999 and 2000, and a relatively large jump between 2003 and 2004. Table 2.13 outlays the total number of travel agencies and tour operators in Cambodia, and the head and branch offices from 1996-2010 including the increase change percent.

Table 2.13 Travel Agencies and Tour Operators, 1996-2010

Year	Head Office (Number)	Branch Total (Number)	Total	Increase Change (%)
1996	81	35	116	0%
1997	78	37	115	-0.86%
1998	103	34	137	19.13%
1999	117	43	160	16.79%
2000	140	64	204	27.50%
2001	166	70	236	15.69%
2002	186	73	259	9.75%
2003	186	84	270	4.25%
2004	208	94	302	11.85%
2005	237	99	336	11.26%
2006	277	105	382	13.69%
2007	333	118	451	18.06%
2008	354	119	473	4.88%
2009	372	113	485	2.54%
2010	392	115	507	4.54%

Source: Cambodia Ministry of Tourism, 2010.

Travel agencies have increased as well as noted in Table 2.14. Data regarding the distribution of travel agencies in Cambodia between 2003 and 2010 show that travel agencies have increased by over 100 in both Phnom Penh and Siem Reap during the same time period, reflecting the surge in tourism. Sihanoukville and Banteay Meanchey travel agencies have increased very little, showing the distribution remains in the capital city of Phnom Penh as well as the tourist city of Siem Reap.

Table 2.14 Distributions of Travel Agencies in Cambodia, 2003-2010

City	2003	2004	2005	2006	2007	2008	2009	2010
Phnom Penh	150	156	168	199	232	249	258	258
Siem Reap	103	124	145	163	192	200	205	225
Sihanoukville	3	2	2	2	5	4	4	4
Banteay Meanchey	9	12	15	11	12	12	12	12

Source: Adapted from Ministry of Tourism Data, 2011

Along with the obvious growth of tourism and the development of travel agencies and tour operators, licensed tour guides, trained by language, have increased, especially in Phnom Penh and Siem Reap. The Ministry of Tourism reports data by *licensed* in official documentation. The term and usage of the word, *licensed*, is not made clear in the annual report, however (Table 2.15). The author has taken this to mean that the tour guides may have had to undergo and pass a language examination in order to obtain jobs; however, the author was unable to find any data supporting this fact.

Table 2.15 Number of Licensed Tour Guides, 2008-2010

Year	2008		2009		2010	
Language	**Phnom Penh**	**Siem Reap**	**Phnom Penh**	**Siem Reap**	**Phnom Penh**	**Siem Reap**
English	129	795	133	1,081	143	1,101
Japanese	46	583	46	651	46	659
French	46	165	52	191	54	192
Chinese	48	179	60	297	64	303
Korean	2	77	2	101	2	101
Thai	9	211	9	234	9	234
German	23	71	26	87	28	89
Vietnamese	4	6	5	16	5	16

Source: Tourism Statistics Annual Report, Ministry of Tourism, 2010.

Restaurant and souvenir shop totals have increased as well throughout Cambodia, reflecting the surge in FDI offerings throughout the period of redevelopment. It must be taken into account that some souvenir shops are in the informal sector, and may not be registered as formal businesses; this fact was seen first-hand by the author when surveying in Siem Reap. The reality of no data on souvenir shops required the author to manually tabulate the number of souvenir shops for use in the cross-sectional surveys completed by the author. Travelers visit the whole of Cambodia for several reasons including sightseeing, business, and other aspects include volunteer and political reasons. This upsurge allowed Siem Reap and all of Cambodia to be propelled into economic recovery due to the tourism industry.

2.4 English Education in Cambodia: A Retrospective Tourism View

In the early 1980's, learning and teaching English was forbidden in Cambodia for the purpose of isolation, but after the cold war in the 1980's, relations were slowly normalized with the west, and Australian and French NGO's allowed English and more French education into the country. In this section, general education background is offered. English education is also examined, and the present English educational system in Cambodia is also presented here.

2.4.1 General Education Background

When the Khmer Rouge led by Pol Pot overthrew Phnom Penh and eventually took over the entire country, education was virtually thrown out the window. Urban populations were forced to leave their homes to work in the fields, slaving for 12-15 hours each day. A large percentage of Cambodia's population was executed or died from starvation or disease. Intellectuals were brutally tortured. Documents, letters, newspapers, and books were burned; school buildings and libraries were destroyed. It seemed that education was a target due to the fear of gaining, holding, and using knowledge. Cambodia was to become a communist agrarian fantasyland, where one was to work in the fields for the good of the entire country. However, it was to come at the expense of human lives, liberty, and intellectualism. The events of Pol Pot, the Killing Fields, and the Khmer Rouge wiped out the basic framework of education throughout the entire country; 75% of the teaching force was brutally killed, along with 96% of higher education students and 67% of primary and secondary

students. Primary education was the first element to be given attention in the new era. UNICEF and the World Bank took the initiative to fund the Education Quality Improvement Project, and teachers began training at the Faculty of Pedagogy in Phnom Penh. Other projects were implemented throughout the country. In the 1980's, Vietnam was already beginning to update the educational system in Cambodia with aid projects. Russia also rallied in this effort; both countries gave considerably to re-training and re-staffing the teachers who had been lost. The Vietnamese had already begun training teachers and professors with the advent of 18 primary and 6 secondary training colleges throughout Cambodia; by 1988 thousands of Cambodians had graduated from these courses. At this point, the Cambodians could teach in the indigenous language of Khmer. During the 1980's, the Vietnamese taught French to the Cambodians, eventually taking in new students who knew no French. When the Ministry of Education adopted the flexible language policy, Cambodian students began learning many languages: Russian, Vietnamese, French, and other Eastern bloc countries in order to re-build the country.

Since the 1980's, the educational system in Cambodia has taken on the western standard of 6-3-3; that is, 6 years of primary, 3 years of junior high school, 3 years of high school, although many students did not (and still do not) progress beyond 6 years of primary. In order to gain employment and to create a stable and capable labor force, literacy and educational attainment are of utmost importance. Although ample long-term data is few and far between in Cambodia, recent data regarding education rates has been data compiled by UNESCO, which found in surveys from 2005-06 that 84% of primary school students attended school, where 28% of secondary age attended school there (UNESCO, 2008). Fortunately, the rate has grown. Data was also found in the Cambodian Socioeconomic Surveys (CSES, 2010). Adult literacy rates (of those between age 15 and 64 years) have risen in Cambodia since 1980 at 74% to 85% in 2008 for males, 78% for females, but are still low compared to other countries as Table 2.16 shows. While a notable increase, other ASEAN countries in the same Indochina area, such as Thailand (94%), Vietnam (94%) and Myanmar (90%) have attained quite higher literacy rates during the same period. Only Lao at 77% has slightly lower rates than Cambodia. Table 2.16 contains a comparison of adult literacy rates by gender in ASEAN countries up to the latest measured year.

Table 2.16 Adult Literacy Rate per ASEAN Country, Latest Measured Year

Country	Year	Both Sexes(%)	Male only(%)	Female only(%)
Cambodia	2008	77.5	85.1	70.9
Brunei	2007	94.9	96.5	93.1
Indonesia	2006	92.0	95.2	88.8
Lao	2005	77.4	82.5	72.7
Malaysia	2007	91.9	94.2	89.6
Myanmar	2004	89.9	95.6	93.2
Singapore	2007	94.4	97.3	91.6
Philippines	2007	93.4	93.1	93.7
Thailand	2007	94.1	95.9	92.6
Vietnam	2007	93.5	96.2	90.7

Source: Report 7, Literacy and Educational Attainment, Cambodia Ministry of Planning, 2010.

This data are important because many researchers examine the connection between literacy and employment. Because of the importance of education, one would think that literate persons should be able to find work more easily than illiterate. However, this is not always true in Cambodia, where people who are capable and achievers can sometimes find work even if they are illiterate. It can be said, however, that the services sector had more literate labor force at 552,523 in 2008 for both sexes, than did the illiterate at 66,038 people in the same year (Ministry of Planning, 2008). The educational rate in Cambodia is increasing recently but still high; almost 18% of the labor force has none or only some education. As of 2010, 26% have finished primary school, and 19% have completed lower and upper secondary (junior and senior high school), while 2% have post-secondary (university) education rates (Ministry of Planning, 2010). As of 2010, educational aspects have improved greatly; however, there are still many children who receive no basic education whatsoever. In fact, the CSES reveals that the attendance rates for primary school were only 81% in 2010 (CSES, 2010). There is much disparity in different areas of Cambodia with regards to education rate, as different places relate different statistical data, and many places lack significant data altogether. This is due to insufficient funding, weak management, and a lack of clarity for educational goals. The World Bank, the U.S. Embassy and other organizations currently and in the past have been offering programs to offset the educational imbalance, but more work must be accomplished.

2.4.2 The Introduction of English Education [14]

After Pol Pot, the country took on a western ideology for general teaching, and with a plethora of aid, new schools were poised to open; however, there was no policy on which language to use. Since Cambodia was under occupation by France until independence, French was an obvious choice; however, donor country involvement also prompted the need to introduce English. With the advent of foreign assistance projects such as the Cambodian Secondary English Teaching Project (CAMSET) funded by the British government (and others), Education growth along with English and French language usage growth in schools occurred concurrently.

[14] Some material in the next 2 sub-sections was previously published in Morrow (2014), pages 110-111.

In secondary schools, Cambodia solidified the 1989 decision to offer English and French as foreign languages in 1996. Grades 7, 8, and 9 study English or French 5 hours per week; the students are encouraged to continue studying the same language four hours each week in high school. High schools saw education in general and language education increase as government officials became aware of the need to communicate with western NGO's effectively during aid assistance. As Cambodia moved into a market economy, the government invited Australian lecturers to further train new teachers. In turn, Cambodian graduates were involved in managing educational projects, and many were sent to Australia in for certificate and Master's courses. Australia was quite active in the training of secondary education; other implementations included the Catholic Mission Society of America (a consortium of aid agencies), and the British Voluntary Service Overseas (VSO), who trained Cambodians as English language teachers. Both the French Liberte and the Centre Cultural Francaise in Phnom Penh offered French teacher training programs since the 1980's in secondary education. Another program, the U.S. Government's ACCESS Micro-scholarship Program has implemented its Micro-scholarship Program in many developing countries around the world. Its branch in Phnom Penh offers a two-year English language program to minority high school students of 14-18 years in age. During immersion-style classes English is taught in a friendly, open environment focusing on the four skills of English: reading, writing, listening, and speaking. English is taught by trained Cambodian English teachers in local English schools in various areas there, and gives students the opportunity to use English both inside and outside the classroom. The program was instituted to give students the chance to increase their English language skills so that they can ultimately find appropriate jobs and help support their families (see US Embassy Cambodia website).

Universities in Cambodia also began been offering English or French as a major.There was no definition of a foreign language. It was thought that Khmer should be the language of education, but assistance money from donor countries has kept the need for western language alive. Angkor University, for example, has a foreign language department and a Foreign Languages Major in which one can major in English, French, Korean, and Japanese. In The Royal University of Phnom Penh (RUPP), all classes were taught in English, and all materials are mainly donated from western countries, many being English materials, which are used as they are in the classroom in English due to the lack of qualified people to translate them into the Khmer language after the killing of many intellectuals during the Khmer Rouge regime. More materials are being translated into Khmer now, but English is still used widely (author’s interview with Kim Sovan Kiry, 2008). English has been spreading in Cambodia because of economic need for tourism and trade. Cambodians themselves feel the number one reason for developing their English ability is for employment and jobs. English, French and other languages are taught out of necessity largely due to the fact that hundreds of foreign aid agencies and foreign companies have established themselves in Cambodia, and nearly all the connected jobs require language ability, especially English (Clayton 2006). One problem continues to be finding enough qualified English teachers to teach English in junior high schools, high schools,

and universities, especially those in rural Cambodia. Sai Gaet, a Cambodian government trainee living in Kumamoto, Japan, during 2006 to 2007 related to the author that he began learning English in secondary school in 1993, but stopped after one year to study for school examinations. He began learning again by himself with a paid teacher and self-purchased materials in 2002, but acknowledged that it was difficult to study English due to a lack of qualified English teachers. He stated that Cambodians now enjoy learning English in both junior and senior high schools five and four hours per week, for a period of three years each. Sai also related that small villages have little or no access to English language instruction due to the lack of teachers, the distances between schools, and the haphazard fashion of school administration. As a result, English teaching depends mostly on the particular school (author's interview with Sai Gaet, 2007). Recently, students are free to choose tertiary education institutions, and now, many apply to the most popular institutions in the country as Table 2.17 exemplifies.

Table 2.17 Top 25 Universities in Cambodia, 2011

Rank	University Name	Location
1.	Royal University of Phnom Penh	Phnom Penh
2.	Western University	Phnom Penh
3.	Institute of Technology of Cambodia	Phnom Penh
4.	Cambodian Mekong University	Phnom Penh
5.	Build Bright University	Phnom Penh, Siem Reap
6.	Pannasastra University of Cambodia	Phnom Penh
7.	International University of Cambodia	Phnom Penh
8.	The University of Cambodia	Phnom Penh
9.	Royal University of Law and Economics	Phnom Penh
10.	Royal University of Agriculture	Phnom Penh
11.	Norton University	Phnom Penh
12.	Chamroeun University	Phnom Penh
13.	Asia Euro University	Phnom Penh
14.	Phnom Penh International University	Phnom Penh
15.	National University of Managements	Phnom Penh
16.	Limkokwing University of Creative Technology	Phnom Penh
17.	IIC University of Technology	Phnom Penh
18.	Vanda Institute	Phnom Penh
19.	University of Management and Economics	Battambang
20.	Svay Rieng University	Khum Chok
21.	Cambodian University for Specialties	Phnom Penh
22.	Zaman University	Phnom Penh
23.	University of Puthistrasa	Phnom Penh
24.	Life University	Sihanoukville
25.	Angkor University	Siem Reap

Source: Adapted by the author from 4international universities website, accessed May 14, 2011, http://www.4icu.org/kh.

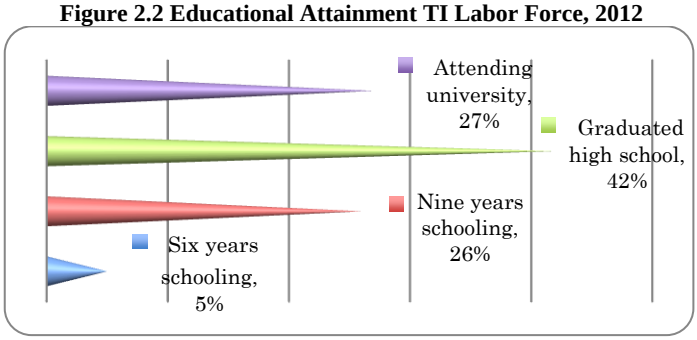
2.4.3 Tertiary English Education

Universities in Cambodia have also been offering English and other languages as a major, although there is not a clear-cut definition of foreign languages in tertiary education. It was felt by many that Khmer should be the language of education, although assistance money from donor countries has kept the need for teaching western languages intact. Of late, English language has become the language of choice for students in universities. In fact, the RUPP Institute of Foreign Languages, the English Department offers 2 main programs: the Bachelor of Education in Teaching

English as a Foreign Language (TEFL), and the Bachelor of Arts in English for World Skills. The aim of the BEd in TEFL is the development of trainees' skills in teaching English as a Foreign Language (EFL) at the secondary school level, while the BA in English for World Skills prepares students' English related skills for work and beyond. RUPP also has lately instituted a tourism department where all classes are taught and learned in English. The purpose of this department is to further train future TI employees to become better employees in communicating with guests in professional hospitality situations. This, of course, requires them to learn professional communication ability in English. Although we can see that English has become important in education in Cambodia especially in TI, RUPP is a good example of English education in the tertiary level (Royal University of Phnom Penh, 2012).

Many businesses in many sectors know the importance of communication ability through English. In fact, Sandford (2002) has found that managers in U.S. businesses require English communication for employees because they can learn more quickly. The same holds true for TI; employees without English ability cannot obtain employment, nor can they receive higher salaries or chances for employment. In the literature review we found studies that directly link English ability with better jobs and higher salaries. This being the case, the author tried to fill this gap by gathering data in SR, assessing English ability of employees, and empirically testing the hypothesis that English ability can affect better employment and higher salaries through statistical analysis. The author's study will be fully focused on in Chapter 4; results from the author's 2012 survey show that education is extremely important in TI recently (Fig. 2.2). In fact, 42% of all respondents have graduated high school, and 27% are currently attending university, a great change from earlier economic life in Cambodia. The author believes this is perhaps this is unique to TI businesses, as TI employees need education to get good jobs, especially in hotels and travel agencies.

Figure 2.2 Educational Attainment TI Labor Force, 2012



Source: Compiled from survey data, 2012.

Conclusion

Obviously, both intercultural communication and language ability are of great importance to anyone entering a job market such as that found in Siem Reap and Angkor Wat. Due to the popularity of the attraction, millions of tourists visit the area each year, spending millions of dollars on hotel

rooms, food, drinks, souvenirs, and sightseeing. In this chapter we have seen that English ability is of incredible importance in international aid agencies, trade, and TI. It will continue to be useful in TI long into the future, and will lend itself to being a vehicle to better jobs, higher salaries, and higher standards of living. Just how much English influences jobs and income is a delicate and controversial issue. However, the author has made inroads into approaching a definite answer to this question. The next chapter contains the author's study on generating employment and income opportunities through English in TI among SR TI-related businesses, during survey years 2008, 2010, 2012, and 2013.

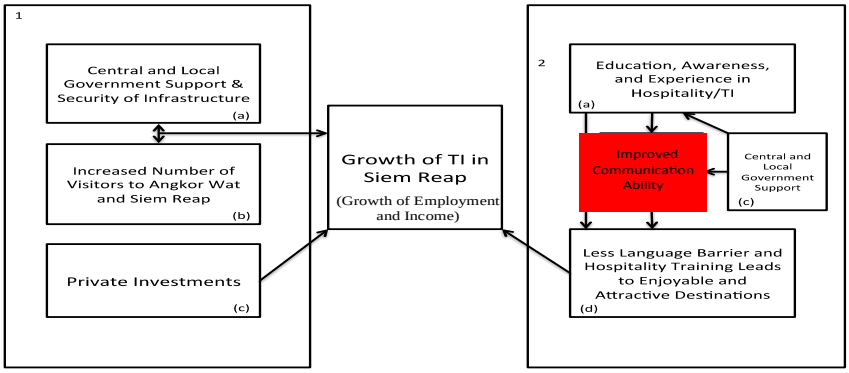
Chapter 3. Procuring Better Employment and Income: The Role of English Communication Ability

Introduction

During travel experience in SR in the year 2000, the author found that English communication was difficult for guesthouse staff, restaurant employees, and tour guides and realized that English and international communication could and should be vastly improved. It was the author's idea that better English ability, more years of English education, more hours of English study in school, and money for studying English each month could lead to better employment and higher incomes. The author decided to test this hypothesis empirically by traveling to SR and spending time there to obtain a firsthand view of the city and the tourist and employee situation. The author presumed that English education has contributed to better employment and higher per capita income, but to what degree was unknown. The author felt that this idea lent itself to more research, so a series of surveys to take place within the TI of SR was planned from a preliminary survey in 2008 to 3 additional surveys in 2010, 2012, and 2013. It was felt at the time that continuous data collection during 5 years was appropriate to be able to obtain accurate and necessary data to verify the author's assumption that English proficiency and education contributed to better employment and more stable incomes. To approach the study, the author drafted questionnaires with the goal of obtaining background information as well as to assess TI employees' actual English proficiency levels because this type of information severely lacked in Cambodia. The author did not approach this study from the standpoint that English proficiency itself is causal to the increase in employment and income in TI or growth of TI, but rather from the standpoint that a trained and sophisticated labor supply, those with hospitality training and excellent communication skills, can provide travelers with enjoyable and interesting experiences, which can help create a thriving tourist destination. The increased international traveler activity will create a yet more enjoyable, bustling place to visit, which will in turn increase growth from TI, thereby providing TI employees with higher incomes and better employment situations. However, through this situation indeed employees' individual incomes, along with other variables including total years of schooling, years of English education, hours of English education, money spent on English per month, and English proficiency level, can lead to even better employment and income situations for employees individually through the increased TI activity. In this way, English proficiency and excellent communication and hospitality skills are the building blocks of an enjoyable and interesting tourist destination leading to the growth of TI. English proficiency should not be a bi-product of increased TI growth, but should enable the visitor to fully and enjoyably experience their travels. During research the author developed clear vision of the causality of English education and ability. The causation could be considered two-way to a degree; employees of course learn English while working at their jobs. However, during the survey experience the author found much evidence in the employees' responses showing the English was important in obtaining jobs in the first place. Also, as for causality of English it can be said the years

and hours of English education, English expenditure, and usage of English per month do not influence income directly, but all lead to English communication ability, which influences income. For example, total years of English education multiplied by hours of English study, expenditure for English study multiplied by time period in years, and days per month of English used multiplied by time period in months all lead to English communication ability level, which influences income directly. This is a very succinct method of examining the causality of English, and is true in the developed world. However, in Cambodia much data is lacking and there are few opportunities to study and further education. As a result, many people do not study continually, and few have large expenditure to study English over years. Hotels and travel agencies have employee lists and keep data, but smaller businesses do not. Schools as well do not have student data, so employees' years of study is difficult to find concretely. For this reason, perhaps the simplest way to approach the question of causality is to use each variable of English education separately.

Figure 3.1 Factors Leading to Growth of TI in Siem Reap



Source: Author's Image Diagram, 2010, 2012, and 2013.

In Figure 3.1, conventionally, there are mainly 3 factors that contribute to growth of TI in Siem Reap. One factor is the support from central and local governments (Box 1, a), which create a peaceful and safe infrastructure for travelers; the other is World Heritage Site, Angkor Wat (Box 1, b), which has elevated TI growth around Siem Reap remarkably. In addition to these factors, private investments in such businesses as hotels and restaurants have also made a contribution (Box 1, c). Although these factors are extremely important, it is the author's position that these factors alone cannot improve growth. Effective and notable destinations require TI employees to have education, awareness, and experience within their roles in TI (Box 2, a). In addition, employee communication

ability is also of importance in TI (Box 2, red), so visitors can expect to have interesting and knowledgeable experiences, leading to less language barriers. This aspect, in turn, makes face-to-face interaction with guests more thorough and creates interesting and enjoyable destinations (Box 2, d). Therefore, to have a fully functioning and sustainable tourism destination, both Boxes 1 and 2 should work in conjunction to create interesting and enjoyable places capable of attracting new visitors yearly. Without communication ability, employees' educations, experiences, and awareness cannot be translated into positive experiences for customers. Box 2 also provides an educated and well-trained labor supply. It goes without saying that Box 1 is important economically. However, because English communication is within the author's background, Box 2 only became the initial focus for this study.

In addition to the above reasons, Box 2 contains central and local governmental support (Box 2, c). Although support exists within the maintenance aspect of Angkor Wat, in a perfect world government would also support education, awareness, and hospitality training, as well as language communication training. The author has found there to be less governmental support in this area in Siem Reap. Central as well as local government support is important, as are tourist arrivals, but employees' education, experience, awareness, and communication ability are also extremely important. No TI in any country can consist only of Box 1. It must be said that all languages are important. Since the author's background is in English language education, this research focuses on the English language only, although the same research could be conducted with any language that is employed for similar reasons in TI. Enjoyable and safe attractions give the opportunity for entrepreneurs with ability and experience, as well as language, to establish and operate businesses such as souvenir shops, restaurants, and guesthouses. When people with education, experience, awareness, and language ability create new businesses, this provides not only a pure labor supply, but also an entrepreneur supply for the TI in SR.

The author believes it was necessary to make many statistical calculations, including coefficient of variation, because a thesis requires proof to give strength to a hypothesis, and in this case, numerical explanation gives more proof of the verification. The author wanted to explain income along with total years of schooling, years of English education, hours of English study, expenditure for English study, and English proficiency, so for this reason several statistical calculations were used for simple statistical analysis and for correlations. Statistical calculation allowed the linkage between English background and employment and income because it was conducted numerically. This was a pioneer study, and of course, pioneer studies have weak points. However, these findings can help pave the way for more accurate research in the future.

