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The Influence of English Communication Ability on Income in the Tourist Industry of Siem Reap, Cambodia

Morrow, J.S.[*]
Prefectural University of Kumamoto (Japan)

ABSTRACT

Siem Reap, Cambodia's tourism growth has been remarkable. Since most tourists are native English speakers, tourist industry (TI) employees need high levels of English communication ability (ECA) to handle tasks effectively, but data in Cambodia has been difficult to find. To fill this gap, the author wanted to collect employees' general and English education information during interviews in six TI related businesses, to assess their ECA, and to statistically examine interactions of English variables with income. The author created an English assessment test loosely based on the Common European Framework of Reference for Languages (CEFR). Statistical analysis found direct positive influence from English ability on income. Findings also showed that employees who have advanced levels of English ability earn USD200 per month, double the salary of garment workers. This type of research can be used profitably over the Internet in many research situations.

Keywords: Income; English Communication Ability; Assessment; Analysis
Running head; Influence of English Ability on Income

[*] E-mail address: jeffmorrow@pu-kumamoto.ac.jp

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Introduction[1]

For years, many research studies have examined the effect of general education on employment and income. Building on Becker (1964), who investigated the influence of human capital on employment, but more on income, Lee (2005) examined human capital stock in Korea and found higher returns to investments in education and human capital. Casale and Posel (2010) studied the role of English in South African in general where the language of business is English and found that those English language speakers of high ability earned almost 55% higher incomes than non-proficient English users. The author's goal was to build on this research by examining English communication ability (ECA) as a part of human capital that can lead to better incomes, but wanted to do so in developing countries in TI. Upon investigation, some research on English education, employment, and income was found; however, there are few studies on the direct impact of English communication ability on employment and income in the TI in developing countries. Many researchers study ECA and income in immigration and use self-reported data on censuses or large-scale surveys to gather ECA data. However, this is not accurate because self-reporting is very subjective, leading to over or underrating of one's own English level. Some studies use test scores, such as TOEIC or TOEFL as proxies for ECA levels. However, test scores also do not accurately represent a person's natural spoken language ability. The author realized a new system of assessment had to be created, and loosely based the new assessment system on the Common European Framework of Reference for Language (CEFR).

The main purpose of this study was to use English ability as a statistical variable in order to examine its influence on employment and income in developing country tourism. The research objectives were: 1) to gather socioeconomic background information of employees in tourists businesses in Siem Reap, Cambodia, 2) to accurately measure English communication ability of the tourist industry employees using a numeric assessment tool created by the author, and 3) to statistically examine ECA as a variable along with other variables to check data and verify influence of English ability on income and employment. To that end, the research hypothesis follows: English communication ability, comprised of years of English education, hours of English education, English expenditure, has a direct positive influence on income in Siem Reap, Cambodia TI.

1. Literature Review

1.1 Related Literature

Some researchers (Chiswick & Miller, 1999) have examined language, English proficiency, and bilingualism and earnings at length. Ono and Savodny (2007) studied the role of English ability in IT among immigrants to the U.S. and found lower IT usage

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rates, as well as incomes, by those with lower English ability. Bleakley and Chin (2003) focused on English proficiency and earnings of childhood immigrants to the U.S. The study found that a large number of immigrants who arrived in the U.S. as children were able to learn English more readily than those who arrived later. Regression results found that one unit of increase of English proficiency increased wages by 39%; those who spoke English *very well* had a 33% increase in wages over those who spoke only *well.* Hence, there was a significant advantage to arriving in the U.S. earlier for learning English and also increasing wages in the long run. Results show an advantage to arriving in the U.S. earlier and having English proficiency. Bellante and Kogut (1998) discuss the earnings of immigrants based on the effects of language ability and working experience. Those respondents who had a reported ability of *"not well,"* earned 20% less than the base group, and those who reported *"not at all"* earned 27% less. Those who spoke English *"well"* could elevate earnings the longer one is in the in US; however, English levels 2 and 3 years show no earnings elevation. Estimates show that immigrants who arrived in the US at 30 earned 2.25% more than those who arrived at age 55. Author and Lwin (2013) and Author (2014) show correspondence between higher levels of English ability, longer years and hours of English education and income in Siem Reap, Cambodia TI employees. Yadasiputra (2015) examined the role of emotional intelligence and emotional labor in front desk employees in a casino in Macao, China. While not specifically English ability, emotional intelligence is linked to public persona, which includes communication. Hotel manager of course look to hire employees that are ability to create such persona as it increases customer satisfaction. While also not specifically English and not tourism, DiPaolo & Tansel (2015) have discovered high economic value of skills in a foreign language in Turkey, which has international trade, high tourism arrivals, and many FDI projects. English is evident in most of the FL speakers there and is usually known by white-collar employees who acquire most English prof in schools (79%) although some learn with a teacher or privately. Empirical test returns to English proficiency are positive and increasing between 20 and 46%.

2. Study Location, Sample, Instruments, and Method[2]

3.1 Study Location

The survey was conducted from March 15-18, 2013 around the Old Market area in downtown Siem Reap City. Siem Reap is located 324 kilometers Northwest of the capital of Cambodia, Phnom Penh (Fig. 1). The survey area locations can be found in Fig. 2. Tuk-tuks were located throughout Siem Reap City, including Old Market area, Night Market, and New Night Market. Souvenir shops were located in Old Market only. Restaurants were located around Old Market, Pub Street, and Pub Street Alley; guesthouses were located on Wat Bo Road, Street 2, Street 3, and Oum Khun Street. Hotels were located on National Road 6 and Angkor Wat Road; and travel agencies were located along on Sivath Boulevard, Street 5, and Oum Khun Street; (see Fig. 2).

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Figure 1: Map of Cambodia
Source: Map of Cambodia, yatesweb.com, 2011.

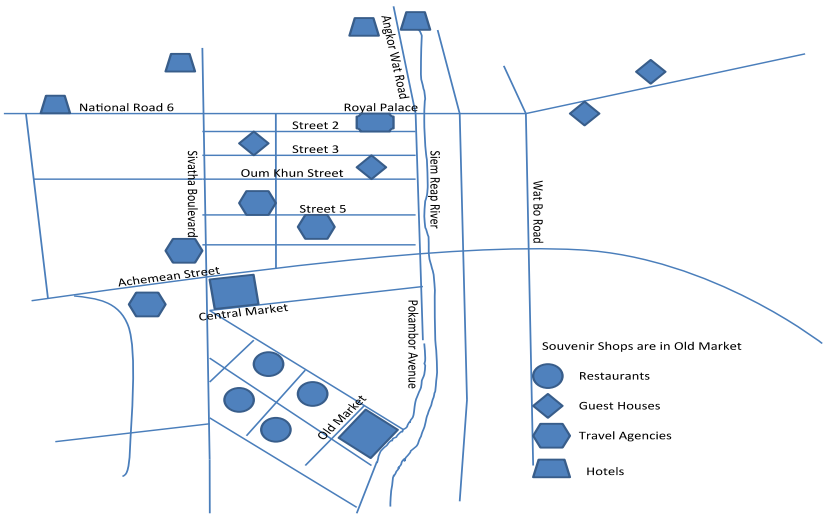

Figure 2*:* Map of Survey Areas of SR City, 2013
Source: Created from survey data, 2010, 2012, and 2013.
Tuk-tuks are located throughout SR City.

3.2 Sample

This study used two stages to select the sample. First, because data on total numbers of tourism employees was unavailable, the total number of locations was found and then locations were chosen randomly from this batch. Next, employees were chosen randomly from these locations. In order to determine the sample size for a random population for this study, 95% confidence level and a margin of error of 11 were used

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in calculations to determine the sample number necessary to obtain interviews. Fortunately all of the employees required agreed to participate in face to fact interviews for the study. This study focused on employee English usage and income, so owners and managers were excluded. The sample size for each location can be found in Table 1.

Table 1. Sample, 2013

Location	Population (2013)	Sample Size 2013
Souvenir shops	320	60
Restaurants	150	57
Guest houses	252	34
Hotels	125	49
Travel Agencies	150	23
Tuk-tuks (2013 only)	500	69
Total		n=292

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

3.3 Instruments

The study used two data collection instruments: 1) written questionnaires for answering questions in face-to-face interviews, and 2) hand-held IC recorders used to record spoken English for further assessment using a more accurate language assessment system. The questionnaire contained 25 questions relating to socioeconomic background including age, years of schooling, years and hours of English education, income, and expenditure. The last question of the questionnaire included an ECA assessment test, where the assistants recorded self-introductions given by TI employees in English using IC recorders.

3.4 Data Collection Method

In 2008, 2010, 2012, and 2013, the author conducted surveys in Siem Reap to collect data on family, living situation, general and English background education, English communication ability, and income for the purpose of examining the relationship of ECA and income. To save space, this paper will only examine the survey of 2013, which was completed in six tourism-related businesses. Those businesses were: 1) tuk-tuk drivers, 2) souvenir shops, 3) restaurants, 4) guesthouses, 5) hotels, and 6) travel agencies. The businesses were chosen because they were undisputedly tourism businesses and stood out as being so. A research team was assembled and five students from Angkor University in Siem Reap, Cambodia wee chosen to be assistants.