To verify the background of the TI thoroughly, the author's goal was to statistically examine the data after surveys using certain statistical measures to analyze numerically to see English usage of employees. This kind of data analysis leads to strong verification of data. SR was chosen as the survey locale for its proximity to Angkor Wat, a typical culturally significant tourist site. As such, it attracts visitors from around the world annually, many of them native English speakers who shop in local stores

and stay in local guesthouses and hotels. In addition, Cambodia as a developing country has very little data on English education, English proficiency, test scores, and the like. The author felt that this endeavor was a timely opportunity to gather lacking background data, to obtain English proficiency data, and to examine the possibility of the communication needs of TI employees in SR. In order to make the survey experience standardized, the author decided to focus on 5 typical TI related businesses in SR. This would enable the author to collect data over several years to examine the changes over time for a certain business. These businesses were as follows: 1) souvenir shops, 2) restaurants, 3) guesthouses, 4) hotels, and 5) travel agencies. To prepare the research instruments and the approach accurately, the author planned to first conducted a preliminary survey within these 5 TI related businesses that offer services to foreign travelers often to obtain a preview of the TI situation in downtown SR. This made it possible to examine not only the socioeconomic and educational background of the TI employees, but also to administer an effective method of assessing English language proficiency. The experience of the author, in addition to the standardization of the TI businesses and the English proficiency assessment system, makes it applicable to any TI related survey situation in any developing country in the future. The author hopes that other researchers utilize this system in the future to collect similar data in other developing countries, which could be used to verify the importance of English proficiency to the situation in developing countries with TI possibilities. This data could also be used to show governments that through transparency, GDP through TI could be slated to the appropriate agencies and be used to help people appropriately.

As stated earlier, the author first conducted a preliminary survey to understand the situation in TI businesses in SR. The purpose of this endeavor was to generally survey employees in the 5 businesses as to English education years, hours, expenditure, and English proficiency, in addition to general socioeconomic data such as general schooling years, hours and years on the job, age, gender, living situation, family, marital status, and income. This was done through creating a relevant and important questionnaire to be used through the completion of surveys in SR city over 5 years. All the surveys were conducted with the assistance of students with advanced English proficiency levels from Angkor University, Siem Reap, Cambodia under the auspices of the Angkor University Research Center for Economic Development (AURCED). Without their committed support these surveys could not have been conducted. The four survey situations, beginning with the preliminary survey, will be shared following. Section 1 introduces the preliminary survey of 2008. Section 2 offers the surveys of 2010, 2012, and 2013. This section includes the survey location, dates, and samples. Section 3 contains general socioeconomic features of TI in Siem Reap, and includes classification and general demographics of the businesses. Section 4 examines methods of analysis, and section 5 gives statistical results of the businesses under study. Section 6 contains a discussion of findings, and section 7 concludes.

3.1 Preliminary Survey, 2008

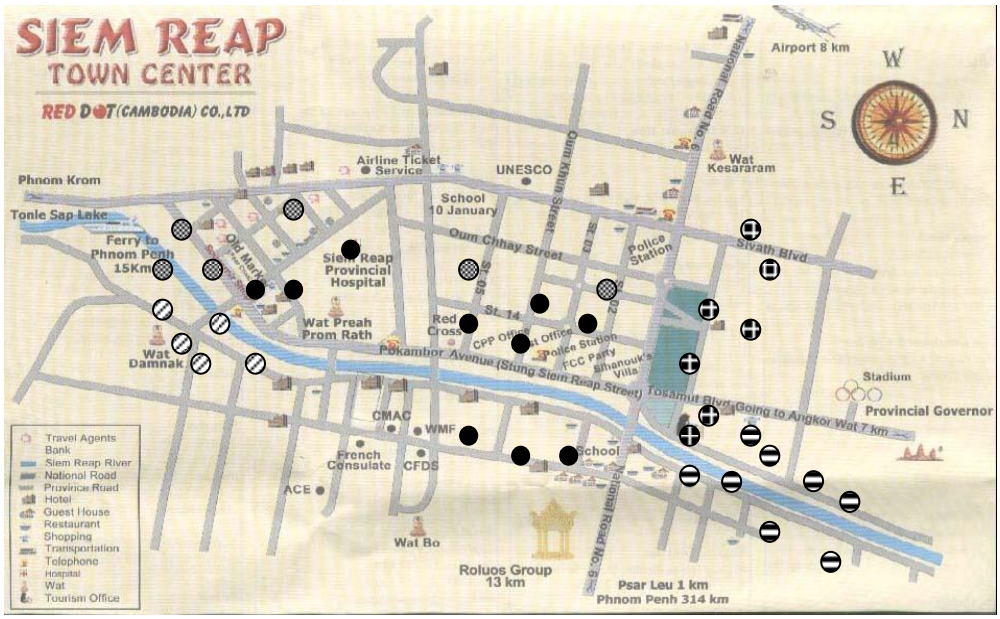
In December 2008, the author and research team conducted the preliminary survey in Siem Reap to examine their income opportunities with English. The preliminary survey in 2008 was conducted with the help of six English language students with advanced English ability from Angkor University, Siem Reap.

This questionnaire contained 30 questions, the first ten being general questions, and the last twenty were industry specific question such as: was English an important factor in getting your job; did you have an increase in salary with English; and the frequency of English native speaker visits to the establishment. The complete questionnaire for the preliminary survey can be found in Appendix A.

3.1.1 Preliminary Survey Dates, Sample, and Location

The sample size was 200 members of the tourist industry labor force in five tourist industries: hotels, guesthouses, restaurants, souvenir shops, and travel agencies. The survey was conducted in Siem Reap City, Cambodia, from December 25 - December 27, 2008. The subjects were interviewed directly at their places of work after receiving permission from the establishment. Souvenir shops were located in Old Market (Pokambor Avenue), restaurants were located on Pub Street and Pub Street Alley, guesthouses were located between Sivath Blvd. and Pokambor Avenue, and on National Road No. 6, hotels were located on Pokambor Avenue, on Tosamut Blvd., and National Road 6, and travel agencies were located on Achemean Street, Oum Khun Street, Pokambor Avenue (see Fig. 3.2).

Figure 3.2 Map of Survey Areas of Siem Reap City, 2008



Source: Thai flying club, 2008.

Note: ● Restaurants ⊛ Travel/Tour Guide Agencies ⊘ Souvenir Shops

⊜ Guest Houses ⊖ Hotels

3.1.2 Preliminary Sample Breakdown

The sample sizes for all the surveys were calculated based on number of shops, and not on population because data on total working population for TI businesses in SR could not be found. Upon calculation for the total number of shops in SR, the sample was broken down thusly: souvenir shops, 60; restaurants, 40; guesthouses, 40; hotels, 40; travel agencies, 20. Moreover, the sample size and type of establishment were determined by: 1) accessibility, 2) number amount of establishments, and 3) hours of operation.

3.1.3 Socioeconomic Features of 2008 TI Businesses

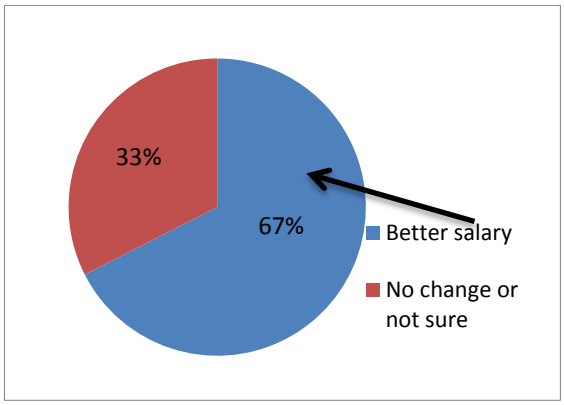
Because this was a preliminary survey, the author only wanted to gather general information of the TI of SR. After such broad information was known, it made it possible to create a more specific questionnaire aimed at gathering more granular and education-specific data, which related more directly to the goals of the author. General results show that 102 members of the tourist industry labor force were male, and ninety-eight were female (Table 3.1). Of the total TI employees, 150 were age 20-29. Other significant results show that 67.5% of subjects reported that an increase in English has made income higher (Fig. 3.3). Of the total, 94% stated that English was an important factor in getting jobs (Fig. 3.4). In addition, 58% of respondents stated that native English speakers visited the establishment every day (Fig. 3.5)

Table 3.1 General Demographics, 2008

Item		Particulars
Age	10-19	39
	20-29	150
	30-39	9
	40 +	2
Total		***200***
Sex	Male	102
	Female	98
Total		***200***
Province	Siem Reap	87
	Phnom Pn	23
	Other	90
Total		***200***
Marital	Married	42
	Single	158
Total		***200***
Children	Yes	31
	No	169
Total		***200***
Living	Alone	67
	W/Family	133
	Dormitory	0
	Other	0
Total		***200***
Schooling (Completed)	Primary	34
	Secondary	77
	High School	89
	University	0
Total		***200***

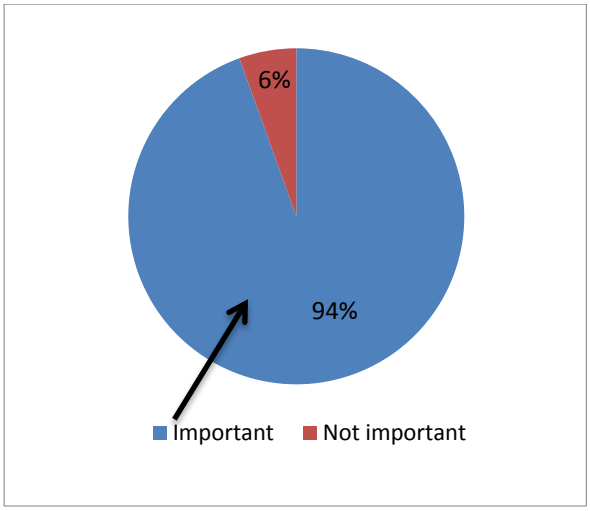
Source: Compiled using survey data, 2008.

Fig.3.3 Increase of salary with English



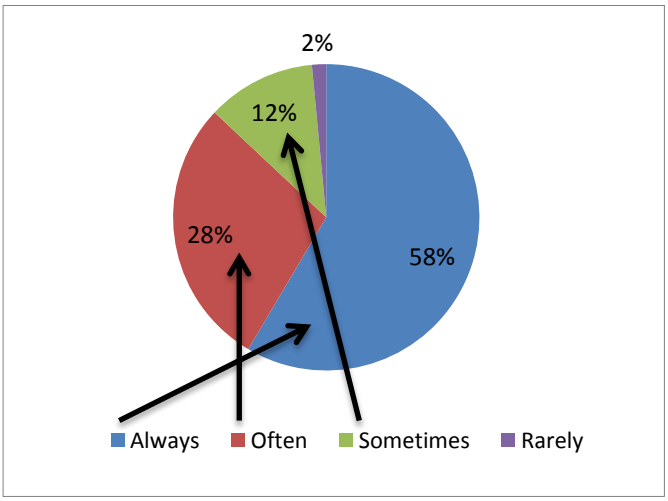
Source: Compiled using survey data, 2008.

Fig. 3.4 English Ability and Jobs



Source: Compiled using survey data, 2008.

Fig. 3.5 Frequency of Native English Speaker Visits



Source: Compiled using survey data, 2008.

On average, tourist industry labor force received $US50-150 per month. The highest paying jobs were in guesthouses and hotels, with income at $US100-300 per month. This positively shows that English can assist in generating employment in the tourist industry. Although there was not enough time or capacity to verify other factors, it is obvious that English contributed to generation of employment. However, we were only able to verify this aspect for Siem Reap tourist related businesses. By using a sample of 200 in 2008, results could show that increase in income was positively related to English ability. As shown, many tourists are from English speaking countries. Without English ability, young Cambodians cannot obtain jobs, and therefore have less chance at receiving a stable monthly income. More research in this area needs to be completed. The survey was basic, and the first of many to come.

English has been important in the tourist industry in Cambodia since the early 1990's. However, very little training in specific English skills has been in place; data on English proficiency and other socioeconomic background data lacked. This is precisely why the author wished to conduct a continuous study on generating employment and income through English in TI in SR over 5 years. The author revised the survey from 2008 to proceed with the subsequent surveys. In the future, policy makers should gather more data and make English language training available and affordable to Cambodians working in tourism. It may prove useful to continue to follow English in tourism in Cambodia in the future. This would enable researchers to understand English and employment generation on a widespread basis. Based on this assumption, the author redesigned, rewrote, and revised the questionnaire to be more useful in 2010. The following section introduces the surveys of 2010, 2012, and 2013.

3.2 Introduction to the Surveys of 2010, 2012, and 2013[15]

The author conducted a preliminary survey in 2008 as mentioned above and 3 surveys in

[15] Some material in this section was previously published in Lwin and Morrow (2013), pages 110-122, and in Morrow (2014), pages 120-128.

2010, 2012, and 2013 within the Siem Reap area specifically for TI employees in Siem Reap, Cambodia to examine the role of human capital attainments in English with regards to their employment situations and incomes. Siem Reap was chosen as the survey locale for its proximity to Angkor Wat, a typical cultural tourism destination. As such, it attracts visitors from around the world annually, and many of them are from inner circle countries and use native English or EIL in travel. During earlier travel experience there in the early part of 2000's, the author found that English communication was difficult for tour guides and realized that this could be vastly improved. In addition, Cambodia as a developing country has very little data on English education and its contribution to per capita income, which lends itself to more research in the future. In 2012 the author once again visited Siem Reap as planned to further investigate the TI of Siem Reap, but this time to more deeply examine English proficiency level and correlate it with income and other variables. The same 5 businesses were used as in the preliminary and 2010 surveys, and the questionnaire was written to be more in-line with the author's goals in order to pinpoint the necessary information for statistically examining the data within the TI of SR. In this manner the author planned to examine each business in a time-series format in order to find relationships among businesses and between years. The author made certain assumptions at the outset of this study, which were verified after data collection and analysis. Those were: 1) that English level would be higher in certain higher profile businesses, 2) that English education would benefit certain businesses more than others, but that English education was extremely important nonetheless to every employee, 3) that spending money on English each month also strengthened employment opportunities and possibility for earning higher incomes. These assumptions will be examined in great detail upcoming in the analysis of each survey.

After the preliminary survey in 2008 was completed, and the results analyzed, the author visited Siem Reap once again in 2010 to conduct a more thorough survey to gather basic data and get a better idea of the TI business environment of Siem Reap City. The first survey was completed again with the assistance of five English-speaking students with advanced English proficiency from the Angkor University Research Center for Economic Development (AURCED), under the auspices of Angkor University, which also helped in interviews and translation to Khmer language where necessary. In 2010, the author redesigned the survey questionnaire based on the previous survey from 2008, and adapted it to be able to find more accurate information to support author's goals. In 2012 the questionnaire was revised to get more detailed responses and to obtain even more accurate information. Once again, the questionnaire was revised in 2013 to conduct the most thorough survey and to gather information that was before not possible for other researchers to obtain due to time constraints, financing problems, the language barrier, and national safety. The purpose of the new questionnaire was to conduct more thorough research and to gather more data on income, expenditure, general education, and English education background and also to measure the English language proficiency of the tourist industry labor force even more thoroughly. Angkor University Research Center for Economic Development (AURCED) provided much pre-survey data to assist in all the survey endeavors. Without the gracious support from AURCED,

the survey situations would have been extremely difficult if not impossible. The author and research team were able to obtain preliminary basic vital information on tourist businesses in Siem Reap in advance through AURCED, such as the total number of businesses, the number of some licensed and unlicensed businesses, and the approximate locations. Unfortunately from year to year, data on total working population was unavailable. This forced us to use total number of shops rather than population to calculate survey samples. Nevertheless, the questionnaires were finalized according to the author's research goals to be able to arrive at more precise conclusions, year by year. The questionnaires focused on background data such as marital status and age, years of education, years of English study, frequency of English speaker visits, need with English, English proficiency level and income, and monthly general expenditure with English study expenditure. One major goal of the author was to measure English proficiency by giving face-to-face assessment tests to determine English proficiency level, rather than to rely on just self-reporting. In order to make a discernible English proficiency test, an assessment from the Common European Framework of Reference for Languages, CEFR (Council of Europe, 2001), which is widely used to judge the English proficiency of European citizens, was adapted to form a new assessment by the author during the 2010, 2012, and 2013 surveys. This assessment was used in all the subsequent English proficiency assessments during the remaining surveys. A complete table containing the original CEFR assessment and the author's English level and the method of assessment was introduced in chapter 1 (see Tables 1.1 and 1.2).

3.2.1 Survey Method, Dates, Location, Sample, and Limitations

The 2010, 2012, and 2013 survey outcomes will be shared at this point. As previously stated, all the surveys were conducted with the assistance of the Angkor University Research Center for Economic Development (AURCED). They were all conducted entirely in Siem Reap City after carefully calculating and randomly choosing the businesses and subjects. Again, the author used modified and revised questionnaires from previous surveys to conduct face-to-face interviews of our subjects for socioeconomic data, educational background, English education background, employment history, as well as to gather assessments of English proficiency for each respondent. This section contains information on the survey location, survey date and subjects, sample selection, and methodology of each survey year. This section also includes information on writing the questionnaires, conducting the surveys, and limitations with the survey experiences.

3.2.2 Methods

The surveys were conducted with the help of English-speaking students with advanced English proficiency from Angkor University in Siem Reap in each survey year; in 2008 6 students assisted, in 2010 6 students assisted, in 2012 5 students assisted, and in 2013 5 students also assisted. To conduct our research, we employed simple stratified random surveys in a face-to-face interview format. In all survey years, the assistant students were to speak 100% in English as much as possible, but information was translated into Khmer for the respondents when problems arose, based on an explanation provided by the author in a pre-survey meeting.

The sample strata, different in each survey year, were: 1) 184 TI employees in 2010; 2) 262 TI employees in 2012; and 3) 292 TI employees in 2013 within 5 obvious tourist industries souvenir shops; restaurants; guesthouses; hotels; and travel agencies. In addition, an extra business, tuk-tuks, or motorized rickshaws, were included in 2013 only. The reason for only including tuk-tuks only in 2013 was that the businesses are not highly communicative, do not require specialized education, and many are small, one-man operations. All the businesses in the surveys were chosen because they were obvious TI-related businesses, and the author wanted to complete a continuous study over 5 years, so it was determined that using the same businesses year by year was the most appropriate. The questionnaires contained questions such as gender, living situation, marital status, years of schooling, years of English education, frequency of English speaking visitors per month, and rate of English usage per month. In addition, English proficiency was assessed for reach respondent. Before this survey experience, the method of acquiring English language proficiency was through census data or through self-reporting English proficiency is not accurate from the viewpoint of actual English communicative proficiency, as explained in Chapter 1. For this reason, to measure English proficiency, the author designed a numerical assessment, which was loosely based on the Common European Framework of References for Languages (CEFR) (Table 1.1), as explained in chapter 1. To reiterate, the CEFR measures English on a six level scale, is adaptable to any language (Council of Europe, 2001), and also creates more accuracy than the self-reporting levels of *only English, very well, well, not well,* or *not at all* offers. The author's measurement system was clearly different from that of the CEFR. The CEFR contains six easily defined levels, which the author emulated, but adapted it to be more useful in the context of Cambodia where many people have little or no English ability. The author included assessment levels from 5 (greatest ability) to 0 (no ability) in order to assess in a quantifiable fashion, and in this way, English proficiency was easily categorized and easy to correlate and analyze numerically (Table 1.2). In this manner, it is a very convenient way to explain English proficiency and to tie it together with types of jobs and employment seeking. This method is relevant to be used in other developing countries because it accounts for those with little or no English ability and is numeric and can be used in correlation tests.

To gather English proficiency data, each student was provided with a hand-held IC recorder by the author. Short self-introductions by the TI employees were recorded and then analyzed by the author and fellow linguists after the surveys to obtain an accurate English proficiency assessment. These assessment values were used in statistical calculations for the research. The assessment was completed while listening to the self-introductions and also matching them to the pertinent levels on the assessment system while listening to each recorded self-introduction (see Tables 1.1 and 1.2). For example, those who could only communicate in simple words used every day would be judged an English level of 1 (low beginner). In addition, the assistants from Angkor University had excellent English ability, and were able to judge the English ability of the employees during the interviews. They scored the respondents at this time. The levels were then double checked by the evaluators for more accuracy during post-interview analysis.

3.2.3 Survey Dates and Location

The 2010 survey was conducted in Siem Reap from August 27-31, 2010; the 2012 survey was conducted from March 23-25, 2012; and the 2013 survey was completed from March 15-18, 2013 in representative tourism businesses of 5 types stated earlier: souvenir shops, guesthouses, restaurants, hotels, and travel agencies. The interviewees were random TI employees who worked in these businesses. Again, the reason for the choice of these five businesses was that they have been obvious representative businesses of tourism and are involved with tourists on a day-to-day basis. Fortunately, regulations are not strict in Cambodia. Permission to interview was received relatively easily upon entering the establishment by inquiring with the business manager or owner, and the subjects were interviewed randomly. Complete questionnaires from each survey year can be found in Appendix B. The survey in 2010 was conducted in the main tourist area of Siem Reap City, from the Old Market area on Pokamabor Avenue, which extended to Oum Chhay Street, Sivath Blvd., and National Road Number 6. Souvenir shops were located in Old Market which runs along Pokambor Avenue, restaurants were located on Pub Street and Pub Street Alley, guesthouses were located on street two, three, Oum Khun Street and near Wat Bo Road, hotels were located on National Road 6 and Angkor Wat Road, and travel agencies were located on Street five, Achemean Street, and Sivatha Boulevard (Fig. 4.2). The 2012 survey areas follow. Souvenir shops were located in Old Market only, restaurants were located on Pub Street and Pub Street Alley, guesthouses were located on Street 2, Street 3, Oum Khun Street, and around Wat Bo Road. Hotels were located on National Road 6, and Angkor Wat Road. Travel and tour guide agencies were located on Oum Khun Street and Street 5, and Sivath Boulevard (see Fig. 3.5). The 2013 survey was conducted in the same areas: Souvenir shops were located in Old Market only, restaurants were located on Pub Street and Pub Street Alley, guesthouses were located on Street 2, Street 3, Oum Khun Street, and around Wat Bo Road. Hotels were located on National Road 6, and Angkor Wat Road. Travel and tour guide agencies were located on Oum Khun Street and Street 5, and Sivath Boulevard. Tuk-tuks, which appeared only in the 2013 survey were mobile, and moved around Old Market area, Pub Street, National Road 6, and Wat Bo Road (Fig. 3.6). Because of this reason, they are not included in the map.

Figure 3.6 Map of Siem Reap City, 2010, 2012, and 2013

Source: Created using survey data, 2010, 2012, and 2013. Tuk-tuks are located throughout the city.

3.2.4 Samples

The sample sizes were determined for number of shops only rather than numbers of workers or amount of capital. The reason the sample size is different for each business is that we calculated using a different confidence interval for each sample business, at a 95% confidence level for each survey year. The same shop population was used in 2010 and 2012 as the no new shops increased. However, in 2013, the shop population increased so new samples were calculated based on the new number of shops (see Table 3.2).

Table 3.2 Samples, 2010, 2012, 2013

Establishment	Total No. of shops (2010,12)	Sample Size 2010	Sample Size 2012	Total No. of Shops (2013)	Sample Size 2013
Souvenir shops	300 (after tabulation)	74	60	320	60
Restaurants	120	34	48	150	57
Guest houses	227 (3,000 rooms)	21	55	252	34
Hotels	120 (8,723 rooms)	38	45	125	49
Travel Agencies	142	17	54	150	23
Tuk-tuks (2013 only)	N/A	N/A	N/A	500	69
Total		184	262		292

Source: Department of Tourism, Siem Reap. Adapted by the author, 2010.

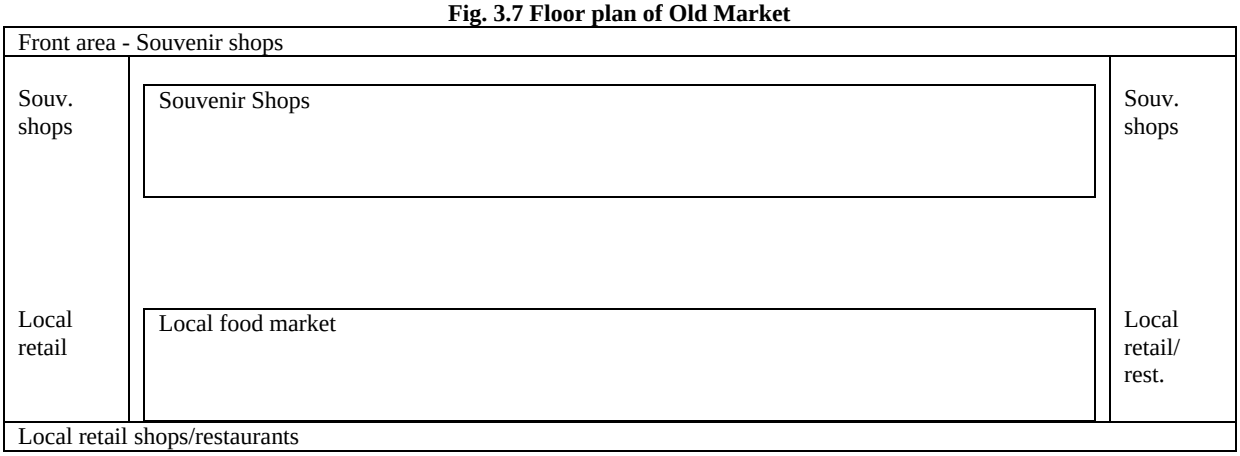
Confidence interval is the parameter above or below which we are confident the majority of the population would answer similarly. In this case, the population of souvenir shops is large and the author could be 95% sure that the population would answer within ± 10, so souvenir shops were calculated with a confidence interval of 10. Restaurants and hotels were easy to find and popular, so again the author was somewhat sure of answers, and used a 15 confidence interval for restaurants, and a 13 for hotels. Guesthouses and travel agencies were more spread out and less known. The author was not sure how the population would answer, so confidence intervals of 20 and 23 respectively, were used. Fortunately, permission to enter establishments in Cambodia is not strict, and the team could proceed with the survey

relatively easily. In order to achieve randomness, a number was assigned to each shop, which was drawn blindly. One person from each shop was randomly chosen as the interviewee by the research team. As the research team members entered the shop, the first person to be seen was chosen as the interviewee after verifying that they had not been interviewed previously.

3.2.5 Limitations

The lack of adequate data regarding total population in Siem Reap made sample calculation difficult. Since little exists on working population, the sample size was determined for total shop number, not on total number of interviewees. To circumvent this problem, each shop was assigned a number, which was drawn blindly. From there, only one person in each shop was randomly chosen by the interviewer or shop manager to be interviewed. Another problem was the lack of a detailed map including addresses of all the business located in Siem Reap around Old Market making it difficult to conduct pure random sampling. For this reason a map was generated by the research team for interviewing purposes. Old Market, our survey target for souvenir shops, had no data on total number of shops. To solve for this problem, the shops inside Old Market were manually counted and tabulated into a floor plan to be used in the survey procedure (Fig. 3.7). The manual tabulation was difficult and time-consuming as the shops were very small and close to one another, although the floor plan assured that we obtained an adequate level of randomness. However, time and monetary constraints made achieving a large sample size difficult. Siem Reap City has data on numbers of shops, but very little initial data in other factors, which could have been useful. These factors include: product prime cost, rent, electricity cost, start-up cost, etc. In addition, little data on sex and educational distribution of workers also made sample calculation difficult. Another area where data lacked was in the minimum wage income in tourism businesses in Siem Reap for comparing with our survey average wage and salary results. Designing an adequate questionnaire was challenging due to insufficient knowledge of small family businesses, sole proprietorships, labor laws, rent, costs, and other information in Cambodia. These factors caused some problems regarding the examination of the socio-economic situation of tourism businesses. Even though shortcomings existed, an adequate sample size was determined. This made it possible to obtain statistical significance. Another significant problem was that during the survey, the student assistants were hesitant to interview their fellow countrymen in English. The author encouraged and taught them interview techniques to get relevant answers from the respondents regarding all background aspects as it was an essential part of the author's research.

Fig. 3.7 Floor plan of Old Market



Source: Compiled from survey data, 2010.

3.3 General Socioeconomic Conditions of Siem Reap TI: Survey Results[16]

This study incorporates various tables and information with respect to different businesses in this survey. Siem Reap contains many TI businesses; however, we chose only 5 obvious TI businesses to observe for simplification. Those businesses were: 1) souvenir shops, 2) restaurants, 3) guesthouses, 4) hotels, and 5) travel agencies, and in 2013 6) tuk-tuks. Before the analysis a classification and background explanation of the businesses will be offered. As the businesses have very different characteristics, we will also give general socio-economic information, such as gender, age, province of birth, previous jobs, job requirements, and languages spoken. Qualitative information, such as whether the employees had improved salaries, better employment prospects, and ease of finding jobs with English will also be included (Table 3.3). A table containing general demographic information of TI businesses will be examined thereafter (Tables 3.4 and 3.5).

An income benchmark for service industry employees and a benchmark English proficiency level for TI employees from this survey will be introduced. This will enable the reader to understand the basic differences in each business with regards to English proficiency and income. According to the Cambodia Institute of Development Study (2011), a minimum wage was only installed for the garment, textile, and shoe industry. A minimum wage for TI businesses has never been established. Most TI employees are paid in kind. Due to strikes by garment workers, and tension from garment unions, the garment minimum wage was raised from US $55 in March 2013 to the present value of US $80 (GMAC, 2013) by the Cambodian government. Since there was no minimum wage specifically for TI in 2010, the garment minimum wage of US $55 will be used as a benchmark for the TI study in 2010. To account for changing times and standard of living increases, the garment minimum wage of US $80 will be used as the income benchmark for 2012 and 2013 values. In addition, the base English levels of TI employees were found to be 2 in 2010, 2.5 in 2012 and 2013 from the survey experience and these values will be used as the benchmark English proficiency levels in 2010, 2012, and 2013.

[16] Some material in this section was previously published in Lwin and Morrow (2013), pages 110-122, and in Morrow (2014), pages 120-128.

3.3.1 Classification and General Socio-economic Features of the Businesses

1) Souvenir Shops. Souvenir is French meaning remembrance or memory and souvenir shops cater directly to the tourism market and sell various items, which one usually buys for the associated memories. Often connected to a location, items include mass-produced objects such as T-shirts, collectibles like figures, statues, and household items like coffee mugs and ashtrays. Souvenir shops in our surveys fall under this categorization, and were limited to shops only within Old Market (Fig. 3.7). To make our survey random, we assigned a number to each shop inside Old Market after tabulation. The interviewers drew the numbers blindly and the shop corresponding to the number was approached. Often times, there was only a single person working. In these cases, the interviewers chose this person as the interviewee; in cases where there were several employees, the first person to be approached was chosen as the interviewee. The interviewers were to verify that the employee had not been previously interviewed. The shops were close to each other, but randomness was achieved by alternating the interviewers and also by interviewing on different days.

The respondents in the 2010 survey totaled 74. The labor force was an average age of 25 years. In souvenir shops, however, we did find eleven respondents who were over 30, and 18 people who were 19 years or younger and only three were 40 years old. In other words, the labor force in souvenir shops is young and productive. From this we found that many family members of owners were also employed there, and that 65 percent of souvenir shop employees were female. Our survey showed 44 (59%) people were from Siem Reap Province, and 30 (41%) people were from other provinces such as Kratie, Odor Manchey, Very Veng, Bantey Mancheay, and Takeo. Five were from Phnom Penh. Totally, 51 (69%) were single, and 23 (32%) married, and of those, 19 had one or two children, while 14 live alone, while 60 live with family (mother, father or wife/husband with children), and none live in a school dormitory. Fig. 3.7 depicts the floor plan of Old Market after counting the establishments. Through analysis, it is evident that 2010 employees earned an average income of US $68 per month. However, the variation is quite high in both present income and previous income. Often times in souvenir/shops, the respondent did not know his or her own salary perhaps due to the fact that these were family businesses, so these samples were excluded. It is evident that the employees had an average of 10 years of general schooling, where 44 people (58%) graduated from high school. We found that 37 people were very happy in their jobs, and 31 were somewhat happy. In addition, 22 people (36%) of labor force had jobs previously; examples include waitressing, vegetable selling, tour leading, security work, agriculture, and shop staff work. There were 25 people (51%) who were able to obtain improvement in salaries and living conditions[17] from five years before, and 20 people (40%) believe they will have an increase in salary five years in the future. As for English level in souvenir shops, according to our findings, employees had an average English proficiency level of 2. Most studied English in school an average of four hours per week. Souvenir shop employees spent an average of US $10 per month on studying English. Other results regarding English show that 27%

[17] "Salaries" refers to a higher salary if subject had previous employment, "living conditions" refers to whether or not a subject can afford to buy more luxury items because they have work, and whether the subject can afford to pay rent or has better life conditions due to new employment.

had a better salary with higher English ability. Moreover, in our results, 51% said that they could find work easier with English ability. In addition, 56 respondents studied English in school; 18 of those studied for 3 years.

There were 60 total employees from souvenir shops in the survey in 2012. Of the total, 47 (78%) were female, and 13 (22%) were male at an average age of 27 years. Totally, 46 people (76%) were from Siem Reap, 1 (1%) from Phnom Penh, and 13 (23%) were from other provinces such as Battambang. As for marital status, 30 (50%) were married, and 30 (50%) were also single; of those 22 employees had children and 38 did not. Of the total, 6 employees lived alone, 27 lived with their families, and 27 lived in dormitories. The survey found that employees had previous jobs such as souvenir shop employee, seller, waiter, fishing, and religious temple staff. Most had job interviews, and some job requirements for employment in souvenir shops were English ability, organization, and experience. Languages spoken by souvenir shop employees were Khmer, English, some French, a bit of Japanese, and some Thai. Total high school graduates numbered 44, or 73%, while 22 had jobs previously. The average years of schooling was 10, 56 of the total studied English in school a total of 2 years at 4 hours per week. They spent an average of US $10 per month on English study. Souvenir shop staff earned an average of US $77.38 per month, and had an average English level of 2.06. Among souvenir shop employees, 62% believed they had improved salaries and living conditions, and 52% of the total said that English was an important factor in getting jobs.

In the 2013 survey, souvenir shop employees totaled 60; 53 were female and only 7 were male. This displays the situation where the majority of souvenir shop employees were female. This is probably because souvenir shops are relatively easy to start and require little start-up capital. Many require a buyer's fee in addition to monthly rent. Souvenir shop employees were an average age of 25. Totally, 44 were from Siem Reap, 2 from Phnom Penh, and 14 from other provinces such as Battambang or Kampong Thom. Of the total, 25 respondents were married, and 35 were single; of the total 22 had children. Totally, 13 lived alone, 37 with families, and 10 in dormitories. Previous jobs for those who had worked before included teacher, receptionist, teller, and tour guide. Other jobs included intern and waitress. Requirements for restaurant jobs were interest, English language, experience, and money skills. Languages used in souvenir shops were English, Chinese, Thai, a bit of Japanese, and some French. Totally, 41 graduated from high school and 17 did not; they studied an average of 2 years of English and 7.5 hours of English in school. Those who had previous jobs totaled 58. Souvenir shop employees had an average of 12 years of school, more than restaurants, and they made an average monthly income of US $144.05, also more than restaurants. In fact, in 2013, restaurants had the lowest salaries of the businesses, breaking the trend seen in the previous surveys of 2008, 2010, and 2012 in which souvenir shops had the lowest salaries. This could be due to the residual positive effects of the post-Lehman Shock; tourists were beginning to spend more money buying souvenirs. Souvenir shop employees had an average English proficiency level of 2.71, and spent an average of US $11.70 per month studying English. Those who had improved salary and living conditions totaled 82%, and 92% stated that English was important in receiving jobs.

2) Restaurants. Restaurants are establishments where food is prepared and served for a fee, usually

at the restaurant site. Restaurants were originally aimed at travelers, were unpretentious, and catered to public. Restaurants are usually differentiated according to the type of food. The restaurants in our surveys were located on Pub Street, Pub Street Alley (Fig. 3.6), and all were typical tourist restaurants there: open air, with large fans, casual, comfortable cushioned seating, offer different types of ethnic foods. For a random survey the restaurants were each given a number, which was drawn blindly. We chose to interview only a single wait staff member or front desk staff member, because these employees use English the most. The first person to be approached randomly became the interviewee after making sure that the employee was a wait staff or front desk staff and that they had not been interviewed previously.

Restaurant employees in the 2010 survey totaled 34, and were 60% female, and 40% male. Totally, 88% of respondents were single, and 12% were married; of those 9% had one or two children. They earned an average of US $69 per month, and were an average of 22 years old. Of our subjects, 70% were from Siem Reap Province, and 30% were from other provinces including Kampong Thom, Battambang, Takeo, and Banteay Mancheay. No respondents were from Phnom Penh. We found that 33% live alone, and 66% live with family. In 2010, restaurant subjects studied an average of 11 years in school, and 14 people (51%) graduated from high school. It was found that 11 people (45%) had jobs previously such as fast food, other restaurants, housekeeping and housecleaning, and in souvenir shops. In addition, 20 people were able to have an improvement in salaries and living conditions. Results also found that 16 people (59%) believe their salary will increase in five years with job experience. Moreover, 19 expect that they will be able to have a chance for promotion with English after 5 years. In addition, 9 people were very happy and 22 were somewhat happy in their present jobs. As for English proficiency, respondents in restaurants had an average English proficiency level of 2, much like souvenir shops. Of the total, 30 studied English in school an average of 5 hours per week. Not surprisingly 20 people believe that they have a better salary with English, and 22 people responded that they could find work easier. Totally, 10 employees in restaurants also had some kind of English training in speaking, reading and writing, and general English grammar, for an average of one month. Another 10 employees of restaurants reported that they spend an average of US $8 per month on English study. Those with improved living conditions and salaries totaled 56%.

Restaurant employees in the 2012 survey totaled 48, and were 62% female (30 people) and 38% male (18 people). Restaurant employees were an average age of 24 years. Of the total, 39 (81%) were from Siem Reap, 4 (8%) were from Phnom Penh, and 5 (11%) were from other provinces, such as Battambang and Takeo. Married employees totaled 13, and single respondents totaled 35; 7 married respondents had children, and 41 did not. Of the total employees, 16 lived alone, 22 lived with families, and 10 lived in dormitories. Restaurant employees' typical previous jobs included many who had cooked before. Other jobs included cashier, service, bartender, driver, and greeter. Job requirements for those in restaurants were experience, English skill and other language skill, work experience, friendliness, and intelligence. Language skills of those in restaurants were Khmer, English, a bit of French, and some Japanese. Of the total, 14 (29%) graduated from high school, and only 5 had jobs previously. The respondents had an average of 11 years of general schooling, and an average of 2 years of English is school at 5 hours per week. Restaurant employees spent an average of US $8 per month studying English. Employees in

restaurants earned, on average, US $80.50 monthly. They had an average English proficiency level of 2.39. Of the total, 20 stated they had improved salaries and living conditions, 19 believe they had better employment prospects, and 22 (46%) could find work easier with English. Of those, 56% said English was important in jobs.

In 2013, restaurant respondents totaled 57, and were an average age of 24. Female employees totaled 40, and males totaled 17. Of the total, 37 were from Siem Reap, 3 from Phnom Penh, and 5 from other provinces such as Battambang and Takeo. Married respondents totaled 12, and 45 were single; 10 had children while 47 did not. Living arrangements included 16 who lived alone, 33 who lived with families, and 8 who lived in dormitories. Restaurant employees had previous jobs such as service, waitress, and souvenir shops. Job requirements for restaurant workers were language skill, politeness, and intensive English skill. Language skills for restaurants employees were English, Thai, and Chinese. Of the total, 41 graduated from high school, and 18 did not. Average years of schooling were 11, and employees studied an average of 2 years and 9 hours per week of English in school. Restaurant employees spent an average of US $13.78 on studying English per month (more than 2012), and had an average English proficiency of 2.79, also higher than in 2012. Restaurant staff received an average income of US $131.39 per month. This value, too, was higher than in 2012. Of the total, 55 respondents found work easier and 50 received higher incomes than previously; 88% had improved salaries and living conditions.

3) Guesthouses. The third type of business in our survey was the guesthouse. Guesthouses are often converted houses or small buildings, similar to bed and breakfasts, hostels, or inns. Categorized by inexpensive prices, and simple accommodations, they often have only a bed, a toilet, and sometimes air conditioning. They are convenient and centrally located and many have a connected restaurant and can organize sightseeing. The guesthouses in our surveys were along Street Two, Street Three, and around Wat Bo Road, and contained anywhere from 5 to 15 rooms (Fig. 3.6). To obtain a random sample, within this area guesthouses were assigned numbers which were drawn blindly. The interviewers chose the first person to be seen as the interviewee; the requirements were that the interviewee must be a front desk staff member and had not been interviewed previously.

Total guesthouse respondents numbered 21 in 2010 and earned an average of US $72 per month. Many houses were family businesses, so some employees did not know, or did not have, concrete salaries. Guesthouse labor force was an average age of 22, while 13% were from Siem Reap Province, and 32% were from other provinces, including Kampot Thom, Battambang, and Banteay Mancheay. Of the total, 2 respondents were from Phnom Penh. In our survey, 90% were single, and 10% married; 26% had 1 or 2 children. As for the gender demographic, 34% were male and 65% female, a ratio much like souvenir shops and restaurants with more females. In 2010, the subjects in guesthouses studied an average of 13 years in school; 15 people (68%) graduated from high school. These two values are higher than souvenir shops and restaurants. Five people (20%) had jobs previously and worked in jobs such as cook, driver, or receptionist, whereas 19 had no previous job; four people (33%) had an improvement in salaries and living conditions from 5 years previously, and 5 people (23%) believe that they will be able to have an increase in salary after 5 years. Regarding English ability, respondents had an average English level of 2. The author

discovered that 13 people studied English in high school; 10 of these subjects studied English 5 hours per week for 2 years. The study hour per week is higher than in souvenir shops. In addition, 12 people (52%) stated they could receive a better salary with English ability, and 16 (69%) could find work easier. Interestingly, 10 of the guesthouse employees said they had training in English for hospitality businesses; this includes factors such as speaking/listening, and general conversation, and ranged from one week to one month. Guesthouse employees spent an average of US $10 per month for studying English. Those who had improved salaries and living conditions were 57%.

The total respondents in the 2012 survey were 55 people; of those, 30 (55%) of the employees were female, 25 (45%) were male, and an average age of 25 years. Total employees from Siem Reap were 34, 3 were from Phnom Penh, and 18 were from other provinces such as Kampot Thom and Battambang. Of the total, 13 were married, and 42 were single; of the married employees, 10 had children and 45 did not. Totally, 20 employees lived alone, 22 lived with families, and 12 lived in dormitories. In the 2012 survey, previous jobs of those working in guesthouses included restaurants, cook, waiter, receptionist, driver, and many with telephone experience. Job requirements for guesthouses included English and French language skill, experience, communication ability, customer service training, and the requirement that the employee must be female. Language ability for those working in guesthouses was Khmer, English, French, some Japanese, and some Chinese. Those who graduated from high school in guesthouses totaled 15, or 33%. Of the total, only 5 had previous jobs. Average years of general schooling was 13, in addition, 13 studied English in school for an average of 3 years and 5 hours per week. Respondents spent an average of US $13 per month on English study. Guesthouse employees earned an average of US $81.85 monthly, and had an average English proficiency level of 2.89. Totally, 4 people responded that they had improved salaries and living conditions, and 12 feel they had better employment prospects with English. Of the total, 16 could find work easier with English.

In 2013, guesthouse employees totaled 34, and were an average age of 28. Of the total, 19 were female and 15 were male. Totally, 25 were from Siem Reap, 1 was from Phnom Penh, and 8 were from other province such as Kampot and Battambang. Of the total, 14 were married and 20 were single; 6 had children and 39 did not. As for living arrangements, 6 lived alone, 17 lived with families, and 11 lived in dormitories. In 2013, 19 had jobs previously. Previous jobs included cleaner, service, tuk-tuk driver, receptionists. Job requirements were experience, English language skill, and writing. Language ability for guesthouse employees was English, Chinese, Japanese, and French. Those who graduated from high school totaled 25. Totally, average years of general schooling totaled 12. Guesthouse employees studied English an average of 2 years at an average of 7.5 hours per week, and had average English proficiency levels of 2.88. In guesthouses, employees had an average salary of US $169.71, double the 2012 salary. The employees spent an average of US $11.55 per month studying English. In addition, 31 respondents found work easier with English, and 30 received higher salaries than previously. Improved living conditions totaled 88%, and those who found English to be important in getting jobs totaled 91%.

4) Hotels. The word hotel comes from the French word, meaning host, and are fee-for-accommodation services, and are usually a higher level than guesthouses or bed and breakfasts. They vary

in size, and contain a bed, bathroom, TV, and often a sofa and a mini-bar. Hotels have, since the early 2000's, increased in both number and size in Siem Reap; the majority are now 5 star luxury hotels. These were located on National Road Six, and Angkor Wat Road (Fig. 3.6). Within this area, hotels were also assigned a number, which was drawn blindly. Hotels were quite serious, traditional establishments, and many were foreign owned. Therefore it was difficult to enter and interview without permission first. In most hotels, the managers were asked to allow interviewing beforehand, and were also asked to choose the interviewees by random selection. Again, only front desk staff was interviewed; no restaurant staff, cleaners, or bellboys were included in the interviews.

Total respondents for hotels in the 2010 survey were 38 and were an average of 24 years; 66% being male, and 34% being female. The 2010 findings showed that 45% were from Siem Reap Province, and 55% were from other provinces including Svay Rieng, Kandal, Sihanoukville, and Kampot. Hotel employees earned an average of US $104 per month, which is the second highest among the businesses. The hotel respondents in 2010 had an average of 12 years in schooling; however, 12 respondents studied for 16 years, including university. In addition, 27 people (71%) of respondents graduated from high school. More respondents in travel agencies graduated from high school and university. In hotels, 23 people (60%) had previous jobs in businesses such as bank teller, tourism, waitress, security guard, housekeeping, laundry, waiter, bellboy, and cashier. Totally, 19 people (55%) stated that they had improvement in salaries and living conditions than five years ago, and 19 people responded that they expect better salaries after five years. Regarding English proficiency, hotel employees had an average proficiency level of 2, much like those in souvenir shops, restaurants, but less than guesthouses and travel agencies. This is because in guesthouses, the front desk staff has to take care of everything themselves in English in developing countries. Respondents studied an average of seven hours per week of English; this figure is much lower than travel agencies, a fact that surprised the author. Interestingly, 16 people (47%) of hotel employees had better salaries with English, while 18 (52%) had somewhat better. Not surprisingly 33 people (82%) reported that they were able to find work easier with English; 17 respondents reported they spent an average of US $14 per month on studying English. Those with improved salaries totaled 50% or respondents in 2010.

There were 45 respondents in total for the 2012 survey, and they were 25 years of age on average. In the survey, more hotel employees were male than female, a definite change from the previous 3 businesses, where there were more female employees. From this we can determine that gender plays a role in some TI jobs in Siem Reap. This could be because hotels have more barriers and it is more difficult for women to obtain employment. The total employees in the survey were 45 people. Of the total, 28 (62%) were male, and 17 (38%) were female; 29 were from Siem Reap, 2 were from Phnom Penh, and 14 were from other provinces such as Kandal, Kampot, and Sihanoukville. Totally, 14 respondents were married, and 31 were single; 6 employees had children, and 39 did not. In hotels, 17 lived alone, 19 lived with families, and 9 lived in dormitories. Previous jobs for hotel employees consisted of other hotels, receptionists, security businesses, and other service businesses. Requirements for those working in hotels were an English-only interview, experience, English ability, communication ability, a small general aptitude test, a test of skill,

English language certificate, and a driver's license. Language ability for those employees in hotels was Khmer, English, French, some Japanese, and some Chinese. In hotels, 27 (60%) employees graduated from high school, and 23 (51%) had previous jobs. Employees had 12 years average of general schooling, and 34 of those studied English in school for an average of 3 years and 7 hours per week. Hotel staff spent an average of US $14 per month on English study. Hotel staff earned an average monthly income of US $115.73. Employees in hotels had an average English proficiency level of 3.45. Of the total, 19 (42%) employees had improved salaries and living conditions, 19 of them feel they had better employment prospects, and 33 (73%) could find work easier with English.

Hotel respondents totaled 49 in 2013, and were an average age of 27. Totally, 33 employees were male, and 16 were female. Totally, 32 were from Siem Reap, 8 were from Phnom Penh, and 9 were from other provinces such as Kampong Thom, and Takeo. Of the total, 20 were married, and 29 single, of the married employees, 19 had children and 30 did not; 12 lived alone, 18 lived with families, and 17 lived in dormitories. Of the total, 32 had previous jobs. Previous jobs for those hotel employees in 2013 were hotel, receptionist, waitress, and service. Requirements for those in hotels included intensive language skill, English proficiency, experience, and computer skills. Languages included English, Korean, Japanese, some Thai, and a bit of French. In hotels, 43 graduated from high school, and 6 did not. Hotel employees had 13 years of general schooling, and 5 years average of English study at 14 hours per week. Hotel staff spent an average of US $13 per month studying English, and had an average income of US $191.73 per month. Hotel employees had an average English proficiency level of 3.58. The employees in hotels, 23 could find a better job with English, and 21 had better salaries with English proficiency; 88% had improved living conditions, and 96% stated English was important in obtaining jobs.