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To avoid interviewer bias, the assistants were trained in appropriate interviewing techniques. They were to insist the participants answered questions themselves with as little interaction as possible. When problems arose the assistants could translate material into Khmer. The students asked each participant to give a self-introduction, which was recorded. The questionnaires and IC recorders were all tested prior to the survey.

Because ECA can be used as a variable for examining for determining its role in employment and income, and because an accurate numeric scale is lacking in literature, the author created a numeric system for measuring ECA loosely based on the Common European Framework of Reference for Language (CEFR). The CEFR contains levels on a concrete scale, which is quite clear (Table 2). The author emulated this feature, but changed the scale slightly to be more numeric, and also included levels from (0) for those with no ability whatsoever, to (5) for those with advanced ability. In this way, the scale can be quantified and calculated accurately to verify its importance with a large population. The author's assessment can be found in Table 3.

Table 2. 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: Adapted from CEFR, Council of Europe for Language Education, 2001.

Table 3. The Author's Variation of English Ability Assessment

0	No or little ability - can't communicate at all
1	Beginner - can only understand and use familiar everyday expressions
2	High Beginner - can understand and use expressions within everyday relevance
3	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: Author, 2013

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4. Demographics and Results[3]

4.1 Demographics

Before moving onto results, important demographics will be offered. As can be seen in Table 4, the majority of TI employees were in the 20's. This is probably because TI is a very faced-paced industry and has much turnover. However, TI can provide stable employment for those just entering the workforce. Of the total, 24% were age 30 and over and just five percent were over 40. Males comprised 45% of the TI participants, and females 55%. In 2013 most participants (69%) were from Siem Reap and 6% were from Phnom Penh. A few (25%) were from neighboring provinces such as Battambang. The majority (58%) was single, while 41% were married. Of the married employees, 37% had children. As for living situation, 44% lived with family, that is, mother, father, husband, wife, and children, while 36% lived alone, and 18% lived in some kind of dormitory or group housing. The demographics are important and could indicate that employees want to obtain more stable employment and higher wages as some of them are married and have children.

Table 4. General Demographics of Tourism Labor Force, Siem Reap, 2013 (number)

Item		Souvenir Shops	Rest.	Guest-Houses	Hotels	Travel Agencies	Tuk-Tuks
Age	**10-19**	5	2	4	1	2	1
	20-29	46	48	41	23	39	23
	30-39	9	7	8	9	12	33
	40 +	0	0	2	1	1	12
	Total	***60***	***57***	***34***	***49***	***23***	***69***
Sex	**Male**	7	17	15	16	13	62
	Female	53	40	19	33	10	7
	Total	***60***	***57***	***34***	***49***	***23***	***69***
Province	**Siem Reap**	44	37	25	32	18	46
	Phnom Penh	2	3	1	8	0	3
	Other	14	17	8	9	5	20
	Total	***60***	***57***	***34***	***49***	***23***	***69***
Marital	**Married**	25	12	14	20	6	43
	Single	35	45	20	29	17	26
	Total	***60***	***57***	***34***	***49***	***23***	***69***
Children	**Yes**	22	10	13	19	5	39
	No	38	47	21	30	18	30
	Total	***60***	***57***	***34***	***49***	***23***	***69***
Living	**Alone**	13	16	6	12	8	51
	W/Family	37	33	17	18	9	14
	Dormitory	10	8	11	17	6	0
	Other	0	0	0	0	0	4
	Total	***60***	***57***	***34***	***47***	***23***	***69***

Source: Derived from survey data, 2013

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4.2 Statistical Results

At this juncture the paper will examine the results from simple statistical analysis. Seven variables related to English education were calculated with five statistical measures post-survey. The variables used, with abbreviations for simplicity were: 1) monthly salary in US dollars, *income*, 2) English communication ability levels, *Eng. Comm*., 3) years of schooling*, Ttl. Yrs. Edu*., 4) total years of English education in school, *Yrs. Eng. Edu.,* 5) hours of English education in school per week, *Hrs. Eng. Edu.,* 6) total expenditure of English study per month, *Eng. Expen.,* 7) and days per month English is used, *Eng. Use/mo.*

The five statistical measures used in calculations were: 1) mean, 2) median, 3) mode, 4) standard deviation (SD), and 5) coefficient of variation (CV), which is the ratio of the SD to the mean. Spearman's rank correlation, which tests two sets of data in a ranked order, was also administered for further verification. The results will be presented according to the type of business and in order from lowest English level to highest English level to more fully examine English level and English education and its influence on income. The analysis will give the resulting values from calculations of variables with measures in the following order: 1) income, 2) English communication ability level, 3) total years of schooling, 4) total years of English education, 5) hours of English study in school, 6) expenditure for English study, and 7) the number of days English is used per month. The results will examine the mean, median, mode, SD and CV in each variable for each business.