5) Travel Agencies. Travel agencies provide services for travelers for a fee. Services include airline tickets, car rentals, railway tickets and reservations, and package tours. Travel agencies also provide reservations for tour guides in a particular area, and often provided travel and tour combinations to create a holiday with connection to airlines or other tour transportation. They arranged busses, sightseeing, and other activities, often in some kind of combination including: trekking, kayaking, and tours around culture tourist destinations. This is the type of travel agencies in our three surveys: combination agencies geared towards offering package holidays to tourists in SR and were located on Street 5, Achemean Street, and Sivath Boulevard. Like hotels, travel agencies contain more male than female employees perhaps for the same reason. For a random sample within travel agencies, within the survey area the travel agencies were assigned numbers, which were drawn blindly. Usually travel agencies were small and had only several employees. The interviewers chose the first person to come in contact with as the interviewee after making sure they had not been interviewed earlier.

The respondents in the 2010 survey totaled 17: 52% male, and 48% female, a slight change over the ratio in the last analysis we have seen, which had a larger percentage of females working. Our findings show that 72% were from Siem Reap Province, and 28% were from other provinces including Battambang, Kampong Thom, and Bantey Mancheay, with none being from Phnom Penh. As for marriage, 95% were single. Travel and tour employees had an average of US $117 per month, higher than the

previous four businesses that have examined. They were an average age of 26, which, for the majority, was slightly older than the other businesses. Travel agency employees had an average of 14 years of schooling in 2010 (higher than previous analysis in hotels), and 17 people (100%) graduated from high school, which is again, higher than the previous businesses in our research. Results found that 17 people (100%) had jobs previously, such as receptionist, cashier, English teacher, other travel agency, bank, hotel, and airline, and 12 people (57%) responded that they had better salaries and living conditions than five years ago; 13 people (59%) stated that they think they will receive higher incomes after five years. Regarding English proficiency, travel agency/tour operator had an average English proficiency level of 3. This is also higher than the English average in the previous businesses; so too is the fact that they studied English in school an average of 11 hours per week. In fact, 11 people (52%) studied three years or more. Eleven people (52%) had a better salary with English, eight (33%) had somewhat better, and 15 people (85%) were able to find work easier with English proficiency. Travel agency respondents reported they spent an average of US $12 per month on English study, an interesting fact, and also higher than the other businesses in our survey. In 2010, 65% of staff stated they had improved salaries and living conditions; 53% stated English was important in receiving jobs.

The respondents from travel agencies totaled 54 in 2012; of those 31 (57%) were male and 23 (43%) were female. Travel agency employees were on average 26 years of age. In travel agencies, 33 were from Siem Reap, 6 were from Phnom Penh, and 15 were from provinces including Battambang, Bantey Mancheay, and Kampong Thom. Totally, 17 were married and 37 were single; 9 had children and 45 did not. Of the total, 20 lived alone, 18 lived with families, and 16 lived in dormitories. Previous employment for those in travel agencies included driver, airline employee, receptionist, taxi driver, hotel, organizer, bank employee, English teacher, tour coordinator, cashier, and front desk clerk. Job requirements for travel agency jobs were English communication skill, computer skill, English speech at a fast pace, and intensive English skill. Languages spoken at travel agencies were Khmer, English, French, Japanese, Korean, Chinese, some Thai, and some Vietnamese. In travel agencies, 17 or 30% graduated from high school. As for previous jobs, only 17 had jobs previously, and had 14 years average of general schooling. As for those who studied English, 20 or 36 % studied English in school at an average of 3 years and 11 hours per week. Employees spent an average of US $12 per month on English study. On average, travel agency employees earned an average of US $157.68 monthly. The employees of travel agencies had an average English proficiency level of 3.31. Of the total, 17 people had improved salaries and living conditions, 11 or 20% feel they had better employment prospects, and 18 (32%) stated they could find work easier with English ability. The respondents who had improved salaries totaled 50%; 50% also believed English was important in getting jobs.

In 2013, travel agency respondents totaled 23; 13 were male and 10 were female. Travel agency employees were an average age of 25. Of the total, 18 were from Siem Reap, and 5 were from other provinces such as Battambang and Kampong Thom. Totally, 6 were married, and 17 were single; of those 5 had an average of 2 children. Of the total, 8 respondents lived alone, 9 with family members such as mother and father or husband and wife; 6 lived in school or work dormitories. Employees with previous

jobs totaled 7; they worked in such fields as service, restaurant, hotel, and sales. Job requirements in 2013 for travel agencies included: English communication, computer software knowledge, and intensive English skill. Employees were required to take a pre-hiring test, which included these factors. Languages at travel agencies included English, Korean, Japanese, and Thai. Employees had an average of 14 years of general schooling. Of the total, 21 graduated from high school, and studied an average of 4 years of English with an average of 7 hours of English study in school. Money spent for English study monthly was an average of US $11. Travel agency employees in 2013 earned an average of US $204.78 per month. English proficiency level of travel agency employees in 2013 was 3.4. Of the total, 44 respondents stated they had improved living conditions; 23 stated they could receive a better job with English and 21 stated they had a higher salary with English than before. Those employees with improved salaries and living conditions was 91%; 100% stated that English was very important in obtaining employment.

6) Tuk-tuks. A tuk-tuk, or a motorized rickshaw, is a common form of transportation in many countries of the world in addition to the Indo-China region: Thailand, Cambodia, Laos, and Vietnam. Tuk-tuk businesses were only included in the 2013 survey because these businesses were largely operated by slightly older male population, and change relatively little The author felt that they could not offer representative changes over time, nor information for the entire TI population. However, tuk-tuks were useful to examine for 1 survey as they shed light on the business characteristics of the slightly older male with less education. Tuk-tuks are rickshaws-for-hire, and consist of a covered basket or trailer with 2 two wheels connected in the front to the front part of a motorcycle: the engine, seat, and handlebars. In some cases the rickshaw is connected to a full motorcycle. Relatively inexpensive and easily maintained, tuk-tuks transport tourists from one spot to another; however, some charge over-inflated prices for short distances. Tuk-tuks are located all around the Siem Reap City area, and one can find a tuk-tuk quite easily. The tuk-tuks in the 2013 survey were located around Old Market, Pub Street, National Road 6, and Wat Bo Road. To ensure randomness, tuk-tuk groups were assigned a number, which was drawn blindly. The assistants chose the first person to be approached as the interviewee after making sure that they had not been questioned before. Tuk-tuk drivers totaled 69 in the 2013 survey, and were an average age of 32 years of age. Totally, 46 were from Siem Reap, 3 from Phnom Penh, and 20 were from other provinces such as Battambang and Takeo. Of the total, 62 were male, and only 7 were female. Totally, 43 were married, and 39 had children. Totally 51 lived alone and 14 lived with family; 4 lived in dormitories. Of the total, 35 had worked previously in professions such as tour guide, motorcycle taxi, bus driver, and guesthouse. Job requirements for Tuk-tuk drivers were really their own aptitude and hard work, English skill, and perseverance. Languages spoken by tuk-tuk drivers were English, Thai, and French. Totally, tuk-tuks had an average of 9 years of total schooling. Of the total, 21 stated they had graduated from high school, and studied an average of 2 years of English in school for an average of 9 hours per week, and spent an average of US $7 per month on English study. Tuk-tuk drivers made an average of US $192.90 per month. They had an average English proficiency level of 2.4. Of the total, 67 respondents stated they could find a job more easily with English ability, and 56 stated they could receive a higher salary with English than previously; 97% respondent the English was important in getting jobs and customers.

Table 3.3 Socioeconomic Features from TI Business Under Study 2008, 10, 12, and 13 (in % of Sample)

Variable	Graduated from High School				Continued Studying English After High School				Improved Salary and Living Conditions with English				English an Important Factor in Getting Job			
Survey Year/	**'08**	**'10**	**'12**	**'13**	**'08**	**'10**	**'12**	**'13**	**'08**	**'10**	**'12**	**'13**	**'08**	**'10**	**'12**	**'13**
Souv. Shops	41 (60)*	47 (74)	23 (60)	68 (60)	66	68	58	48	28	27	62	82	90	51	52	92
Rest.	35 (40)	41 (34)	37 (48)	72 (57)	58	97	77	72	77	56	63	88	98	56	54	96
Guest Houses	42 (40)	71 (21)	65 (55)	74 (34)	75	100	78	90	93	57	56	88	98	47	20	91
Hotel	37 (40)	71 (38)	80 (45)	88 (49)	80	97	82	88	92	50	38	94	98	37	51	96
Travel Ag.s	60 (20)	100 (17)	96 (54)	92 (23)	80	100	87	98	95	65	50	91	95	53	50	100
Tuk-tuk Drivers	N/A	N/A	N/A	30 (69)	N/A	N/A	N/A	62	N/A	N/A	N/A	43	N/A	N/A	N/A	97

Source: Calculated from survey data, 2008, 2010, 2012, and 2013. *Denotes total sample size.

3.3.2 General TI Demographics

This sub-section contains TI demographics found in the 2010, 2012, and 2013 surveys (Tables 3.4, 3.5). Most of the tourist industry labor force was in the 20's in all survey years. This means that there is good potential to develop job skills through English from now. Many older members of society were executed during the Pol Pot regime, and therefore there were fewer at age 40 and over, creating a skewed population. For this reason, TI is substantially important for youth culture in Cambodia.

In 2010, employees under study totaled 184. In 2010, the gender breakdown was 82 males (45%) and 55% (102) were female. Most respondents were in the 20's, and 14% (25 people) were between 10 and 19 years; only 4 people were over age 40. In the survey of 2012, the total number of respondents was 262. The majority (73%) is in their 20's, and 8% are between 10 and 19 years of age. Only a few (16%) are in the 30's, and very few (3%) are over 40 years of age. In 2013, the respondents totaled 292. Of the total, 10 (3%) were between 10 and 19, and 168 (58%) were in the 20's. Of the total, 19 employees were over 40. This shows that the TI industry attracts a young, vibrant labor force, who eager to work with travelers. Unfortunately, many TI employees use their jobs as a stepping-stone to higher paying jobs in different careers such as banks or offices so many TI jobs are not taken seriously. However, TI does provide necessary employment especially for females.

In 2012, 83 (64%) employees in souvenir shops, restaurants, and guesthouses (a total of 129 respondents) were female, and 46 respondents (36%) were male; in hotels and restaurants (a total of 55 respondents), 36 employees (65%) were male. Like 2010, in 2012 souvenir shop, restaurant, and guesthouse employees (a total of 163) had a majority (65%) of female employees. In hotels and travel agencies (99 respondents) the majority (59%) was male. In 2013, souvenir shop, restaurant, and guesthouse respondents were a total of 151. Of the total, 26% were male, and 74% were female; in hotels and travel agencies (73 respondents), only 40% were male, and 60% were female.

The year 2013 saw an increase in female employees in hotels and travel agencies for the first time in our surveys. Tuk-tuks, totaling 69 employees still had a majority of male employees (62) and only 7 were female. In 2012 most employees (110) were from Siem Reap, and 12 were from Phnom Penh. Of the total,

62 were from other provinces such as Battambang and Banteay Mancheay. In the survey 41 respondents were married, and 143 were single; of the married employees, 34 had children. Most lived with families (132 respondents) and 52 lived alone in 2010. Most employees in 2013 were from Siem Reap Province (69%), although a few migrated from other provinces such as Banteay Mancheay, Battambang, and Takeo (25% total). More employees were single, but many were married, and a few had children. As for living arrangements, 42% of the total lived with their immediate family (fathers, mothers, and siblings), and 30% live alone. The remainder lived in school or work dormitories. In 2013, 202 respondents were from Siem Reap, 17 were from Phnom Penh, and 73 were from other provinces, such as Battambang, and Takeo (Table 3.4 and 3.5).

Table 3.4 General Demographics of TI Labor Force Under Study (number), Siem Reap, 2010, 2012, and 2013.

Item		Souvenir Shops			Restaurants			Guest Houses			Hotel			Travel Agencies		
Year		**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Age	10-19	18	8	5	2	5	2	3	4	1	2	1	1	0	2	0
	20-29	45	31	46	31	41	48	17	41	23	30	40	31	15	39	20
	30-39	8	16	9	1	2	7	1	8	9	6	4	12	1	12	2
	40 +	3	5	0	0	0	0	0	2	1	0	0	5	1	1	1
Total		***74***	***60***	***60***	***34***	***48***	***57***	***21***	***55***	***34***	***38***	***45***	***49***	***17***	***54***	***23***
Sex	M	23	13	7	15	18	17	8	25	15	26	28	16	10	31	13
	F	51	47	53	19	30	40	13	30	19	12	17	33	7	23	10
Total		***74***	***60***	***60***	***34***	***48***	***57***	***21***	***55***	***34***	***38***	***45***	***49***	***17***	***54***	***23***
Province of birth	Siem Reap	44	46	44	24	39	37	13	34	25	17	29	32	12	33	18
	Phnom Pn	5	1	2	0	4	3	3	3	1	4	2	8	0	6	0
	Other	25	13	14	10	5	17	5	18	8	17	14	9	5	15	5
Total		***74***	***60***	***60***	***34***	***48***	***57***	***21***	***55***	***34***	***38***	***45***	***49***	***27***	***54***	***23***
Marital status	Married	23	30	25	4	13	12	4	13	14	9	14	20	1	17	6
	Single	51	30	35	30	35	45	17	42	20	29	13	29	16	37	17
Total		***74***	***60***	***60***	***34***	***48***	***57***	***21***	***55***	***34***	***38***	***45***	***49***	***17***	***54***	***23***
Children	Yes	19	22	22	3	7	10	4	10	13	7	6	19	1	9	5
	No	55	38	38	31	41	47	17	45	21	31	39	30	16	45	18
Total		***74***	***74***	***60***	***34***	***48***	***57***	***21***	***55***	***34***	***38***	***45***	***49***	***17***	***54***	***23***
Living																
O	Alone	14	6	13	12	16	16	5	1	6	15	1	12	5	2	8
	W/Family	60	27	37	22	22	33	16	8	17	23	4	18	11	8	9
	Dormitory	0	27	10	0	10	8	0	26	11	0	16	17	0	22	6
	Other	0	0	0	0	0	0	0	20	0	0	24	2	0	22	0
Total		***74***	***74***	***60***	***34***	***48***	***57***	***21***	***55***	***34***	***38***	***45***	***49***	***17***	***54***	

Source: Compiled using survey data, 2010, 2012, and 2013.

Table 3.5 General Demographics of Tuk-tuk Drivers, 2013

Item		Tuk-Tuk Drivers
Year		**2013 Only**
Age	10-19	1
	20-29	23
	30-39	33
	40 +	12
Total		***69***
Sex	M	62
	F	7
Total		***69***
Province of birth	Siem Reap	46
	Phnom Pn	3
	Other	20
Total		***69***
Marital status	Married	43
	Single	26
Total		***69***
Children	Yes	39
	No	30
Total		***69***
Living	Alone or (hus/wife)	51
	W/Family (mo/fa)	14
	Dormitory	0
	W/Friend or group	4
Total		***69***

Source: Compiled using survey data, 2013.

3.4 Method of Analysis[18]

In order for the reader to understand the results, the analysis method will first be explained. To statisically examine the interaction of English on income, 9 variables of socio-economic significance were calculated with 8 statistical measures. Those variables are: income, previous salary, English proficiency level, total years of schooling, amount of money spent on learning English monthly, hours of English education per week, years of English education, total working years, and English usage in days per month. Before we begin the analysis, the layout of the tables will be explained, and the variables and their abbreviations will be defined. In each table vertically on the left we find the variables used in calculations. The measures used in calculations are displayed along the top of each table. Variable definitions are as follows: *Inc* is monthly salary in US dollars; *prev sal* denotes monthly salary in previous employment also in US dollars; and *Eng lvl* refers to English proficiency level after post interview analysis. *Ttl scho yrs* is the abbreviation for total years of education, *Eng $/mo* is the abbreviation for monthly English expenditure in US dollars, and *hrs/Eng* refers to the number of hours of English learned in school per week. *Yrs Eng edu* is the abbreviation for total years of English education in school, and *wkng yrs* refers to years of

[18] Some material in this section was previously published in Morrow (2014), pages 118-119.

employment at the present job. Finally, *Eng/days* is the abbreviation for number of days English is used per month. As for the measures, *mean* is the central line of data or average, *median* is the exact central point of the data, and *mode* is the value which appears most often. *Variance* shows dispersion in the values, *standard deviation*, abbreviated as *SD*, exemplifies how far the values are spread out from the mean, and *coefficient of variation* (*CV)*, or the ratio of the *standard deviation* to the *mean*, is useful because values with differing units such as income and education can be compared. Table 3.6 contains a breakdown of variables used in statistical analysis.

Covariance indicates much about variables' relationships with one another; two variables moving in a positive direction show a positive relationship among variables. However, movement in opposite directions shows no relationship. For *covariance* in this analysis, different variables from the statistical tables were chosen to obtain a more thorough understanding of socio-economic aspects. Specific variables related to English proficiency, English education and English usage per month were used to examine interactions with income. Table 3.7 encapsulates the variables and references used in *covariance* tables.

In addition to the above, a Pearson's R *correlation* test was also performed to show validity. The test correlated *income* with the slightly different variables from the covariance table, to gain more insight. *Correlation* coefficients range between -1 and +1; those closer to +1 are significant, and those closer to -1 are less significant. Table 3.8 outlines the variables and references used for the *Pearson's R correlation* test.

Pearson's R correlation is a method to examine linear data. However, Pearson's correlation is sensitive to outliers, and therefore data can be skewed. To account for this problem, *Spearman's Rank correlation* was also used to verify data. Spearman's Rank correlation is probably the best method of correlation to be used for the author's data because it does not rely on correlating data in a linear fashion, using ranking as the prime indicator of correlation, and therefore, it is less sensitive to outliers. Table 3.9 describes the variables used in *Spearman's Rank correlation*.

Table 3.6 Variables for Statistical Analysis

Variables	Reference
Inc	Monthly salary ($US)
Prev sal	Salary in previous job
Eng lvl	English proficiency levels
Ttl scho yrs	Total years of general education
Eng$/mo	Expenditure for English study per month
Hrs Eng/wk	Hours of English study in school per week
Yrs Eng edu	Total years of English education in school
Wkng yrs	Years working at the job
Eng/days	Days per month English is used

Source: Derived from survey data, 2010, 2012, and 2103.

Table 3.7 Variables for Covariance

Variables	Reference
Inc	Monthly salary ($US)
Eng lvl	English proficiency level
Ttl scho yrs	Total years of general education
Yrs/EngEdu	Total years of English education
Hrs Eng/wk	Hours of English study in school per week
Eng$/mo	Expenditure for English study per month
Eng/days	Days per month English is used

Source: Derived from survey data, 2010, 2012, and 2103.

Table 3.8 Variables for Pearson's R Correlation

Variables	Reference
Inc	Monthly salary ($US)
Eng lvl	English proficiency level
Ttl scho yrs	Total years of general education
Yrs Eng edu	Total years of English education in school
Hrs Eng/wk	Hours of English study in school per week
Eng$/mo	Expenditure for English study per month
Eng/days	Days per month English is used

Source: Derived from survey data, 2010, 2102, and 2103.

Table 3.9 Variables for Spearman's Rank Correlation

Variables	Reference
Inc	Monthly salary ($US)
Eng lvl	English proficiency level
Ttl scho yrs	Total years of general education
Yrs Eng edu	Total years of English education in school
Hrs Eng/wk	Hours of English study in school per week
Eng$/mo	Expenditure for English study per month
Eng/days	Days per month English is used

Source: Derived from survey data, 2010, 2012, and 2013.

3.5 Statistical Results of SR TI Businesses Under Study[19]

As can be noted in the following tables, *mean* values for *income* in all the businesses in 2010 and 2012 showed a clear ascending order from lowest income (souvenir shops) to highest (travel agencies). In addition, most of the mean income values in each business increased from 2010 to 2013. However, this data definitely contains outliers which cause skewness. To rectify this skew, *median* and *mode* were used as better central indicators. *Median* values also showed a similar order of salaries in 2012: souvenir shops a *median* of US $70, restaurants and guest houses a *median* of US $80, hotels a *median* of US $110, and travel agencies a *median* of US $150. *Median* values generally resembled the *mean* values. *Mode* values were somewhat in a similar order in 2010 and 2012: souvenir shops, US $100; restaurants, US $70; guesthouses, US $80; hotels, US $100; and travel agencies, US $150. In 2013, restaurants became the lowest salary with a mean of US $131.39, and median and mode both of 100. With this data souvenir shops and restaurants can be classified as the lower-tier income businesses. Because of this, it is most likely that the order of income found in mean values is true, and remains constant throughout the population. In other words, souvenir shop or restaurant salary will always be lowest, and travel agencies will be highest. In fact, the author's hypothesis was that more education, more years of studying English, more hours of English in school, and a larger amount of money spent on learning English would lead to higher salaries. After analysis it was evident that this hypothesis holds true. Although we cannot prove causation, there is obviously a relationship between more human capital attainments in education and salaries, and this means there is no doubt that contributions to human capital in English can have beneficial effects. As Mincer (1974) has found, more schooling leads to higher wages (which agrees with our findings), as outlined in his schooling model.[20] However, this idea is difficult to transfer to Cambodia

[19] Some material in this section was previously published in Morrow (2014), pages 132-149.

[20] See *Schooling, Experience, and Earnings*, Jacob Mincer, Columbia University Press (1974).

because educational data in developing countries is difficult or next to impossible to find, many students enter school but don't graduate, many students do not even enter school, and many go to haphazardly built and administered schools with no records. In addition, those with drive and aptitude, such as tuk-tuk drivers, can receive higher incomes even though they have less education. However, in this survey we were able to gather much information on the actual income, English level, years of education, and hours of English study to help understand TI more thoroughly. This survey helped to realize a more definite structure and an income distribution to the businesses in Siem Reap.

Among all businesses (Table 3.10-Table 3.15), *median* and *mode* values were at US $60 each. *Variance* and *SD* values are both high in *income, prev sal*, and *Eng$/mo*, indicating more dispersion, and employees who came from varied job, varied education, varied years of schooling, and varied English education backgrounds. Values in *variance* and *SD* are low in *Eng lvl*, reflecting a similar English level in all employees. *Median* and *mode* values of *income* show that most made around US $60 per month, which is consistent with our findings. *Mode* values for *Eng$/mo* shows that monthly spending on English is nearly the same for most employees. *Mode* value for h*rs/Eng* varies greatly between respondents; some studied three while some studied as many as 12. *Mode* value for *ttl scho yrs* is low at three, while *median* is 12. This reflects the fact that a few employees graduated from high school and most employees only attended primary school.

Table 3.10 Statistical Results of Souvenir Shops, 2010, 2012, and 2013

Measure	**Mean**			**Median**			**Mode**		
Year / Variable	**2010 (74)***	**2012 (60)***	**2013 (60)***	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Income (US$)	68.15	77.38	144.05	60	70	120	60	100	100
Prev sal (US$)	40.13 (22 ppl)	86.34 (23 pl)	101.46 (58 ppl)	35	70	82.5	27	40	70
Eng lvl	2	2.06	2.70	3	2	3	2	2	3
Ttl scho yrs	10.20	9.88	12.03	12	9	12	3	9	12
Eng$/mo (US$)	10.34	9.40	11.71	5	2	5	0	0	0
Hrs/Eng	4.04	3.15	7.50	4	2	5	6	1	5
Yrs Eng edu	1.78	1.77	2.27	2	1	2	3	1	2
Wkng yrs	2.54	3.68	2.33	2	3	1	2	1	1
Eng/days	26.38	24.21	28.25	30	30	30	30	30	30
Measure	**Variance**			**SD**			**CV**		
Year / Variable	**2010 (74)**	**2012 (60)**	**2013 (60)**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Income (US$)	1128.24	877.73	4113.56	33.58	29.62	64.14	0.49	0.38	0.45
Prev sal (US$)	54.15	4256.32	2644.52	7.35	65.24	51.42	0.29	0.75	0.51
Eng lvl	1.62	1.18	1.02	1.27	1.08	1.01	0.6	0.52	0.37
Ttl scho yrs	7.05	8.85	9.92	2.65	2.97	3.15	0.26	0.30	0.26
Eng$/mo (US$)	520.14	627.83	404.91	22.64	25.05	20.12	2.18	2.66	1.72
Hrs/Eng	15.86	10.52	45.11	3.98	3.24	6.72	0.98	1.02	0.89
Yrs Eng edu	1.20	3.32	2.53	1.09	1.79	1.59	0.61	1.01	0.70
Wkng yrs	4.76	9.49	6.33	2.18	3.08	2.51	0.86	0.83	1.08
Eng/days	79.32	109.69	34.40	8.90	10.47	5.87	0.33	0.43	0.21

Source: Calculated using survey data, 2010, 2012, and 2013. *Indicates sample size.