In the 2013 survey, tuk-tuks, or motorized rickshaws' mean income was the 2nd highest per month at USD192.90, just under that of travel agencies (Table 5). The median income value was 200 and the mode was 150. The mean English ability value was 2.4, with a median and mode both of 2. The SD was 0.76 and the CV was 0.31. Mean values for total years of education were the lowest of the six businesses at 9.58. Median and mode were both 9, while SD was relatively low as was CV. Year of English education value was 1.92. Median and mode values were both 2. The SD value was 1.21 and the CV was 0.62. Mean value for hours of English education was 9.17; median value was 6 and mode was 5. The SD value was 2.55 and the CV value was 0.26. The mean value for English expenditure was USD6.78, with a median of 1.5 and a mode of 0. The SD value for English expenditure was large at 10.10, and CV was 1.49. As for English usage per month, TT's used English an average of 27 (median and mode both at 30) days per month.

Table 5. Statistical Results of Tuk-tuks, 2013

	Mean	Median	Mode	SD	CV
Income (US$)	192.90	200	150	80.52	0.42
Eng. Comm.	2.44	2	2	0.76	0.31
Ttl. Yrs. Edu.	9.58	9	9	2.55	0.27
Yrs. Eng. Edu.	1.96	2	2	1.21	0.62
Hrs. Eng. Edu.	9.17	6	5	2.55	0.26
Eng. Expen.	6.78	1.5	0	10.10	1.49
Eng. Use/mo	27.49	30	30	6.64	0.24

Source: Caculated from survey data, 2013

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Souvenir shop staff had a mean income of USD144, which was 2nd from lowest (Table 6). The median income value was 100 and the mode was also 100. This was a change from both 2010 and 2012 in which souvenir shops had consistently the lowest income in the businesses under study; however, the present median and mode values agreed with the assumption of the income value. The mean English ability for souvenir shop staff was 2.7, 2nd from lowest in the 2013 survey, while median and mode for English were both 3. The SD was quite low, as was the CV. The mean value for total years of education was 12.03 with a median and mode both at 12. SD value was 3.15 and CV value was 0.26 and quite low. SS staff had the 2nd from lowest mean years of English education at 2.27 (both median and mode were at 2). Year of English education SD value was quite low at 1.59 and the CV was 0.70. Souvenir shop employees had 2nd from lowest hours of English education at a value of 7.5 (median and mode at 5) in 2013. The SD value was 6.72 and the CV value was 0.89. The value English expenditure value was 11.71, the median was 5 and the mode was 0. The SD value was slightly high at 20.12, showing dispersion, and the CV value was 1.72. SS staff used English an average of 28 days per month, with a median of 30 and also a mode of 30. SD 5.87, while CV was 0.21 (see Table 6).

Table 6. Statistical Results of Souvenir Shops, 2013

	Mean	Median	Mode	SD	CV
Income (USD)	144.05	120	100	64.14	0.45
Eng. Comm.	2.70	3	3	1.01	0.37
Ttl. Yrs. Edu.	12.03	12	12	3.15	0.26
Yrs. Eng. Edu.	2.27	2	2	1.59	0.70
Hrs. Eng. Edu.	7.50	5	5	6.72	0.89
Eng. Expen.	11.71	5	0	20.12	1.72
Eng. Use/mo	28.25	30	30	5.87	0.21

Source: Caculated from survey data, 2013

Restaurant employees[4] had the lowest mean income of all the businesses under study in 2013 at USD131.39 (Table 7). Income median and mode values were 100. The SD value was 64.09; the CV is low at 0.49. Restaurant participants' mean English ability was 2.8, the 3rd from lowest in the 2013 survey; median and mode values were both 3. The SD value was 0.92 and the CV value was 0.33. Median and mode values were both 12. The SD at 3.53 was relatively low, and the CV value was low at 0.30. As for years of English education, the mean value was 2.4; the median and mode were both 3. SD was slightly high at 1.13; however, CV values were 4.47. Hours of English education had a mean value of 9.6, or 3rd from highest. Median value was 6 and mode was 5. The SD value for hours of English education was quite high at 8.23, but the CV value was 0.86. Restaurant employees' mean English expenditure value was 13.78, but median was 8 and mode was 0. The English usage per month SD value was 15.35, and the CV value was high at 1.11. Restaurant staff had a mean of 30 English use per month; median and mode values were at 30 as well. The SD value for English use per month was slightly high at 6.81, but the CV value was 0.25.