As for 2010 statistical results for souvenir shops (Table 3.10), *mean income* was US $68.15, and was above the benchmark for 2010 of US $55. *Median income* was US $60 as was mode. *Ttl scho yrs mean* value was 10.20, higher than in 2012. Souvenir shop staff spent a *mean* of US $10.34 on *Eng$/mo*; however, the *variance* was high as was the *SD*. Other high *variance* values were *income*, and *prev sal* (at *mean* US $40.13), indicating that employees came from a wide range of situations. Low *variance, SD*, and *CV* values were evident in *Eng lvl* and *yrs Eng edu*, and in the following survey years, this appeared to be the general case. *Eng lvl* in 2010 was a mean of 2; *Eng lvl* was a *median* of 3 and a *mode* of 2. This *Eng lvl mean* was just at the benchmark in 2010.

In 2012 souvenir shops (Table 3.10), the *income mean* value was lowest at US $77.38 and below the benchmark of US $80. *Median income* was US $100 and *mode* was US $40, with quite a high *variance* and high *SD* and *CV* values as well. This indicates that there was much discrepency between salaries at souvenir shops, and therefore less standardization. In fact, many souvenir shops were informal businesses. The *mean* value for *prev sal* was US $86.34, higher than present but only 23 people had jobs before. *Median* values for *prev sal* was US $70 and *mode* values were US $40. This shows that a few employees made US $70, but most made around US $40. The *variance* in *prev sal* was extremely high at 4256.32, indicating an inconsistent work situation in the respondents' past, which is quite common in souvenir shops. Souvenir shops are relatively easy to start, and require little start-up capital, so many employees quit and start their own souvenir shop and therefore move around a great deal. Those who did have previous jobs, however, are receiving higher salaries now. The *mean* value for *Eng lvl* was the lowest at a level of 2.06 (high beginning level), and the *median* and *mode* are 2, below the benchmark value of 2.5. Causation is difficult to prove; however, as we will see in the following tables, income rates *generally* rose along with English proficiency, again strengthening Becker's human capital theory that a hidden aspect influences higher income. This hidden aspect must be human capital investments in more years and hours of English education and higher English self study, as the author maintains. The value for *Ttl scho yrs* had low *mean, median*, and *mode* values as well; many souvenir shop staff had only a secondary school education. *Eng$/mo* showed that souvenir shop staff spent around US $9 per month studying English, but the *variance, SD,* and *CV* values are high, which was indicative of the large number of ways in which souvenir shop employees study English. Some employees studied very little and spent little money, while others spent a great deal of money on self-study. Values for *hr/Eng* were: *mean*, 3; *median*, 2; and *mode*, 1, all of which indicate that souvenir shop staff studied English around 3 hours per week. As for *yrs Eng edu*, souvenir shop staff studied English for roughly 1 year, as based on the statistical table. *Wkng yrs* value for souvenir shops staff was 3.68, which is actually quite long. The Souvenir shop staff used English an average of 24 days per month. Employees in souvenir shops could go and begin their own shops. However, in order to continue working and to obtain repeat customers, shop staff had an English proficiency level of 2, spent up to US $10 per month studying English, had 3 hours per week and 2 years of English study in school. In addition, they used English around 24 days per month. In a hospitality case such as this, customers will be able to receive friendly service, and therefore visit the store again.

In 2013, souvenir shop staff had a *mean income* value of US $144.05, above the benchmark

value of US $80, but higher than was found in the author's previous surveys in the past, and also much higher than staff *prev sal*. *Median income* was US $120 and *mode* reached US $100. Employees had a mean 12 years of *ttl scho yrs* as of 2013 and *median* and *mode* values also at 12, signifying that most had a high school education. This figure had risen from the past survey years in which souvenir shops had some of the least general education at junior high school level with a *mean* of over 9 years. This could be because of the influx of tourists to Siem Reap and the advent of the New Night Market near the Old Market area of downtown Siem Reap, which brings in more money allowing souvenir shop employees to obtain higher educations. The *yrs Eng edu* of souvenir shop staff totaled a m*ean* of 2.3 years (both *median* and *mode* at 2), with *hrs/Eng* in schools reaching a *mean* of 7.5 (*median* and *mode* at 5), interestingly, fewer hours than that of tuk-tuk drivers and the least in our survey. This is revealing because of the fact that souvenir shop owners often had family members working at shops because day-to-day business and shop upkeep was more important than family educations. Of the total sample in souvenir shops, 58 had jobs as of 2 years previously, and made *mean income* of US $101.46 at previous jobs. Employees spent a *mean* value of US $11.71 per month studying English, with a *median* level of US $5 and a *mode* at US $0, showing some investment in human capital. Mainly, souvenir shop learned English through continual use with customers, but a few had a private teacher or learned rudimentary speaking skills at a free English class. Souvenir shop staff *Eng lvl* was a *mean* of 2.7 (*median* and *mode* of 3), again higher than was found in previous surveys, and above the benchmark value of 2.5. As stated earlier, souvenir shop staff had qualities of lacking at English grammar, and speaking only enough to communicate on an English for tourism-specific purposes level for communicating simply for business. This aspect is also exhibited somewhat in restaurants as we will see in the upcoming analysis.

In restaurants for 2010 (Table 3.11), *mean income* value was US $69.70, the second from lowest in the survey, but above the benchmark of US $55; *median* and *mode* values for *income* were US $60 and US $50 respectively. In addition, median is US $50 for prev sal, and there is no *mode* for prev sal; *variance* in income, prev sal, and Eng$/mo are high. *SD* is also high in these values. In the following surveys this appears to be the norm. However, compared to other businesses, *SD* is lower than souvenir shops and hotels, but it is higher than guesthouses and travel agencies. Interestingly, *variance* is lowest in *income* of all the businesses. We assume this to mean that wage differential is not high in restaurants due to similarity of job type, working hours, and location. Mean value for Eng lvl in 2010 is 2.32, but above the benchmark. Ttl scho yrs mean is 10.97, hrsEng is 4.85, and yrs Eng edu is 2.35. Interestingly, many results in 2010 show a lower value than in 2012. This could indicate inconsistent work situations, but more likely it reflects the interview situation as the research team had a smaller sample size in 2010.

Table 3.11 Statistical Results of Restaurants 2010, 2012, and 2013

Measure	Mean			Median			Mode		
Year / Variable	2010 (34)*	2012 (48)*	2013 (57)*	2010	2012	2013	2010	2012	2013
Income (US$)	69.70	80.50	131.39	60	80	100	60	100	100
Prev sal (US$)	43.08 (11 ppl)	82.22 (18 ppl)	90.63 (30 ppl)	50	70	75	0	70	70
Eng lvl	2.32	2.39	2.80	2	2	3	2	2	3
Ttl scho yrs	10.97	10.98	11.80	12	12	12	3	12	12
Eng$/mo (US$)	8.35	6.93	13.78	5.5	5	8	0	0	0
Hrs/Eng	4.85	3.41	9.63	4	3	6	0	1	5
Yrs Eng edu	2.35	2.14	2.39	3	2	3	3	1	3
Wkng yrs	1.45	2.45	2.26	1	2	1	1	2	1
Eng/days	29.47	23.60	30	30	30	30	30	30	30
Measure	**Variance**			**SD**			**CV**		
Year / Variable	2010 (34)	2012 (48)	2013 (57)	2010	2012	2013	2010	2012	2013
Income (US$)	415.06	674.55	4108.28	20.37	25.97	64.09	0.29	0.32	0.49
Prev sal (US$)	895.47	1409.47	2147.98	29.92	37.54	46.35	0.69	0.45	0.51
Eng lvl	0.77	0.88	0.85	0.87	0.93	0.92	0.37	0.39	0.33
Ttl scho yrs	7.12	6.57	12.48	2.62	2.56	3.53	0.23	0.23	0.30
Eng$/mo (US$)	155.99	82.61	235.70	12.48	9.08	15.35	1.49	1.31	1.11
Hrs/Eng	16.67	7.31	67.82	4.08	2.70	8.23	0.84	0.79	0.86
Yrs Eng edu	16.67	1.47	1.27	1.47	1.21	1.13	0.62	0.56	4.47
Wkng yrs	1.00	3.16	4.79	1.00	1.77	2.19	0.68	0.72	0.97
Eng/days	9.52	109.73	46.41	3.08	10.47	6.81	0.10	0.44	0.25

Source: Calculated using survey data, 2010, 2012, and 2013. *Indicates sample size.

Mean values for *income* in restaurants in 2012 (Table 3.11) were US $80.50 and were just at the benchmark of US $80. Restaurants ranked as second from lowest income in 2012. *Prev sal* value is low, as in souvenir shops, and show *median* and *mode* values of US $70, illustrating that of 48 sample, 18 had previous jobs and most made US $70, but some made as low as US $30 per month. *Prev sal* also had a large *variance* at 1409.47. This is indicative of the previous work situation where many people had varying jobs and many had no jobs. Similar to the *income* value, restaurant employees had the second from lowest *Eng lvl* as well at 2.4, or high beginner level, and below the benchmark of 2.5. In addition, there was little *variance* and small *SD* in *Eng lvl*. Small *variance* and low *SD* levels signify that there was more cluster around the central line of data, and therefore more similarity in the variable. *Ttl scho yrs* had a mean of 11, with a *median* of 12 and a *mode* of 12. We understand this to mean that restaurant employees had at least around 11 years of total schooling, and shows many people at least went to high school. Restaurant staff spent around US $7 per month on studying English, less than souvenir shops, indicating they may be somewhat satisfied in their work situation. The *variance* in *Eng$/mo* was lower than souvenir shops and this may indicate that the money spent on studying English is more consistent. *Hrs/Eng* shows that restaurant staff spent almost 3 1/2 hours per week studying English in school, and around 2 years studying English in school. These values were higher than souvenir shops and indicate that as one spends more time studying English in school (and on one's own), one may be able to receive higher salaries. The *mean* value for *wkg yrs* was 2.45, less than souvenir shops. Although there was high *variance* and SD in *income, prev*

sal, and *Eng/days*, there was very low *variance*, *SD* and *CV* in *Eng lvl*, and somewhat low values in *yrs Eng edu*. This in turn means that the connection between job stability and English education was more consistent in restaurants. Those who are satisfied to have similar incomes to one another may be content to stay in restaurant jobs. *CV* in *income* and *Eng lvl* had quite similar values in both souvenir shops and restaurants, an indication that employees used English often at an average of 24 days per month like souvenir shops, but perhaps only for rudimentary communiation such as taking orders or giving prices. Employees in restaurants had an *Eng lvl* of 2.3, also below the benchmark of 2.5 of 2012. Employees had 10 years of schooling, spent around US $7 on English study, with 3 1/2 hours and 2 years of English study in school. In addition, staff used English at least 23 days per month which is crucial for improved customer service.

In 2013 the lowest income in our 6-business group was found in restaurants at a *mean* of US $131.40; this income was above the benchmark of US $80. Restaurants staff *income* had *median* value of US $100 and a *mode* of US $100. This is different from our previous surveys in which souvenir shop staff had the lowest income of all businesses. Restaurant staff had quite a high *mean* value for *Eng$/mo* of US $13.78, indicating a human capital investment per month on studying English for their livelihoods, and learned English while speaking with customers. A few, however, bought English textbooks, newspapers, and listened to English music. Many restaurants had computers on the premises where the staff updated the website and also browsed English websites for entertainment or news. The *median* value of *$ Eng/mo* was US $8, and *mode* was US $0. The staff of restaurants had a *mean* English ability level of 2.8, with a *median* of 3 and *mode* of 3, higher than both tuk-tuk and souvenir shop staff. This value was above the benchmark level of 2.5. In 2013, restaurant employees' *ttl scho yrs* had a *mean* value of 11.8 years, which was second from lowest just above tuk-tuk drivers, while the *median* and *mode* were both 12. *Yrs Eng edu* showed a *mean* value of 2.4 years; *median* and *mode* levels were 3 each. From this figure we can attest to the fact that restaurant employees had longer years of English education than both souvenir shops and tuk-tuk drivers in school. *Hrs Eng edu mean* value was 9.6 (*median* was 6, and *mode* was 5), again showing higher values than souvenir shops. Of the total number of interviewees, 30 had previous jobs within 2 years. The *mean* value of *prev sal* was US $90.63 and a *median* of US $75 with a *mode* of US $70. *Variance* was high in *income*, *prev sal*, and *Eng$/mo* in 2013 restaurant employees, but low in other values such *as ttl scho yrs*, *yrs Eng educ*, and *wkng yrs*. This indicates that, as has been verified, restaurant employees know the value of more education and returns to investments in human capital, as further authenticated by low *SD* values in *Eng lvl* and *yrs Eng edu.*

Table 3.12 Statistical Results of Guesthouses 2010, 2012, and 2013

Measure	Mean			Median			Mode		
Year / Variable	2010 (21)*	2012 (55)*	2013 (34)*	2010	2012	2013	2010	2012	2013
Income (US$)	72.38	81.85	169.71	60	80	150	60	80	200
Prev sal (US$)	54.42 (5 ppl)	74.03 (20 ppl)	107.90 (19 ppl)	50	60	80	50	50	80
Eng lvl	2.33	2.89	2.88	3	3	3	3	2	3
Ttl scho yrs	13.09	12.98	12.85	12	12	12	12	3	16
Eng$/mo (US$)	10.47	15.23	11.55	7	6	6	5	0	0
Hrs/Eng	5.23	5.87	10.15	5	6	8.5	5	6	14
Yrs Eng edu	3.19	3.24	3.42	3	3	3	3	3	2
5Wkng yrs	1.78	2.38	5.04	1	1	4	1	1	5
Eng/days	22.42	24.47	28.94	30	30	30	30	30	30
Measure	**Variance**			**SD**			**CV**		
Year / Variable	2010 (21)	2012 (55)	2013 (34)	2010	2012	2013	2010	2012	2013
Income (US$)	1386.54	1438.41	6512.03	37.23	37.92	80.70	0.29	0.46	0.48
Prev sal (US$)	1472.85	1757.36	4542.54	38.37	41.92	67.40	0.69	0.56	0.62
Eng lvl	1.63	1.09	0.77	1.27	1.04	0.88	0.37	0.36	0.31
Ttl scho yrs	7.39	7.24	8.01	2.71	2.69	2.83	0.23	0.20	0.22
Eng$/mo (US$)	122.96	856.33	136.82	11.08	29.26	11.70	1.49	1.92	1.01
Hrs/Eng	3.59	17.44	65.52	1.89	4.17	8.09	0.84	0.71	0.80
Yrs Eng edu	0.76	4.46	5.35	0.87	2.11	2.31	0.62	0.65	0.68
Wkng yrs	1.16	13.35	20.01	1.02	3.65	4.47	0.68	1.53	0.89
Eng/days	13.75	79.84	18.48	11.43	8.93	4.30	0.10	0.35	0.15

Source: Calculated using survey data, 2010, 2012, and 2013. *Indicates sample size.

The *mean income* of guesthouses (Table 3.12) in 2010 is US $72.38 (above the benchmark), followed by the *median* and *mode* values are US $60 each respectively, and again are slightly skewed due to outliers. This could indicate that on average, employees in souvenir shops, restaurants and guest houses all made around the same *mean income,* which is not surprising for those who have experience of visiting this kind of retail shop. Indeed, this type of shop can be classified as a lower income echelon business. As can be seen, *variance* values in *income*, *prev sal*, and *Eng$/mo* were all elevated, as they were in the souvenir shops and restaurants. This result seems to be consistent with these types of businesses; although employees in these simple retail businesses can earn a *mean income* of at least US $60, the wage differential among them is rather large. In addition, all the employees had a *mean Eng lvl* of 2 to 3, and all respondents in these three businesses used English 22 to 29 days per month. *Ttl sho yrs* had a mean of 13.09, a median of 12, and a mode of 12, indicating that shop staff had around 12 years of schooling. *Yrs Eng edu* showed a mean of 3.19 (with median 3, and mode 3), and *hrs/Eng* was 5.23 (median and mode values at 5). *Eng lvl* in 2010 in guesthouses was a mean of 2.33, with a median of 3 and a mode of 3, and above the benchmark. The English educational situation and the *Eng lvl* outcome show that guesthouses were striving to learn better English moste likely to obtain better positions.

As for guesthouses in 2012 (Table 3.12), similar trends in values resulted; high *variance* and *SD* in *income*, *prev sal, Eng$/mo*, and *Eng/days,* a fact similar to souvenir shops and restaurants. This held true for all businesses in fact, as in tables for hotels (Table 3.13) and travel agencies (Table 3.14). Here, *mean*

income was third from the lowest at US $81.85, but above the benchmark of US $80. *Median* value was US $60 and *mode* was US $50. *Mean* for *prev sal* was US $41 for 20 people of the total 55 in the survey; *median* value was US $60 and *mode,* US $50. These values showed the mean being quite low, and that most people made around US $50 per month. This exemplifies that guesthouse employees had drastic income uplifts after obtaining their jobs. If we examine *Eng lvl*, we see that it was third from lowest as well at 2.89, around low intermediate, but above the benchmark of 2.5. This level was higher than both souvenir shops and restaurants. *CV* values were less similar in guest houses, but *Eng/days* and *Eng lvl CV* values were quite similar and could indicate guest house employees had a higher *Eng lvl* because they communicated with guests on many different levels, and assumed many different roles such as front desk clerk, concierge, waiter, and bartender all in one. Of course, these roles required much English usage. This is turn always makes their employment prospects higher as they become more viable employees due to better English. As we will see in the correlation table later, there was a positive correlation between *income* and *Eng$/mo* (money spent on studying English per month) in guesthouses. To generate employment in guesthouses, staff had a higher level of English at around 3 (low intermediate). They were high school graduates, spent US $15 per month on English study, had almost 6 hours per week and 3 years of English study. In addition, employees were able to use English around 25 days per month with customers and guests.

In 2013, the *mean income* per month for guesthouses was US $169.70 and was above the benchmark. *Median* value of *income* was US $150 and *mode* value was US $200. In 2013 staff had a *mean* of 12.8 *ttl scho yrs*; the *median* value was 12 and the *mode* was 16. Employees had a mean of 3.4 *yrs Eng edu* (*median* of 3, *mode* of 2) and a *mean* of 10 *hrs/Eng* (*median* 8.5 and a *mode* of 14) in school. Those with jobs 2 years previously totaled 19 and had a *mean* of US $107.90 per month. The *median* value was US $80, and the mode of US $80 as well. Total human capital investments in English *(Eng$/mo)* totaled a *mean* of US $11.55 (*median* 6, *mode* 6). Most guesthouses had English magazines and books on the premises, and many had TV's in the lobby or living guest area. Employees generally had to have good English in order to procure their jobs, but many studied English at private schools or with a private teacher. They invested in English textbooks, and practiced English with guests. Guesthouse employees had a *mean Eng lvl* of 2.9, and above the benchmark, with *median* and *mode* values both at 3. Upon interviewing staff at guesthouses, it was found that they communicated with guests on friendly, down-to-earth mode for the pleasure of their customers which added to their English ability levels and to their communicative competence, ultimately leading to satisfied customers and to repeat visits and future business when their guesthouse was used again and also recommended to others.

Table 3.13 Statisitcal Results of Hotels 2010, 2012, and 2013

Measure	Mean			Median			Mode		
Year / Variable	2010 (38)*	2012 (45)*	2013 (49)*	2010	2012	2013	2010	2012	2013
Income (US$)	104.47	115.73	191.74	85	110	170	100	120	200
Prev sal (US$)	56.44 (23 ppl)	85.94 (17 ppl)	107.5 (32 ppl)	50	70	100	40	60	100
Eng lvl	2.28	3.45	3.58	2.5	4	4	3	4	4
Ttl scho yrs	12.60	13.62	13.14	12	12	12	12	16	12
Eng$/mo (US$)	14.52	11.15	13.78	10	10	9	10	10	0
Hrs/Eng	7.06	3.97	14.14	6	4.5	7	6	6	6
Yrs Eng edu	3.71	3.26	5.10	3	3	4	3	2	2
Wkng yrs	2.64	1.84	4.87	2	1.5	3	2	1	2
Eng/days	26.28	28.55	27.57	30	30	30	30	30	30
Measure	**Variance**			**SD**			**CV**		
Year / Measure	2010 (38)	2012 (45)	2013 (49)	2010	2012	2013	2010	2012	2013
Income (US$)	3353.77	1538.97	21858.9	57.91	39.22	147.85	0.55	0.33	0.77
Prev sal (US$)	2380.95	1683.80	3303.23	48.79	41.03	57.47	0.86	0.47	0.53
Eng lvl	2.31	1.13	0.49	1.52	1.06	0.70	0.66	0.30	0.20
Ttl scho yrs	8.83	6.74	7.58	2.97	2.59	2.75	.23	0.19	0.20
Eng$/mo (US$)	211.87	115.13	252.51	14.55	10.73	15.89	1.00	0.96	1.15
Hrs/Eng	46.27	6.25	229	6.80	2.50	15.13	0.96	0.62	1.07
Yrs Eng edu	3.40	3.54	13.54	1.84	1.88	3.68	0.49	0.57	0.72
Wkng yrs	2.01	1.71	25.64	48.79	1.30	5.06	0.53	0.70	1.64
Eng/days	80.31	31.70	45.25	8.96	5.63	6.73	0.34	0.19	0.24

Source: Calculated using survey data, 2010, 2012, and 2013. *Indicates sample size.

Hotel staffs' *mean income* in 2010 was US $104.47 (Table 3.13), which is double the benchmark. *Income* values had a *median* of US $85, and a *mode* of US $100. All of these values are above the benchmark, and reflect that employees had better incomes and more general schooling and years of English education. *Variance* in *income* and *prev sal* was very high, indicating a large skew. It is needless to point out that employees in hotels are salary workers rather than wage earners, and as a result, they have more stable incomes than the previous businesses. Therefore, these businesses can be considered higher echelon income businesses. Employees working in hotels are moving up the ladder in terms of higher salaries and better positions. *Mean Eng lvl* is 2.28, higher than restaurants and souvenir shops, but slightly lower than in guesthouses. However, the *Eng lvl* is above the benchmark. *Hrs Eng* is also the highest among the previous businesses. High *variance* values in *income* and *prev sal* indicate that employees came from different kinds of jobs in the past. The *variances* in *Eng$/mo, Eng/days,* and *hrs/Eng* per week are high, except in souvenir shops. This could indicate that employees in businesses except souvenir shops come from a varied English education background.

In 2012, the author expected hotel employees (Table 3.13) to have the highest *income*, although this was not the case. In actuality, travel agencies had the highest *income.* Hotel staff *mean income* value was US $115.73 with a *median* of US $110 and a *mode* of US $120, quite far above the benchmark. In actuality, hotel employee *income* was probably close to the *mean* value, but *variance* was high in *income* as were *SD* and *CV* values. *Prev sal* values were lower in *median*, US $70 and *mode*, US $60. *Variance*

was high in both *income* and *prev sal* as it was in the guesthouses, restaurants, and souvenir shops, again showing differing past and present working situation in hotels. This situation is quite common in businesses in developing countries. In fact, in Cambodia there is no real TI minimum wage nor standardized salary. Hotels had the highest *mean* values in *Eng lvl* at 3.45 (low intermediate), indicating hotel employees communicate with foreign guests daily, and must be able to handle problems clearly and professionally through their English communication. This value was also quite far above the benchmark. The *median Eng lvl* was 4 (high intermediate), as was the *mode*. This indicates that many employees were capable of quite in-depth, high intermediate level of communication. Employees also studied English in school, and all employees completed high school; as the *mode* value shows, some employees even graduated from or are attending university presently. This is supported by the fact that the value for *ttl scho yrs* is highest in hotels. As for *Eng$/mo*, hotel employees spent third from lowest per month studying English (US $11.15) and this shows in English ability which help staff get better incomes. The value for *hrs/Eng* was around 4, indicating 4 hours per week of English study in school, and spent just over 3 years learning English in school. To get jobs in hotels, young staff were high school graduates and had some years of English education. *Wkng yrs* value was actually lowest of the 5 businesses in hotels, indicating that employees spent the least time in their jobs, probably because of the world's economic problems. Hotel employees used English the most as found in the value for *Eng/days*, at 28 days per month which shows they had to use English practically all the time during work. As can be verified in the previous three business tables, that as values in *Eng lvl*, *ttl yrs scho*, *Eng $/mo*, and *yrs Eng edu* increase, *income* values also increase, indicating returns to investments in English human capital. As we can see in these results, investments in human capital for English education were returned in higher incomes, better employment situations, and higher standards of living. The standards of hotels are higher than other businesses. Hotel employees were all high school graduates and some attended college. Also, the majority spent over US $10 per month studying English, and had 4 hours and 3 years of English study to get better hotel jobs. Employees used English around 28 days per month and this was useful for excellent communication skills and customer service which always guarantees repeat customers as well.

In 2013, monthly *mean income* at present hotel jobs was US $191.74, double the benchmark, and the third highest in the 2013 survey. *Median* values were US $170 and *mode* value for income was US $200. Hotel employees had a *mean* 13 years of schooling with a *median* value of 12 and a *mode* also at 12. As for *yrs Eng edu*, hotel staff had a *mean* value of 5 years (*median* 4, *mode* 2); hotel employees had a *mean* value of 14 *hrs/Eng* in school, the most hours of English in our survey experience. Of the total, 32 had jobs 2 years previously while 17 had none. Human capital investments towards English education *(Eng$/mo)* totaled US $13.78, one of the highest investments in English human capital in the survey; this investment is crucial for getting jobs and also for keeping jobs in the important world of hotel front desk clerk where contact with tourists can have large influence on their travel experience. This investment showed through in English level; *mean* employee English level was 3.6, high intermediate level, and far above the benchmark. This value was the highest English proficiency level in our survey. Obviously, higher investment in English human

capital, more hours per week of English study, and more hours per week of English study paid off in higher incomes, as well as better jobs, in 4 and 5 star hotels in 2013.

Table 3.14 Statistical Results of Travel Agencies 2010, 2012, and 2013

Measure	Mean			Median			Mode		
Year / Variable	2010 (17)*	2012 (54)*	2013 (23)*	2010	2012	2013	2010	2012	2013
Income (US$)	117.05	157.68	204.78	100	150	185	150	150	200
Prev sal (US$)	91.17 (17 ppl)	114.44 (17 ppl)	105.31 (16 ppl)	70	90	95	70	60	80
Eng lvl	3.05	3.31	3.43	3	3	4	4	4	4
Ttl scho yrs	14.47	13.01	13.74	16	12	12	16	12	12
Eng$/mo (US$)	12.58	11.29	11.39	10	8.5	8	10	20	0
Hrs/Eng	8.17	4.64	6.75	6	5	4	5	6	2
Yrs Eng edu	5.11	3.68	3.95	6	3	3	6	3	2
Wkng yrs	1.32	2.27	2.98	1	2	3	0.5	1	2
Eng/days	27.88	25.72	30	30	30	30	30	30	30
Measure	**Variance**			**SD**			**CV**		
Year / Variable	2010 (17)	2012 (54)	2013 (23)	2010	2012	2013	2010	2012	2013
Income (US$)	1559.05	3017.65	9814.72	39.49	54.93	99.07	0.33	0.34	0.48
Prev sal (US$)	5607.90	5608.83	1728.23	74.88	74.88	41.52	0.82	0.65	0.39
Eng lvl	1.30	1.08	0.82	1.44	1.04	0.90	0.37	0.31	0.26
Ttl scho yrs	6.63	8.13	4.11	2.57	2.85	2.03	0.17	0.21	0.15
Eng$/mo (US$)	135.88	102.43	204.89	11.65	10.12	14.31	0.92	0.89	1.26
Hrs/Eng	50.27	6.11	95.90	7.09	2.47	9.79	0.86	0.53	1.45
Yrs Eng edu	1.98	9.70	5.09	1.40	3.11	2.26	0.27	0.84	0.57
Wkng yrs	1.06	4.32	5.71	1.02	2.07	2.39	0.77	0.91	0.80
Eng/days	35.73	31.0	0	5.97	8.82	0	0.21	0.34	0

Source: Calculated using survey data, 2010, 2012, and 2013. *Indicates sample size.

Generally in Siem Reap, employees in travel agencies (Table 3.14) have higher *mean income* than the other tourism related businesses. This has proven true in all the survey years; in 2010 the *mean income* was US $117.05, in 2012 the *mean income* was US $157.68, and in 2013 the *mean* was US $204.78. All of these values were above the benchmark. In addition, the *Eng lvl* in travel agencies was also the highest of all the businesses in 2010 at 3.05, and was clearly above the benchmark. However, other surveys have revealed that hotel staff had higher *mean Eng lvl* in 2012, at 3.31 and 2013 at 3.43. As with hotels, those who have a higher *Eng lvl*, those who have high *mean* value of *Eng$/mo*, and those who have high *mean* values of *yrs Eng edu* and *hrs/Eng* all have a chance to reach the upper echelon of employment in tourist industry of Siem Reap. *Variance* for *prev sal* in travel agencies is very high. We can only surmise that employees came from many types of jobs in the past as they were working their ways to better employment and higher incomes. Other high *variance* values were in *income* and *Eng$/mo*; however, low *SD* values were evident in 2010 in *Eng lvl*, *yrs Eng edu*, and *wkng yrs*. *Eng lvl* had a very low *SD* in 2013, reflecting possible stability and a more consistent English proficiency situation among employees.

In 2012, travel agencies (Table 3.14) had the highest *mean income* value at US $157.68 almost double the benchmark of 2012. This is because they are the most trained in English communication. We

know this because they had the most years of English education in addition to the most hours of English education in school. Employees must communicate with overseas travel companies often, and must have higher knowledge of computers for booking flights, hotels, and for communicating with foreign guests regularly. *Prev sal* was around US $114, with a *median* value at US $90 and *mode* at US $60, and the *variance* and *SD* in *prev sal* were high, again indicating much *variance* and extremely different past working situations. *Eng lvl* ranked fourth at 3.31, or low intermediate level, and also clearly above the benchmark. *Mode* for *Eng lvl* was 4, so we know that some employees had high intermediate English levels. *Ttl scho yrs* was also ranked fourth from lowest at 13 years. From this we know that travel agency staff at least graduated from high school, and many are studying in university presently. *Eng$/mo* was US $11, similar to what hotel staff spent, but less than guesthouses. From this data, it seems that hotel and travel agency staff still spent money on studying English each month even though they have better salaries. The *hrs Eng edu* value was almost 5 hours per week of English study in school, higher than hotels, but again, lower than guesthouses. The *yrs Eng edu* value was almost 4 years of English in school, which the longest of the 5 businesses. This is again indicative of higher returns to English human capital. These results show that travel agencies offered a high salary and the staff had long years of working at over 2 1/4 years, showing job stability. However, travel agencies also required long years of English education. In addition, travel agency staff used English almost 26 days per month, as found in the *Eng/days* value. The travel agency business is not standardized as of this time. As a result, the statistical result for *income* shows a very high *variance*. *SD* in *income* and *prev sal* were also quite high, and this indicates quite a different socio-economic situation in each person. This is understandable due to the unstandardized nature of the travel agency situation. Travel agencies staff had an English level of 3.3, or intermediate. This value was above the benchmark as well. Being a high school graduate and either in university or a graduate is paramount to receiving better salaries as well. Spending over US $11 per month studying English is important, as is having almost 5 hours and 4 years of English study in school. Employees of travel agencies used English at least 25 days per month to obtain excellent and professional communication with customers and overseas travel agencies.

In 2013 travel agency staff made a *mean income* of US $207.78, more than double the benchmark for 2013. *Income* values showed a *median* of 185, and a *mode* of 200 respectively. Travel agency employees in 2013 had a *mean* value of 14 years of *ttl scho yrs*, with a *median* value of 12, and also a *mode* of 12. Travel agency staff had a *mean* value of 4 *yrs Eng edu* per week *(median* 3, *mode* 2*)*, and a mean of 7 *hrs/Eng* study in school with a *median* of 4 and a *mode* of 2. Of the total, 15 had jobs 2 years previously while 7 did not. Those who had jobs previously had a *mean prev sal* of US $99 per month with a *median* of 90 and a *mode* of 80. Employees spent a *mean Eng$/mo* value of US $12 on human capital investments in English education. This investment shows up in higher incomes and better jobs in travel agencies, although it must be said that travel agencies are still not standardized, and incomes vary from business to business. As for *Eng lvl*, travel agencies had a *mean* of 3.43, and above the benchmark value of 2.5. The *median* for *Eng lvl* was 4 as was *mode.* As seen in other analyses, *variance* was high in *income, prev sal,* and *Eng$/mo,* indicating a differing work

situation. *SD* values were also quite high in these values. Low *SD* and *CV* values were found in *Eng lvlv, ttl scho yrs, yrs Eng edu,* and *Eng/days.*

Table 3.15 Statistical Results of Tuk-tuks, 2013

	Mean	Median	Mode	Variance	SD	CV
Income (US$)	192.90	200	150	6482.84	80.52	0.42
Prev sal (17 ppl.) (US$)	93.14	80	100	5930.07	77.01	0.83
Eng lvl	2.44	2	2	0.58	0.76	0.31
Ttl scho yrs	9.58	9	9	6.51	2.55	0.27
Eng$/mo (US$)	6.78	1.5	0	102.17	10.10	1.49
Hrs/Eng	9.17	6	5	6.51	2.55	0.26
Yrs Eng edu	1.96	2	2	1.48	1.21	0.62
Wkng yrs	2.33	1	1	6.33	2.51	1.08
Eng/days	27.49	30	30	44.11	6.64	0.24
Total Sample: 69 people						

Source: Caculated using survey data, 2013.

Tuk-tuk businesses were only sampled in 2013 (Table 3.15). This is because the jobs are often similar over years, male dominated, require no specialized education, and are often one-man operations. As such, they make no set salary, although Tuk-tuk drivers made the 2nd from highest *mean income* at US $192.90 in their jobs at the survey time, with a *median* of US $200 and a *mode* of US $150, more than double the benchmark value for income. Tuk-tuk drivers had also learned English well, probably more through use than education. They spent the least on studying English per month at US $6.78 on studying English, showing a median of US $1.5 and a mode of US $0. Most drivers revealed that they bought English magazines and newspapers sometimes, which indicated that tuk-tuk drivers invested a slight amount in their human capital English educations, but learned mainly through continual use with customers. However, English ability gained through use alone can generate quite good incomes; investment in English human capital for tuk-tuk drivers was more or less an investment in time. The lack of investments in proper, formal English education shows up in their English communication ability, however. Tuk-tuk drivers can make themselves understood, but had the lowest English ability levels on average at 2.44 in our survey, which falls below the benchmark for 2013 of 2.5. Not that they are in any way illiterate, but their grammar ability leaves a lot to be desired. It seems as if tuk tuk drivers use English for tourism-specific purposes, where they usually memorize set phrases and words for pure simple communication rather than for carrying on dialog. For this reason the employment situation for tuk-tuk drivers in somewhat unique. Souvenir shop employees also exhibited some of these qualities, and of course it must be said that some speakers generally are better than other, some are worse. However, English as a second language speaking ability in Cambodia is greatly reflected by the needs for professional employee communication. *Ttl scho yrs mean* value was 9.58 with *median* at 9 and also a *mode* at 9. *Yrs Eng edu* was a *mean* of 1.96, and *hrs/Eng* was a *mean* value of 9.17. From these values we understand that tuk-tuk drivers did study at least some English in school. *Wkng yrs* was a mean of 2.33 and *Eng/days* was a mean of 27.49

signaling that they used English slightly less than those in travel agencies.

3.5.1 Covariance Results

After analysis, there are some interesting outcomes in the covariance results (Table 3.16). For example, *income* and *Eng lvl* is positive in souvenir shops, restaurants, guesthouses, and hotels in 2010, and positive in restaurants, guesthouses, hotels, and travel agencies in 2012. In 2013, like 2010, income and Eng lvl was positive in all businesses except travel agencies. *Income* and *ttl scho yrs* were positive in all businesses in 2012, indicating the importance of education in all businesses, a fact which cannot be denied. Again, 2010 values in income with ttl scho yrs were positive except in restaurants and travel agencies, and in 2013 values were positive except in guesthouses and travel agencies. It was the highest level in hotels, which reflects the statistical tables and also the correlation test. Hotels had the highest value of *income* and *Eng lvl* as well 2010, 2012, and 2013. This showed that a high *Eng lvl* corresponded to higher *income*. In fact, hotels had the highest value of *income* with *ttl scho yrs* as well in all survey years. *Income* with *Eng$/mo* shows an especially positive level in guesthouses and the level in restaurants was quite high as well, indicating that these employees spent money studying English and this benefitted them by offering them more stable employment. These values were low in hotels in 2010 and 2013 but extremely high in 2013. *Income* with *hrs/Eng* had a positive connection, and was highest in hotels in 2010 and 2012. It was also very high in 2013, although the highest value of income with hrs/Eng was in guesthouses in 2013; second highest was travel agencies followed by hotels. This makes sense as hotel and travel agency employees responded that they must be high school graduates. *Income* and *Eng/days* was positive in hotels and travel agencies in 2012 and 2013. This exemplified the fact that both hotel and travel agency employees needed to English in a professional, proper fashion for their jobs, which was returned to them in the form of higher incomes. Finally, *income* and *job/hrs* was mostly positive, but quite highly so in travel agencies. From the statistical results it can be easily seen that hotels have the highest covariance results in all variables in 2013. This verifies that hotel employees make time and effort to study English more intensely and is then returned to them in more financial remuneration.

Table 3.16 Covariance Results, TI Businesses Under Study, 2010, 2012, and 2013

Variable	Income/Englvl			Income/Ttlschoyrs			Income/YrsEngedu			Income/HrsEng		
Year	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Souvenir Shops	3.98	-5.74	18.26	8.65	3.64	55.98	29.07	-7.27	-9.11	-8.11	24.12	94.85
Restaurants	2.74	6.65	12.86	17.21	6.44	70.71	-8.28	-1.81	22.60	22.75	0.35	175.81
Guesthouses	23.96	11.62	10.85	22.39	2.97	-3.61	1.45	20.07	8.35	28.95	11.90	368.87
Hotels	25.02	16.18	23.48	48.21	34.81	109.24	49.58	11.16	261.65	10.23	11.16	193.94
Travel Agencies	-1.59	6.65	-15.35	10.38	4.76	-2.23	0.93	-6.56	-16.06	64.63	-4.77	247.19
Tuk-Tuk Drivers	N/A	N/A	-7.79	N/A	N/A	3.94	N/A	N/A	-3.17	N/A	N/A	180.73

Covariance Results, 2010, 2012, 2013 (cont.)

Variable	Income/Eng$/mo			Income/Days/mo		
Year	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Souvenir Shops	26.13	126.40	-91.23	23.87	100.17	17.75
Restaurants	-7.54	69.76	199.73	5.13	-28.98	-194.57
Guesthouses	8.62	127.28	300.63	71.59	-51.20	-21.49
Hotels	-42.88	-20.29	440.19	28.70	22.72	14.21
Travel Agencies	-61.21	20.77	198.99	-16.81	39.35	3.47
Tuk-Tuk Drivers	N/A	N/A	-7.65	N/A	N/A	54.07

Source: Compiled using survey data, 2010, 2012, and 2013.

3.5.2 Correlation Results

The author also performed a Pearson's R correlation test to show validity (Table 3.17). In the correlation table, all variables were related to English background, proficiency, or education in order to examine the relationship of *income* with English more closely. Values for *income* and *Eng lvl* were the highest in guesthouses in 2010 and highest in hotels in 2012, and this solidifies our notion that employees in hospitality needed professional English on daily basis. Hotel employees must communicate on a broad and sometimes intense level, and the income reflects this. This value was highest for souvenir shops in 2013. In the previous analysis it was evdient that souvenir shops no longer had the ultimate lowest incomes in 2013, and the correlations show that souvenir shops may be becoming more stable forms of employment. *Income* and *Eng lvl* was next highest in guesthouses in 2012; in 2013 *income* and *Eng lvl* was next highest in hotels. This had to do with the friendly and service-oriented nature of hotels and guesthouses. In fact, in 2012 guesthouses showed a positive value for *income* and *yrs Eng edu* study as well, but only slightly high in 2013. This was interesting because guesthouse employees spent the most on studying English per month of any business in 2013, a strong indication that guesthouse employees wanted to better themselves by getting more education perhaps to move to higher paying positions. *Income* and *yrsEngedu* was highest in

hotels in 2013. This is not surprising considering the type of employment situations hotels possess. *Income* with *hrsEngedu* was highest in guesthouses in 2013 at 0.58, but also quite high in the other businesses. In fact, restaurants had next highest correlation, followed by hotels and then souvenir shops. This illustrates that even in the low-income businesses in our surveys, employees realized that a higher returns to investments in English education were possible. Values for restaurants were quite positive in *income* with *Eng lvl* and *income* with *Eng$/mo*, showing that restaurant employees used English a great deal in their jobs naturally, and may have also wished to obtain higher paying jobs. Results in travel agencies were the most surprising. We expected there to be higher values in *income* and *Eng lvl* for 2012, but the values were positive nonetheless. In 2013 values for *income* and *Englvl, ttlshoyrs*, y*rsEng* and *hrsEng* were all negative, but only slightly so. This indicates that travel agencies' English levels are already high and they do not take extra commitment to furthering their investment into English study. The value for *income* and *Eng$/mo* for travel agencies was highest in 2012, showing that TA employees studied outside of work and that positively affected *income.* In tuk-tuk drivers had positive correlations with *income* with *hrsEngedu* and *income* with *Engdays/mo*.

Table 3.17 Pearson's R Correlation Results, TI Businesses Under Study, 2010, 2012, and 2013

Variable	Income/Englvl			Income/Ttlschoyrs			Income/YrsEngedu			Income/HrsEng		
Year	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Souvenir Shops	0.09	-0.18	0.28	0.09	0.04	0.28	0.06	-0.13	-0.09	-0.08	-0.24	0.22
Restaurants	0.15	0.27	0.22	-0.32	0.10	0.32	-0.28	-0.06	0.32	0.28	0.01	0.34
Guesthouses	0.52	0.29	0.16	0.23	0.03	-0.02	-0.04	0.25	0.05	0.43	-0.07	0.58
Hotels	0.29	0.39	0.23	0.28	0.35	0.27	0.47	0.15	0.49	0.02	0.11	0.23
Travel Agencies	-0.03	0.11	-0.19	-0.10	0.31	-0.01	0.01	-0.03	-0.07	0.24	-0.04	-0.19
Tuk-Tuk Drivers	N/A	N/A	-0.11	N/A	N/A	0.02	N/A	N/A	-0.03	N/A	N/A	0.24

Pearson's R Correlation Results, 2010, 2012, 2013 (cont.)

Variable	Income/Eng$/mo			Income/Days/mo		
Year	**2010**	**2012**	**2013**	**2010**	**2012**	**2013**
Souvenir Shops	0.03	-0.17	-0.10	-0.06	-0.32	0.05
Restaurants	-0.03	0.30	-0.21	0.08	-0.10	-0.45
Guesthouses	0.02	0.11	0.33	0.17	0.26	-0.06
Hotels	-0.05	-0.05	0.19	0.05	0.10	0.01
Travel Agencies	0.01	0.38	0.15	-0.07	0.08	0.23
Tuk-Tuk Drivers	N/A	N/A	-0.01	N/A	N/A	0.10

Source: Compiled using survey data, 2010, 2012, and 2013.

3.5.3 Spearman's Rank Correlation Results

Upon examining the Spearman's Ranks correlation (Table 3.18), it is evident that there are some interesting outcomes. For analysis purposes, the author devised a system of determining the correlation coefficient. That system is as follows: 1.00~0.90 very high positive correlation; 0.89~0.70 high positive correlation; 0.69~0.50 moderate positive correlation; 0.49~0.30 slight positive correlation; 0.29~0.10 weak positive correlation; 0.09~0.01 very weak positive correlation. For example, in souvenir shops, the correlation coefficient for *income* and *Eng lvl* increased from 2010 to 2012 and again from 2012 to 2013, arriving at a value of 0.80, or high positive correlation. *Income* correlated with *ttlshoyrs* also shows a slight increase from 2010 and 2012, still high positive correlation. *Income* with *yrs Eng edu* is also high positive correlation in 2010, but dropped to 0.65 (moderate positive correlation) in 2012. It then increased slightly to 0.67 in 2013. This could mean that souvenir shop staff had realized they needed to study English as of 2010, for their employment situations. In *income* with *hrs/Eng*, correlations show moderate positive in 2010, but then increased to very high positive in 2012. This shows a relationship between *hrs/Eng* and *income*, and could mean that staff studied more seriously in 2012, but decreased study habits in 2013. This correlation decreased from very high, to high positive correlation (0.78) in 2013.

Table 3.18 Spearman's Rank Correlation Results, TI Businesses Under Study, 2010, 2012, and 2013

Variable	Income/Englvl			Income/Ttlschoyrs			Income/YrsEngedu			Income/HrsEng		
Year	2010	2012	2013	2010	2012	2013	2010	2012	2013	2010	2012	2013
Souvenir Shops	0.48	0.50	0.80	0.71	0.71	0.78	0.97	0.65	0.67	0.65	0.97	0.78
Restaurants	0.71	0.68	0.84	0.65	0.68	0.83	0.64	0.64	0.84	0.64	0.59	0.75
Guesthouses	0.93	0.73	0.45	0.37	0.66	0.63	0.69	0.72	0.82	0.72	0.55	0.70
Hotels	0.73	0.66	0.80	0.82	0.69	0.79	0.65	0.58	0.79	0.51	0.56	0.56
Travel Agencies	0.32	0.72	0.65	-0.10	0.73	0.69	-0.06	0.65	0.54	0.35	0.66	0.64
Tuk-Tuk Drivers	N/A	N/A	0.62	N/A	N/A	0.68	N/A	N/A	0.64	N/A	N/A	0.73

Spearman's Rank Correlation Results, 2010, 2012, 2013 (cont.)

Variable	Income/Eng$/mo			Income/Days/mo		
Year	2010	2012	2013	2010	2012	2013
Souvenir Shops	0.66	0.29	0.62	0.78	0.58	0.76
Restaurants	0.53	0.52	0.58	0.70	0.77	0.71
Guesthouses	0.51	0.56	0.62	0.81	0.78	0.70
Hotels	0.54	0.68	0.58	0.78	0.31	0.74
Travel Agencies	-0.50	0.65	0.45	0.16	076	0.66
Tuk-Tuk Drivers	N/A	N/A	0.49	N/A	N/A	0.74

Source: Compiled using survey data, 2010, 2012, and 2013.

3.6 Discussion and Further Implications[21]

This section extends the discussion of research findings to examine future implications of this analysis. In this section, how employees can earn higher incomes by moving towards better paying jobs with more investments in English education is viewed, whether it be in a school setting or by the employees themselves. Income distribution is examined to see which business has the highest mean income levels. This is done to explore the character of each business and what kind of background each business contains so future employees can hone their skills for getting better jobs. Generating employment factors are then examined to show that income levels rise with English proficiency and to show necessary goals employees need to attain to reach higher better employment in higher paying jobs.

3.6.1 Income Distribution

The author found through survey analysis that there was a definite distribution order to the businesses in our survey. Using *mean* and *median income* values, this distribution in ascending order was as follows: 1) souvenir shops, with a *mean* of US $77 and a *median* of US $70; 2) restaurants, with a *mean* of US $80 and a *median* of US $80; 3) guesthouses, with a *mean* of US $81 and a *median* of US $80; 4) hotels, with a *mean* of US $115 and a *median* of US $110; and 5) travel agencies, with a *mean* of US $157 and a *median* of US $150. The results showed a different ascending order in 2013 1) restaurants, with a *mean* income of US $131.39 and a *median* of US $100, 2) souvenir shops with a *mean* of US $144.05 and a *median* of US $120, 3) guesthouses, with a *mean* of US $169.71 and *median* of US $150, 4) hotels, with a *mean* of US $191.74 and a *median* of US $170, 5) tuk-tuks with a *mean* of US $192.90 and a *median* of US $200, and 6) travel agencies, with a *mean* of US $204.78 and a *median* of US $185. The income differential between souvenir shops (the lowest income earners in our survey), and travel agenices (the highest income earners in our survey) was US $80 in 2012; in 2013 the differential between restaurants (the lowest income earners) and travel agencies (the highest income earners) was US $73. In other words, using *mean* values calculated from our survey, travel agency staff earned 51% more per month than souvenir shop staff in 2013 and 56% more than restaurants in 2013. In addition, souvenir shop staff earned 35% more *income* per month than garment industry workers who made US $55 per month as a mimimum wage in 2012; travel agency employees made three times what garment industry employees earned per month then and, since the garment minimum wage increase to US $80 in March of 2013, they made almost 3 times as much. At any rate, it is evident that souvenir shops and restaurants are the lower echelon income businesses in SR TI, and hotels and travel agencies are the high echelon income businesses. Those who strive to obtain better jobs in TI should elevate their English education and ability to be able to get better jobs. Tuk-tuk drivers are unique in that they have quite good incomes with less education and lower English proficiency. Perhaps this is because they possess incentive and ambition to earn money for themselves; however, this is not the norm in society. Minimum and maximum income *mean* values naturally have outlier problems. This is why *median* values were used in calculations as well. However,

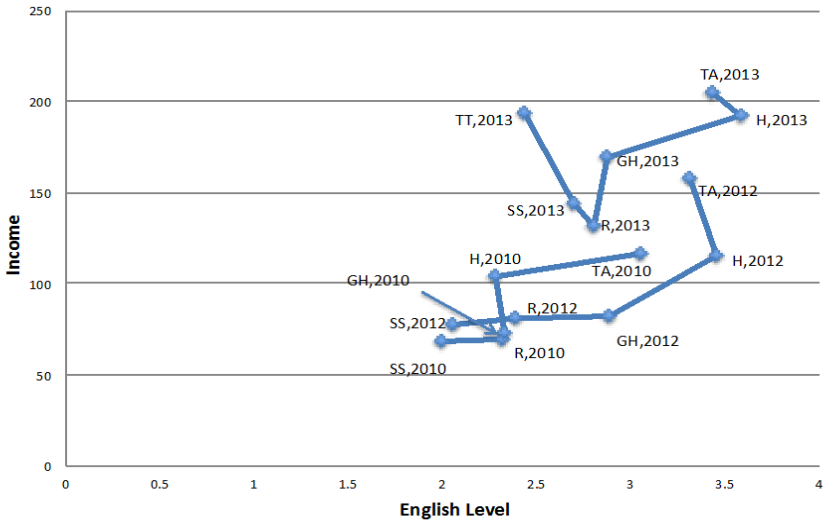
[21] Some material in this section was previously published in Morrow (2014), pages 144-149.

the central line of data is worthy of calculation and the author tried to obtain the truest values for this purpose. The reason for the unequal income differential in our data could have stemmed from the nature of the business situation, but also was based on differing educational background. Those who had longer total years of education, total years of English education, and hours of English education in school, and also had an expenditure to learn English monthly, and higher English proficiency levels. These aspects are all directly related to income, and potentially future employees are in a position to earn higher incomes and receive better jobs. Indirectly related to income was *frequency of English speaker visits* to the shop as customers. In this case, as the employees becomes better at English, English speakers visit more often and spend money to buy items. This spending is returned to the staff in higher salaries. Another aspect that is indirectly related to income is English usage in days per month. In this case, the staff uses English often and become adept English speakers. The better English speakers then attract would-be customers to their shops, and spending is also returned as higher salaries to the staff.

3.6.2 Generating Employment with English

We found during the survey experience, that many people owe a higher standard of living to the TI in SR. Without the TI, many people would not have jobs, and with English ability more people can get jobs than ever before. Those without English ability are disadvantaged due to the fact that Angkor Wat is a well-known World Heritage Site, and attracts visitors from every country. English proficiency can help generate employment situations and higher incomes for those working in TI, especially around World Heritage sites like Angkor Wat. Fig. 3.8 shows income values, on the Y axis charted against English proficiency levels on the X (horizontal) in order by business. As English proficiency levels rise on the X axis, income levels also generally rise; *income* and *Eng lvl* also increase as per each survey year. Here, it is evident that employees increase their English proficiency levels, their income rises, a fact which reflects the statisical and regression tables above. While Fig. 3.8 was created using mean values, it still remains incontrovertible evidence that *Eng lvl* is positively related to income in TI businesses in SR. It is evident that those who wish to move on to higher paying positions must study English and raise their English proficiency levels in order to get better jobs.

Fig. 3.8 Income vs. English Level 2010, 2012, and 2013



Source: Based on *mean* Value of Income and English Level Derived from Surveys, 2010, 2012, 2013
Key: SS-Souvenir Shops; R-Restaurants; GH-Guesthouses;
H-Hotels; TA-Travel Agencies; TT-Tuk-tuks

Due to the positive statistical results, the assumption made during survey experience that English ability is crucial to finding jobs and obtaining higher incomes in the developing country of Cambodia is solid. Fig. 3.8 shows that income is dependent upon factors directly related to income, such as English proficiency level, years of English education, hours of English education, and amount of money spent on studying English; as well as to factors indirectly related to income: frequency of English speaking visitors and English usage per month. Souvenir shops have the lowest mean *Eng lvl* and the lowest mean income. Restaurants have second highest *Eng lvl* in order, and guesthouses slightly higher than restaurants, rank third. Hotels have highest *Eng lvl*, but do not have the highest salaries as travel agency employees do. We can account for this difference being hotels have better income systems and more standardization than travel agencies, and they require higher English proficiency levels. We know now that as English level increases, income increases as well. It is obvious that those who study English in school and by themselves have the potential to have their investments in English education and proficiency returned to them in higher incomes. Table 3.19 shows income attainments those with level 5 and level 1 English-proficiency in 2013.

Table 3.19 Income Attainments of Advanced and Beginner English Communication Ability, 2013

English Level	Yrs. Eng. Edu. (Mean)	Yrs. Eng. Edu. (Median)	Hrs. Eng. Edu. (Mean)	Hrs. Eng. Edu. (Median)	Eng $/mo (US$) (Mean)	Eng $/mo (US$) (Median)	Income (mean) (US$)	Income (median) (US$)
5 (Advanced)	5.10	4	7	14	13.77	9	200.00	188.50
1 (Low Beginner)	1.95	2	6.7	4	6.67	1.5	70.00	80.00

Source: Calculated using survey data, 2013.

It is evident in Table 3.19 that those with an English level of 5 (advanced) can earn more income than those with a level of 1 (beginning) with human capital attainments in English education and ability. Those with level 5 English level studied English about 3 years more in school than those with a level of 1. In addition, those with a level 5 English-ability also studied English about 1 more hour per week in school than those with level 1, and spent US $7.10 (73%) more on studying English themselves per month than those with an English level of 1, and therefore, larger investments influence larger incomes. Clearly, all the factors point towards the fact that English education and proficiency is of paramount importance to obtaining higher paying jobs in TI. It is obvious from results that those with an English level of 5 have more opportunities to receive higher paying jobs with more stability, although this does not come without hard work and perseverance. We can say that the numeric English proficiency level, number of years of English education, number of hours of English education, and the amount of money spent on studying English monthly all are directly related to incomes and employment in Siem Reap TI. Other factors, such as English usage per month and frequency of English speaker visits are more indirectly related to income, but are still valuable activities. Again, this shows that English education and proficiency are both directly and indirectly related to income in the 5 businesses. This can help young employees receive higher incomes and stable employment in the TI of SR.

In the data under study, 78 total employees, or 70% of the total TI employees in SR had previous jobs within the previous 3 years. Of those who had jobs before, the TI labor force has seen a 50% increase in incomes from salaries previously. In fact, as Table 3.20 shows, most employees had large increases of income in 2012 over previous salaries, and hotels had the biggest increase at 72% in 2012; in 2013, souvenir shops had a large increase of 87% over 2012 salaries. This is evidence that travelers are spending more money buying items after the Lehman shock. It also verifies that the TI situation has returned to its normal state after the economic problems of the world, and therefore, is able to offer more employment and higher salaries. Hand in hand with higher incomes is generally higher English proficiency as seen in Fig. 3.8. The author posits that this is no accident; higher English proficiency and background leads to higher incomes, especially in TI in developing countries.

Table 3.20 Percent of Change from 3 Years Previous Salary, 2012 and 2013

Previous employment	3 Years Previous Salary (US$) (mean)	2012 Salary (US$) (mean)	Percent of Change 3 Year prev to 2012	2013 Salary (US$) (mean)	Percent of Change 2012-2013
Souvenir	33	77	+57%	144	+87%
Restaurants	30	80	+62%	131	+64%
Guest Houses	41	81	+49%	170	+73%
Hotel	32	115	+72%	192	+66%
Travel	57	157	+63%	205	+31%

Source: Calculated using survey data, 2012 and 2013.

Conclusion

In conclusion, through this research it is evident that larger returns to investments in English education and proficiency can be seen within the tourist industry in Siem Reap much more than in agriculture, garment, or manufacturing professions. Hours and years of English study in school, in addition

to money spent on learning English monthly, and developing English proficiency are paramount to receiving better jobs, and are directly related to income. In those variables indirectly related to income, such as frequency of English speaking customers and usage of English per month, are beneficial to the young labor force as it enters the TI job market. Though this survey was the second completed, it can be treated as a pioneer study as none like it has been done in the past. Although the sample size was small, the survey conditions were imperfect, and the data collection situation was difficult, the research team was able to gather some interesting and useful information from the tourist industry situation in Siem Reap. In addition to designing 2 questionnaires and collecting socio-economic data, the author has made several inroads into the discovery of English education's impacts on income and employment generation in a developing country. The survey experience led to more understanding of the socio-economic situation and how to foster income and employment growth in a typical cultural tourist destination as well. As mentioned in the analysis and discussion sections, the methods of classifying English proficiency have until now been unclear and difficult to quantify, relying on self-reporting. The author has made a contribution by developing a new language proficiency assessment for obtaining numeric measurements, allowing the research team to exactly and minutely measure English proficiency, allowing statistical correlation and comparison with other numeric variables such as income, years of English education, years of general education. This research has paved the way for more research into the fields of economics and English proficiency. The author's findings show that some significant findings were obtained in the surveys of 2012, 2012, and 2013.

1) The income levels in the 5 businesses have a definite ascending income distribution order in 2010 and 2012: (1) souvenir shops; (2) restaurants; (3) guest houses; (4) hotels; and (5) travel agencies, although in 2013 the order shifted as tuk-tuk drivers were added in that year. Thus the order shifted in 2013 to: restaurants, souvenir shops, guesthouses, hotels, tuk-tuk drivers and travel agencies.
2) Statistical results tell us there is a positive relationship between income and English level in 6 businesses of SR, and although it cannot be said that English ability alone achieved higher income, it is clear that a combination of English proficiency, English education, the amount of money spent on English education assisted in achieving better incomes.
3) A positive connection between income and years of general education could also be ascertained.
4) It is now verified that there is a positive relationship between hours of English education, years of English education, usage of English per month, and income, although causation cannot be proven.
5) Better employment situations can be attained if English in studied in school, money is spent to learn English on one's their own.
6) If one attains at least an intermediate level of English proficiency one can expect better income prospects.
7) Employment can also be generated by graduating from high school and attending at least some university.

It can be said, therefore, that those with English abilities may have better overall employment experiences which include ease of finding jobs, ease of keeping the job, better lifestyles, and conditions

overall, better sense of community contribution, better sense of their own employment. In a developing country, the money spent on one's own English education and better overall learned skills can result in higher paying jobs in TI. Due to the fact that monetary investments are difficult to measure in developing countries, a better paying job with slightly higher salary is perhaps akin to the returns to human capital investment as seen in six figure salaries, such as a corporate CEO in developed countries. The author would like to make an illustration now. As found through this survey experience, a typical employee in Cambodia's garment industry makes the minimum wage of US $80 per month, which was recently raised in March 2013 from US $55 (GMAC, 2013). However, according to the author's research from 2012, if the same person spends 3 years learning English in school for 5 hours a week and spends US $5 per month studying English on one's own, he or she has more chance to receive a job in a travel agency for example making US $157 per month, almost double the salary of garment jobs. In 2013, where the benchmark in the survey situation was US $80, all employees with higher investment in English education and English study outside of schools can earn upwards of US $200 per month, almost 3 times garment salaries.

During the survey situation, the author was able to verify important and interesting factors of general and English background education, the socioeconomic situation of day to day life, monthly income, family life, and living conditions of those working in developing TI. The goal of the author was to correlate income with English proficiency and with other variables to examine how better employment and incomes could be created, which the author has made a poineer effort at doing, and in the meantime gathered some interesting data. Other researchers must next examine the connection between English communication ability and employment in developing countries. The impact of language ability to employment and income is too important not to continue this project.

Chapter 4. Main Findings, Contributions, and Policy Recommendations

Introduction

This paper has verified that although research on generating employment and income through English is lacking, the author has proved that a positive relationship between employment, income, and English exists. In this chapter, a summary of the dissertation will be provided chapter by chapter. In addition to the summary, a review of the main findings of research, as well as the significant contributions the author has made, will be examined. Finally, policy suggestions will be offered. Section 1 examines a review of the main findings of this thesis. Section 2 offers the author's main contributions from this study on the role of English in procuring employment and income in SR TI. Section 3 gives policy recommendations for the future of employment and income with English communication ability in developing countries' TI.

4.1 Main Findings

As this paper has verified, English education and ability can gain higher returns to investments in English education monthly, as well as to improving English proficiency to at least a high intermediate level (see Chapter 3). In Cambodia, highly sought-after jobs are those in TI. Some young people may have opportunities to obtain jobs in TI without high English ability or education, though they may not be able to keep their jobs without continuing English education and elevating their abilities. One of the goals of the author was to investigate employment and income through English as a way to alleviate poverty. To this end, the author has conducted a lengthy empirical study on generating employment and income through English in TI in the developing country of Cambodia. Significant findings from the research have been discerned.

The main findings of this thesis follow.

1) An ascending order exists in employment and income (lowest income to highest income) in 2010, 2012, and 2013. Higher echelon businesses had higher incomes as well as higher English communication ability levels.

2) These values mainly corresponded to English communication ability levels in all years.

3) Those with fewer years of education, less English expenditure, less usage of English per month, have less employment potential and make less income.

4) If one attains an intermediate level of English communication ability, one can expect to earn close to US $100 per month.

5) If one spends 3 years learning English in school for 5 hours per week and spends US $5 per month learning English, one can receive a higher echelon job in a travel agency making US $157 per month, almost double the salary of garment jobs.

6) Those with English ability levels of 5 (highest) studied English 3 years more in school and spent

73% more on studying English than those with level 1.

7) These positive correlations could verify that English communication ability is important for procuring better employment and income.

8) Spearman's Rank correlation results were very important findings. Spearman's rank correlation showed mainly 'high positive,' and 'moderate positive' correlations with English-related background variables in calculations with income level.

For analysis, the author devised a system of Spearman's correlation coefficient level:

1) 1.00~0.90 very high positive correlation,

2) 0.89~0.70 high positive correlation,

3) 0.69~0.50 moderate positive correlation,

4) 0.49~0.30 slight positive correlation,

5) 0.29~0.10 weak positive correlation,

6) 0.09~0.01 very weak positive correlation.

1) Values for income/English level, 2013

Restaurants: high positive correlation (0.84); Souvenir shops: high positive correlation (0.80); Hotels: high positive correlation (0.80); Travel agencies: moderate positive correlation (0.65)

Tuk-tuks: moderate positive correlation (0.62)

2) Values for income/total school years, 2013

Restaurants: high positive correlation (0.83); Hotels: high positive correlation (0.79); Souvenir shops: high positive correlation (0.78); Travel agencies: moderate positive correlation (0.69); Tuk-tuks: moderate positive correlation (0.68)

3) Values for income/years of English education, 2013

Restaurants: high positive correlation (0.84); Guesthouses: high positive correlation (0.82); Hotels: high positive correlation (0.79); Souvenir shops: moderate positive correlation (0.67); Tuk-tuks: moderate positive correlation (0.64)

4) Values for income/hours of English education, 2013

Souvenir shops: high positive correlation (0.78); Restaurants: high positive correlation (0.75); Guesthouses: high positive correlation (0.70); Tuk-tuks: high positive correlation (0.73); Hotels: moderate positive correlation (0.56)

5) Values for income/monthly expenditure for English study, 2013

Souvenir shops: moderate positive correlation (0.62); Guesthouses: moderate positive correlation

(0.62); Hotels: moderate positive correlation (0.58); Restaurants: moderate positive correlation (0.58); Travel agencies: slight positive correlation (0.45)

6) Values for income/ days of English usage per month, 2013
Souvenir shops: high positive correlation (0.76); Hotels: high positive correlation (0.74); Tuk-tuks: high positive correlation (0.74); Restaurants: high positive correlation (0.71); Guesthouses: high positive correlation (0.70)

4.2 Main Contributions

As seen earlier in this thesis, the author conducted a series of surveys within the Siem Reap area specifically for TI employees in Siem Reap, Cambodia to examine the role of human capital attainments in English with regards to their employment situations and incomes. Siem Reap was chosen as the survey locale for its proximity to Angkor Wat, a typical cultural tourism destination. As such, it attracts visitors from around the world annually, and many of them are from inner circle countries and use native English or EIL in travel. During earlier travel experience there in the early part of 2000's, the author found that English proficiency was low for tour guides and guesthouse staff, and realized that this could be vastly improved to achieve better business situations. In addition, Cambodia as a developing country has very little data on English education and its contribution to per capita income, which lends itself to more research in the future.

Main Contributions:

1) The study on English communication ability and procuring better employment and income in tourist industry (TI) of a poorest country of Asia which does not have basic data, information, and literature;

2) Providing a bridge between the fields of English education and development economics, with particular focus on English communication ability and procuring better employment and income;

3) Conducting three continuous surveys in which the author could provide quantitative results on English communication ability and procuring better employment and income;

4) Providing quantifiable methods of measuring English communication ability in one of the poorest countries of Asia; and

5) Providing significant statistical positive results on English communication ability and procuring better employment and income.

4.3 Policy Recommendations

For years economists have been actively investigating the forces within developed and developing countries that influence the generation of employment and income. This endeavor has been one of the most important although one of the most difficult to achieve for governments, policy makers, and economists. Because of this, many research studies, both theoretical and empirical, have

been implemented to solve the problem of employment and income on a global scale. However, research concerning employment and income through English education has been lacking. This paper attempted to verify the positive relationship between employment and income through English with surveys conducted in TI in SR. However, policies involving not only education, but also English education are low or non-existent. Because of this, Cambodian citizens have come to not depend on the government, relying more on themselves for day-to-day subsistence. However, this type of living in the long run is impossible for any kind of sustainable human condition. Therefore more educational surveys, English ability assessments, data collection, data analyses, and discussions, must be completed. Moreover, more thorough investigation of methods to incorporate survey results into effective teaching and also effective learning for future employment and sustenance.

Present Cambodian policy on education reveals that although the government is attempting to create a better educational situation, thousands of children have little or no opportunity to obtain an adequate elementary education. Those who do must often travel many miles to and fro on foot, bicycle, or scooter, to their school. Even though they are regulated by the Ministry of Education in Cambodia, rural schools often pay teachers salaries as little as US $50 per month (author's interview, 2014). This figure is much less than the TI annual income in SR as seen earlier in this paper, and is so little, in fact, that teachers often require a fee from students to supplement salaries, a difficult burden for Cambodian children and parents. In addition, textbooks, teaching material, school buildings themselves are often in shabby condition. The author's non-profit organization (JSMLGF Foundation) was one of several NPO's that donated money to Mebon Elementary School in rural SR Cambodia for the purpose of landfill for flood prevention. In addition, junior, high, and tertiary educational funds continue to be insufficient, which creates problems for educational maintenance.

English education and ability has been found by the author during this research study to help young Cambodians obtain and keep employment in TI in SR. Its importance has been demonstrated for the livelihoods of Cambodians all throughout the country not only during this empirical research but also through Cambodians finding work in SR TI. English education is being taught at the elementary, secondary, and tertiary level, although the type of English education is haphazard and unstandardized. Many citizens of small towns learn English from older relatives and friends, or from television or movies, if available. English teachers are also few in number due to the fact of small salaries, low promotion rates, and no chance for raises. This aspect offers little motivation to become general or English teachers in Cambodia. There are positive aspects to Cambodia's English education, however. With ODA and FDI, programs such as the U.S. Government's ACCESS Micro-scholarship Program have been implemented. Financial backing from Australia and America has allowed many English institutions, such Australian Center for Education (ACE) and (AEC) American Education Center to be established. These institutions are worthwhile and advantageous. However, they are only accessible to the families and their children who have money, as some can be quite expensive. Education research into Economics and also English in journal publication and conference

administration has also become more fully acknowledged through organizations such as Cambodia Teaching English to Speakers of Other Languages (CAMTESOL), and Angkor University Research Center for Economic Development (AURCED).

TI, as seen earlier in this paper, makes a significant contribution to GDP yearly in Cambodia. Aid money, disseminated through international agencies stationed in Phnom Penh after Pol Pot and Khmer Rouge, was allotted for various reasons, such as infrastructure, educational, and health. Unfortunately, most TI revenue in addition to most of international aid money went directly to those in top governmental positions, and very little reached those who needed it most: ordinary Cambodian citizens. Knowing these factors, it is easy to see that Cambodian policy on education and education reform must be changed. This can be accomplished in several ways. These policy recommendations will be fully explained forthcoming.

As for policy suggestions for Cambodia, first and foremost, the Cambodian government must become more transparent. It has been shown in developed countries that government transparency leads to the checks and balances necessary in any modern government. This would ensure that adequate funding, generated from sectors such as tourism, and also from international aid and FDI, would be appropriately allocated to government ministries such as education and health. Although there was no time to research transparency, its importance cannot be stated enough. Through more transparency Cambodia can further elevate its development seen in neighboring countries such as Vietnam, Myanmar and the like. For example, the total number of visitors to Angkor Wat every year is staggering. However, the percentage of revenue allotted to TI activity in Siem Reap is very low. The government must think of the people who have been working around Angkor Wat and in Siem Reap for many years. It should provide skill development and effective minimum wage programs for those working at Angkor Wat. As of now, there is only a minimum wage in the garment industry. However, a minimum wage should be established for TI as well. The government should enforce labor laws and give protection to its citizens, as many people work in the informal sector. Large hotels and travel agencies may have health benefits and vacation time, but smaller businesses do not. Some employees may be exploited by business owners but not protected by the Cambodian government. This must change.

Secondly, with the more transparent government and more concrete, stable monetary policy, Cambodia can fully establish and administer rules and processes to allocate GDP portions from sectors such as tourism to areas that need it most in a budgeted fashion: education, health, and infrastructure. The author believes that education is the most important area for further growth in Cambodia. As in all countries, with education funding schools can become more important institutions that create a better environment through university research, for example. In addition, with adequate curriculum, materials, and training, the educational sector can attract more and more students and therefore more teachers. Elementary and secondary education, too, can become an important part of the human experience. Education is perhaps the most important attainment for

humanity because it is a fundamental building block of human society. It is only with education that laws are enacted, justice is created, infrastructure is built, companies are formed, business is accomplished, and development is achieved. It must be said that the Pol Pot and Khmer Rouge regime had much to do with the mindset and attitude of the Cambodian people. The regime killed millions of academics, lawyers, teachers, and doctors during its years of power, especially men. Therefore, the population is skewed towards a younger male population. Many Cambodians suffer from PTSD as a result of this devastating era (Brinkley, 2010). This slaughter took the lives of men who pass down knowledge, experience, drive, passion, and overall know-how to the younger generations. These aspects are extremely important aspects of education and training. When the young people who were babies during Pol Pot grew up, they had no knowledge or experience of completing fundamental tasks such as building roads or carpentry for example. When the author visited Cambodia during the course of this research, this fact was painfully obvious. Such problems with basic building tasks, for example, could be alleviated through English education because governmental staff, business owners, and the labor force could read and research previously published instructional materials. This being the case, English education should be taught in a more concrete fashion, allowing Cambodians to obtain more stable employment and higher salaries, perhaps in TI. Better English ability would also allow Cambodians to create other employment and income opportunities that may not be in existence presently. This English training could help the government, as well as small businesses, to conduct business and trade with the outside world leading to further growth of the economy.

Transparency also can assure that GDP contributions can reach ESP training appropriately by allowing institutions to give entrance English proficiency tests, train pupils adequately, and give exit tests to ascertain if ESP has been effective. For example, GDP contributions could be allotted to institutions such as ACE and AEC, as well as to universities with ESP programs for future employment in tourism such as the Royal University of Phnom Penh, the University of South East Asia, and Build Bright University. This would especially be useful for the future for globalization as it would not only allow English to be used globally in TI, but it would also allow for the universal growth of GDP in government, trade, banking, and other global business.

Conclusion

This study has proven to be an interesting, challenging, and useful endeavor during 5 years for the development of TI in SR and all over Cambodia. During the process, the author has interviewed countless TI employees to discover their socioeconomic backgrounds as a means to solving the worldwide problem of poverty. In the end, the author has authenticated the need for English for generating employment and income opportunities for young Cambodians to seize control of their own futures. Even though the government lacks leadership and accountability, Cambodians can still obtain

meaningful employment situations through English for their livelihoods. Cambodia is a unique country although it has had its share of troubled times. Many of the population have PTSD and seem to possess little passion for its own globalization. In addition, Cambodia is deeply Buddhist, a religion that teaches against gaining monetary and material possessions. This aspect in itself is a confusing obstacle for the advent of economic growth. For this reason, Cambodians are struggling to find their own identity and their place among the economically stable countries of the world.

Concluding Remarks

Although this endeavor was a preliminary attempt at undertaking such a study, much data was collected from which some important conclusions can be drawn. Of course, any pioneer study has limitations. However, the author has realized some significant findings during the course of this study. In Chapter 1, the author was able to find important literature relating to the areas around the author's research, such as returns to investment in schooling by Mincer (1974), which the author attempted to connect to his own research. Here, Mincer examined ungrouped data of employees with differing educational backgrounds, and found higher returns to those with education. This study was older; however, the study mirrors Cambodia of present. Chapter 1 also located a useful study regarding English proficiency and income in the developing country of South Africa. Casale and Posel (2010) certainly examined a large sample size in their endeavors of procuring an answer to their hypothesis that English was an important factor in respondents' incomes; a large return were available to those who had English proficiency. Casale and Posel's choice of TOEIC scores for a proxy of English proficiency and also relying on census data leaves much to be desired, but they paved the way for other researchers to continue research in this area, as the author has attempted. In addition, another study regarding income rates of Mexican immigrants to the U.S. by Sandford (2002) has concluded with the fact that more attention should be placed on the determination of English proficiency. Chapter 2 introduced Cambodia and gave important information on general aspects such as population, land area, gender ratio; it also covered such aspects as education, and employment, which is paramount to young Cambodians' livelihoods. Following this an introduction to Siem Reap, Gateway to Angkor was then covered, and the author was able to find much information related to TI. This helped to explain the background of the author's research, including location, population, and land area. The chapter also included the 3 important factors that helped Cambodia during redevelopment: international agency involvement, trade, and tourism, and focused on TI at length. Chapter 3 contained the author's research studies on generating employment and income opportunities through English communication ability in TI in Siem Reap, Cambodia. Here the preliminary survey was introduced which included the survey dates, location, sample, and limitations. Following, the surveys of 2010, 2012, and 2013 were introduced. This included demographics from each survey finding, along with socioeconomic factors of each survey year. Finally, statistical results were explained, and statistical results were shared, including mean, median, mode, variation, standard deviation, coefficient of variation, Pearson's R as well as Spearman's Rank statistical correlations. In Chapter 4, a summary of main findings was covered at length, and this discussed the author's conclusion to the survey works. The findings were then extended to another field and more research into English language programs for future employment.

As this thesis has verified, English education and ability can gain higher returns to investments in English education monthly, as well as to improving English proficiency to at least a high intermediate level (see Chapter 3). In Cambodia, some of the most highly sought-after jobs are those in TI. Some young people may have opportunities to obtain jobs in TI without high English ability or education, though they may not be able to keep their jobs without continuing English education and elevating their abilities. Since the author's goal was to investigate employment and income through English as a way to alleviate poverty, an empirical study was completed to verify the role of English in TI employment and income in SR, Cambodia. Significant findings from the research have been discerned. Variables directly related to income, such as total years of schooling, total years of English education, hours of English study, amount of money spent on learning English monthly, and English ability level show positive returns, seen in higher incomes and better paying jobs, in the TI of SR. Even in those variables indirectly related to income, such as frequency of English usage per month and frequency of native speaker visits, there is evidence that there is a positive effect of having English proficiency skills. This can be seen in a simple scenario: tourists visit the respective shop and use English. The employee uses English with guests almost every day during a month. That tourist has an enjoyable and fruitful exchange with the employee, and visits the shop again, or recommends it to friends and family, who in turn, visit the shop resulting in more money and therefore higher income for the shop staff.

During survey work for this research it was found that larger returns to investments in English education and proficiency can be seen within the tourist industry in SR. TI has more stability than agriculture, garment manufacturing, banking, or other professions. All of these findings are beneficial to the young labor force, especially in TI of developing countries. This continuous survey situation was a pioneer study as none like it has been done in the past, and it can be perpetually on-going; more reearch like it needs to be completed in TI of more developing countries and cities. The samples sizes the survey conditions were far from perfect, and the data collection situation was difficult. Nevertheless, the research team was able to gather some useful data from the tourist industry situation in Siem Reap because Cambodia is still safe and open to allowing surveys to take place. In addition to designing the questionnaires and collecting socio-economic data, the author has made several inroads into the discovery of English education and its impacts on employees' incomes and employment generation through 4 surveys in a developing country over 5 years. The survey experience led to a more precise understanding of the socio-economic situation and how to further create income and employment possibilities in a typical cultural tourist destination. In the above analysis and discussion, we have seen that the methods of classifying English proficiency have until now been unclear and difficult to quantify. As stated earlier, the author created a simplified language proficiency assessment for clear, numeric measurements, which have allowed exact and minute measurement of English proficiency. In turn, this enable the author to correlate and compare it statistically to other numeric variables such as income, years of English education, years of general education to verify its

importance. The author's significant findings show tht the income levels in the businesses in this survey have a definite ascending distribution order in 2010 and 2012, ranging from souvenir shops at the lowest, to restaurants to guest houses, hotels, and finally travel agencies at the highest. The 2013 survey icluded tuk-tuks as a 6th business to explore using the same constraints. Tuk-tuk drivers are self-employed, have less education, and are usually male. In 2013, this order shifted to restaurants, souvenir shops, guesthouses, hotels, tuk-tuks, and travel agencies. This order shows that higher echelon businesses are still at a high income level. As stated earlier, statistical results exhibit a positive relationship between income and English level in our businesses, even though English ability alone did not account for higher incomes. It is clear that a combination of total years and hours per week of English education, the amount of money spent on English education, all leading to better English proficiency assisted in obtaining better jobs and achieving better incomes. A positive connection between income and years of general education is also evident, and although proving causation is difficult, it can be said that there is a positive relationship between hours of English education, years of English education, usage of English per month, and income. One major point that must be made is that a young labor force can have better employment situations if they study English in school, spend money to learn English on their own, achieve an intermediate level of English proficiency. In addition, employment can also be generated by graduating from high school and attending at least some university.

During survey work the author verified several factors of general and English education and the socio-economic situation of TI employees in a developing country. The author correlated income with English communication ability levels in addition to other variables to examine how to create better income and employment situations in its role in employment. Interesting and useful data was gathered, much of which had never been collected previously, and it was a first step toward examining English communication ability between employment and income data in such a pioneer study. These useful results can help young members of the TI labor force in developing countries in the future. It is up to other researchers to further examine the connection between English communication ability, employment, and income. Then the true impact of these research endeavors can be discovered.

As seen earlier in this thesis, the author conducted a series of surveys within the Siem Reap area specifically for TI employees in Siem Reap, Cambodia to examine the role of human capital attainments in English with regards to their employment situations and incomes. Siem Reap was chosen as the survey locale for its proximity to Angkor Wat, a typical cultural tourism destination. As such, it attracts visitors from around the world annually, and many of them are from inner circle countries and use native English or EIL in travel. During earlier travel experience there in the early part of 2000's, the author found that English proficiency was low for tour guides and guesthouse staff, and realized that this could be vastly improved to achieve better business situations. In addition, Cambodia as a developing country has very little data on English education and its contribution to per capita income, which lends itself to more research in the future.

In order to conduct English education and English language proficiency research in the developing country of Cambodia it was necessary for the author to create a more concrete English-language assessment test. This was done by loosely basing the test on the CEFR, but by altering it to the needs of the author for use in Cambodia, which entailed adding a level 0 for no language proficiency and by making the test numeric so quantitative analysis could be performed. In this way, the author has made a contribution to both English language assessment research and also economic research by forming a link between the 2 fields so further statistical research can be achieved for both economics and the English language.

One of the goals of the author was to investigate employment and income through English as a means to alleviate poverty. To this end, the author has conducted a lengthy empirical study on generating employment and income through English in TI of 5 businesses over 5 years, from 2008-2013, to investigate their employment and income situations for the young labor force in Siem Reap. Although longitudinal studies have been completed using panel data in many developed countries, very few have been conducted using the same businesses over time in TI in developing countries. Although the respondents were different and random in each survey year, the author was able to justify that with general education, years of English study in school, and an expenditure for English study monthly, employees were able to obtain and maintain jobs that offer a livable income for the future in Cambodia. This study was unique in that it explored the changing TI-related business situation in downtown Siem Reap City over 5 years. Survey results show that, among employees, years of general education, years of English education, hours of English education, money spent for English study, English proficiency level, all have increased over the 5 year time period. In addition, income values seemed to correspond to increases in these variables. Statistical analysis has proven very valuable in this survey situation for authenticating the relationship between education variables and income. This research should continue in other TI businesses in every developing country to ensure that young members of the labor force can achieve better and brighter futures with English proficiency and education. Statistical research of this type can only be completed after rigorous survey work has been conducted in other TI among other developing countries of the world.

In addition to the above findings, the author also extended his research to the field of English for Specific Purposes (ESP), in an article regarding effective ESP Programs for future employment in tourism. In the article, the author used survey data to understand shortcomings in English communication ability and then discussed creating the most effective ESP programs possible by administrators to address these shortcomings. The article viewed previous research and then used this underlying research to discuss using data to obtain a large array of assessments from which a general consensus of some underlying problems in communication could be made. The assumption of the author was that the use of surveys is crucial to the understanding communication problems in a sample by testing the population individually, rather than relying on self-reporting of English proficiencies by respondents themselves. The assumption, as well as the author's assessment system

worked well in the field, and the author learned first had where some significant problems lay. This could most assuredly help in the training of the employees in English skills, where it counts most. This is another area of significance the author has made not only to data collection in general, but to both fields of economics and English assessment research. The author has only made the first steps into this type of research field, which combines Economics and English. Other researchers must continue this type of data collection, data analysis, data interpretation, and connecting this research directly to the needs of society into the future to help keep this research objective viable long into the future to help solve the problem of global poverty.

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Appendices

Appendix A. Questionnaire, Preliminary Survey, 2008

General Questions

1. Male or Female (circle one)

2. How old are you?

3. What province are you from?

4. How many years of English Education have you had? (circle one)

a. none b. less than one year c. 1-2 years d. over 2 years

5. Are you still studying English in some form? If yes:

a. by self b. with a teacher c. at school/university

6. How much money do you spend per month studying English?

7. Marital Status (circle one)

a. single b. married c. widowed d. divorced

8. Type of residence

a. live alone b. live with parent or family c. live in school dormitory

9. Do you have children?

a. yes b. no

10. Do you want your children to study English?

a. yes b. no

11. In which industry do you work?

a. restaurant b. hotel c. tour guide d. other (please write) _____

Industry-Specific Questions

(Travel/Tour Guide Agency, Restaurant, Souvenir Shop)

12. How long have you worked in a _____?

a. less than one year b. 1-2 years c. 3-5 years d. over 5 years

13. If your English ability has increased, has this made your salary better?

a. betterb. worse. c. no change d. not sure

14. Was your English ability an important factor in getting your job?

a. very important b. somewhat important c. not important

15. How often do native English speaker visit your _____?

a. always (several times a week) b. often (once a month to once every two months)

c. sometimes (once every three months or less) d. seldom (once a year or less)

16. What is your biggest need with using English at your job?

a. assisting _____ only b. explaining the costs c. giving other information (talking about tourist sites, other services, or general conversation)

17. How many people can use English at your _____?

a. all b. 2-3 c. one

18. Do you have to use English with more than one person at a time at your _____? If yes, how would you rate your confidence in using English?

a. very high b. high b. somewhat high d. low

19. On average, what is your monthly income?_____

20. On average, how many hours a week do you study English for your job?

a. less than one b. one to five c. over five

21. Do you have any opportunities to participate in English language training on the job?

a. always b. sometimes c. never

22. If you have opportunities, what kind of training?

a. speaking b. listening c. reading d. writing e. all

23. How long is your training?

a. less than one week b. more than one month c. on-going

24. How important do you feel English training is to improve your position?

a. very important b. somewhat important c. not important

25. How happy are you with your work in the _____?

a. very happy b. satisfied c. not satisfied d. unhappy

26. Did you have a previous job? If so, what was it? _____

What was your income? _____

27. Did you need English for that job?

a. yes b. no

28. Would you study English for more income?

a. yes b. maybe c. no

29. What are your top two motivations for continuing to work in an English related job?

1. _____ 2. _____

30. Is your father or mother in an English related job? If yes, do you:

a. earn more money than they b. earn less money than they c. no change

31. What kind of job earns the most money in Cambodia?_____

(Guest House, Hotel)

12. How long have you worked in a _____?

a. less than one year b. 1-2 years c. 3-5 years d. over 5 years

13. If your English ability has increased, has this made your salary better?

a. betterb. worse. c. no change d. not sure

14. Was your English ability an important factor in getting your job?

a. very important b. somewhat important c. not important

15. How often do native English speaker visit your _____?

a. always (several times a week) b. often (once a month to once every two months)

c. sometimes (once every three months or less) d. seldom (once a year or less)

16. What is your biggest need with using English at your job?

a. assisting with check-in only b. explaining the _____ fees/services c. giving other information (talking about tourist sites, other services, or general conversation)

17. How many people can use English at your _____?

a. all b. 2-3 c. one

18. Do you have to use English on the telephone for your work at the _____?

If yes, how would you rate your confidence in using English on the phone?

a. very high b. high b. somewhat high d. low

19. How would you rate your overall confidence level in English at your _____?

a. very high b. high c. somewhat high d. low

20. On average, what is your monthly income?_____

21. On average, how many hours a week do you study English for your job?

a. less than one b. one to five c. over five

22. Do you have any opportunities to participate in English language training on the job?

a. always b. sometimes c. never

23. If you have opportunities, what kind of training?

a. speaking b. listening c. reading d. writing e. all

24. How long is your training?

a. less than one week b. more than one month c. on-going

25. How important do you feel English training is to improve your position?

a. very important b. somewhat important c. not important

26. How happy are you with your work in the _____?

a. very happy b. satisfied c. not satisfied d. unhappy

27. Did you have a previous job? If so, what was it? _____

What was your income? _____

28. Did you need English for that job?

a. yes b. no

29. Would you study English for more income?

a. yes b. maybe c. no

30. What are your top two motivations for continuing to work in an English related job?

1. _____ 2. _____

31. Is your father or mother in an English related job? If yes, do you:

a. earn more money than they b. earn less money than they c. no change

32. What kind of job earns the most money in Cambodia?_____

Appendix B. Questionnaires, Surveys in 2010, 2012, and 2013

1. Questionnaire, August, 2010

Date: _____

Type of Shop_____ Survey Number_____

Interviewer Name: _____ _____

I. General Information
1. Sex: M F (circle one)
2. How old are you? _____
3. What province are you from? _____
4. Are you married? a. yes b. no
5. What is your living situation?
a. live alone b. live with parent OR family (husband/wife/children) c. live in school dormitory

6. Do you have children?
a. yes b. no
If yes, how many? _____ Do they go to school? a. yes b. no

II. General Education
7. How many TOTAL years of general schooling have you had (primary, secondary, university)?
a. (primary) 6 years b. (secondary) 9 years c. 12 years d. 16 years e. over 16 years
8. Did you graduate from high school? a. yes b.no
9. Did education help you get a job?
a. yes b. somewhat c. not sure
10. Did education help you get a higher salary?
a. yes b. somewhat c. not sure

III. English Education
11. Did you study English in school? a. yes b. no If yes:
a. primary b. secondary c. high d. all
12. If yes, how many hours per week? _____junior high? _____high?_____
university? _____
13. Do you study English now?
a. yes b. no
If yes, how?: a. by myself b. with a paid teacher c. at language school d. university
Go on to number 14 and 15
If no, go on to number 16.
14.What kind of materials do you use to practice/study English?
a. just talking b. books c. CD/DVD d. on the job only
15. If you study at an English school - how many hours per week? _____;

IV. Job Information
16. In what business do you work?
a. restaurant b. hotel c. guest house d. souvenir shop e.travel agency
17. How long have you worked in this business?
a. less than 6 months b. 1 year c. 2 years d. 3 years e. over 3 years
18. How happy are you with your work in your job?
a. very happy b. satisfied c. not satisfied d. unhappy
19. Did you have a previous job? a. yes b. no
If yes: what was it? _____
What was your monthly salary? $ _____

20. Was it easy for you to get this job?
a. yes b. no

V. Employment and English

21. Did you get a better salary with English?
a. betterb. a little better c. somewhat better d. not better
22. If your English ability has increased, could you find work easier?
a. yes b. no c. not sure
23. What was your salary when you first started this job? $ _____
24. Is it the same or better now? a. same b. better c. not sure
25. Did you need English for your previous job?
a. yes b. no
26. Do you need English for your present job?
a. yes b. no
27. How often do native English speakers visit your establishment?
a. always (every day) b. often (3 times per week) c. sometimes (once a month) d. seldom (once every three months) e. rarely (once a year) f. never
28. What is your biggest need with using English at your job?
a. brief greeting or check-in b. assisting with questions/costs c. explaining many details d. giving other information fluently (talking about tourist sites, other services, or general conversation)
29. How many people can use English at your establishment?
a. all b. 2-3 c. one d. none
30. How would you rate your confidence in using English?
a. very high b. high b. somewhat high d. low
31. Do or did you have any opportunities to participate in English language training programs on the job with teachers?
a. yes b. no If yes: a. always (weekly) b. sometimes (monthly) c .rarely (yearly) d. never
32. If so, what kind of training?
a. general English b. hospitality English c. reading and writing d. grammar and translation e. speaking and listening
33. How long is or was your training program?
a. one day b. one week d. one month e. three months f. on-going

VI. Income and Expenditure

34. What exactly is your monthly income? $_____
35. What is your family's monthly income? $ _____ (estimate is OK)
36. How much money do you spend on necessary items (food, rent, clothing, transportation, shampoo, etc)? _____per month
37. How much money do you spend on studying English? _____ per month

VII. Potential Employment

38. With English, will you be able to get a better job after 5 years?
a. yes b. maybe c. no
39. With English, will your salary go up in 5 years
a. yes b. maybe c. not sure
40. Has your salary increased from 5 years ago?
a. yes b. no c. not sure

VIII. Questions for Business Owners/Managers

41. Type of business _____
42. When was it started? _____
43. What are the operation hours? _____

44. How many customers per day? _____
45. How many employees do you have? _____ with English ability? _____
46. How many employees did you have have 5 years ago? _____
with English ability? _____
47. How many employees will you need in the next 5 years? _____
48. How many will you need in the next 5 years with English ability?
_____

49. What are your future goals, income goals, and career plans?
_____
_____
_____
_____

50. What level of English ability does this person have now?

0	1	2	3	4	5
None	Low Beginning	High Beginning	Low Intermediate	High Intermediate	Advanced

2. Questionnaire, March, 2012

Date _____

Type of Shop _____ Survey Number _____

Interviewer Name _____ _____

1. i.M ii.F
2. Marital status i.married ii.single iii.divorced
3. Children i.no ii.yes (How many? _____)
4. Living i.alone ii.with parents iii.with husband/wife/children
5.Province i.Siem Reap ii.Phnom Penh iii.other _____
6. Highest educational level i.primary ii.secondary ii.high school iv.university
7. Years of English study in school _____ years. Hours of English study per week _____.
8. Languages learned in school _____
9. Languages spoken i.Khmer only Khmer and: ii.English iii. Japanese iv.French v.Chinese vi.Thai vii. other _____
10. Length of time at this job _____ years _____months
11. Previous job? i.no ii.yes (What? _____)
12. Previous salary $_____ per month week (circle)
13. Hours per week of work at job now ____hours per week
14. Requirements for this job (list all) _____
15. Why tourism job? _____
16. Biggest use of English at job: i.can only help with simple questions ii.can give more information iii.can explain in more detail iv.can explain things and understand about 75% v. can understand 100% and explain in detail fully
17. Frequency of English speaker visits: i.always (every day) ii.often (3 days per week) iii.sometimes (once per month) iv.rarely (once per year) v.never
18. Did your English ability help you find this job? i.yes ii.no iii.not sure
19. Has your salary, living conditions improved since you have this job? i.yes ii.no iii.not sure
20. Your salary: $_____ per month

21. Money spent per month on rent, toiletries, etc. $ _____ per month
22. Money spent on studying English per month $ _____per month

English proficiency. (Interviewer: start recording, then say the questionnaire number from the top.)

Please introduce yourself in English following the questions below.
1. What is your name?
2. How old are you?
3. Where do you live?
4. How many people are in your family?
5. How long have you been working at this job?
6. Why did you choose a tourism job?
7. What do you have to do at your job?
8. Do many English-speaking tourists visit your business?
9. Did you need to have good English to get your job?

3. Questionnaire, March, 2013

Type of Shop _____ Survey Number _____

Interviewer Name _____ _____

1. i.Male ii.Female
2. How old are you? _____
2. Are you married? i.married ii.single iii.divorced iv.widowed
3. Do you have children? i.no ii.yes (How many? _____)
4. What is your living situation? i.alone/with friend ii.with parents iii.with husband/wife/children iv.other
5. What province are you from? i.Siem Reap ii.Phnom Penh iii.Other
6. What is your highest educational level? i.primary(6 years) ii.secondary(9 years) ii.high school(12 years) iv.university(16 years)
7. Did you graduate from high school? i.yes ii.no
8. How many years did you study English in school? _____ years. How many hours did you study English per week? _____ hours.
9. What languages did you learn in school? _____
10. What languages can you speak now? (circle all) i.Khmer only ii.English iii. Japanese iv.French v.Chinese vi.Thai vii. other _____
11. How long have you worked at this job? _____ years _____months
12. Did you have a previous job? i.no ii.yes (What? _____)
13. What was you previous salary? $_____ per month
14. How many hours per week do you work now? ____hours per week
15. What did you need to get this job? (for example: interview, written test, language skill, experience) _____
16. Did your English ability help you get a job? i.yes ii.no iii.not sure
17. Is your salary better with English proficiency? i.yes ii.no iii.not sure
18. Do you think you can get a better job with English in the future? i.yes ii.no iii.not sure
19. What is your level of understanding and communication in ENGLISH ONLY? i.10% ii.25% iii.50% iv.75% v.100%
20. How do you use English at your job?
    i. I can only use some English words
    ii. I can say short sentences, but my English is very broken and I have little confidence
    iii. I can explain in more detail, and I have some confidence
    iv. I can explain a lot of things and have more confidence but I make mistakes

v. I can understand 100% and explain in detail fully with confidence

21. How often do English speakers visit your job? i.every day ii.3 days per week iii.once per month iv.once per year v.never
22. What do you think your own English level is? i.low beginner ii.high beginner iii.low intermediate iv.high intermediate v.advanced
23. What is your salary? $_____ per month
24. How much money do you spend per month on rent, toiletries, etc? $ _____ per month
25. How much money do you spend on studying English per month? $ _____per month

English proficiency. (Interviewer: push record. Say the number from the top. Ask the person to introduce him or herself in English.)

Appendix C. Sample Size Calculation

$$n \geq \frac{N}{\left(\frac{e}{k}\right)^2 \frac{N-1}{P(1-P)} + 1}$$

n = ***sample size***
N = ***size of population***
e = ***tolerance error (5%, 0.05)***
k = ***confidence coefficient (confidence interval 95%, 1.96)***
p = ***expected percent of respondents which are expected to respond affirmatively***

The confidence coefficient, k corresponds to the degree of confidence we hope to obtain after results are tabulated. 95% confidence is the most widely accepted and used for this paper. P = the number of respondents expected to respond affirmatively. As this study was only geared towards collecting data only for hospitality businesses, it was only relevant to collect data for those businesses. Unfortunately, the total number of souvenir shops (in Siem Reap) was unavailable, and the author could only make an attempt at counting the souvenir shops in a single area, but by no means could count city/area-wide due to time and budget constraints. The relatively small sample size could ensure that our results are unbiased and accurate.