Table 7. Statistical Results of Restaurants, 2013

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	Mean	Median	Mode	SD	CV
Income (US$)	131.39	100	100	64.09	0.49
Eng. Comm.	2.80	3	3	0.92	0.33
Ttl. Yrs. Edu.	11.80	12	12	3.53	0.30
Yrs. Eng. Edu.	2.39	3	3	1.13	4.47
Hrs. Eng. Edu.	9.63	6	5	8.23	0.86
Eng. Expen.	13.78	8	0	15.35	1.11
Eng. Use/mo	30	30	30	6.81	0.25

Source: Caculated from survey data, 2013

Guesthouses (Table 8) had the 3rd from highest income in 2013 at a mean value of USD169.71. The mean income value was 169.71, the median was 150, and the mode was 200. The SD value for income was high at 80.70; the CV value was 0.48. Guesthouse staff English ability mean value was also the 3rd from highest at 2.9; the median value was 3 as was the mode. Here, the SD and CV were quite low at 0.88 and 0.31. Total years of education mean value was 12.85. The median was 12 and the mode was 16. The SD value was 2.83, slightly high, while the CV was 0.22. The years of English education mean value was 3rd from highest at 3.42 and the median was 3 while the mode value was 2. The SD value was 2.31, and the CV value was 0.68. The hours of English education value was 2nd highest in 2013 at 10.15, with a median value of 8.5 and a mode of 14. In addition, the SD was quite large at 8.09, the CV value was 0.80,. The English expenditure in 2013 was also 3rd highest for guesthouses, and had mean value of 11.55; however, the median was 6 and the mode was 0. The SD value for English expenditure was 11.70. Turning now to English use per month, in 2013 guesthouse staff used English a mean of 28.94 days per month. This variable had a median of 30 and also a mode of 30. The SD value for English use per month was 4.30 (slightly high), and the CV value was 0.15.

Table 8. Statistical Results of Guesthouses, 2013

	Mean	Median	Mode	SD	CV
Income (US$)	169.71	150	200	80.70	0.48
Eng. Comm.	2.88	3	3	0.88	0.31
Ttl. Yrs. Edu.	12.85	12	16	2.83	0.22
Yrs. Eng. Edu.	3.42	3	2	2.31	0.68
Hrs. Eng. Edu.	10.15	8.5	14	8.09	0.80
Eng. Expen.	11.55	6	0	11.70	1.01
Eng. Use/mo	28.94	30	30	4.30	0.15

Source: Caculated from survey data, 2013

The mean income value for travel agencies (Table 9) was 204.78; median was 185 and mode was 200. However, the SD was very high (99.07) the CV was low at 0.48. The English ability value for travel agencies was 3.43. The median and mode were both 4. In addition, the SD was acceptable (0.90), and CV was also quite low (0.26). The mean value for total years of education was 13.74. Median and mode values were both 12. The SD value was 2.03, and the CV was 0.15. The years of English education mean value was 3.95; the median was 3 and the mode was 2. The SD was 2.26 and the CV was 0.57. Hours of English education mean values reached 6.75. Median value for hours of English education was 4 and mode was 2. The SD value for hours of English was 9.79,

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and the CV was 1.45, greater than +1, indicating high variance. English expenditure had a mean value of 11.39. The expenditure median was 8, and mode was 0; for English usage per month, travel agencies had mean, median, and mode values of 30, indicating prefect values. This value had no variation, and as such the SD and CV values were 0.

Table 9. Statistical Results of Travel Agencies, 2013

	Mean	Median	Mode	SD	CV
Income (US$)	204.78	185	200	99.07	0.48
Eng. Comm.	3.43	4	4	0.90	0.26
Ttl. Yrs. Edu.	13.74	12	12	2.03	0.15
Yrs. Eng. Edu.	3.95	3	2	2.26	0.57
Hrs. Eng. Edu.	6.75	4	2	9.79	1.45
Eng. Expen.	11.39	8	0	14.31	1.26
Eng. Use/mo	30	30	30	0	0

Source: Caculated from survey data, 2013

The mean income value in hotels was USD191.74 (Table 10); the median was 170, and the mode was 200. However, the SD was very high at 145.85however the CV was 0.77, which indicates low variance. Hotels had the highest English ability in 2013, with a mean of 3.6; median and mode values were both 100. The SD was extremely low (0.70) as was the CV value (0.20). Total years of education mean values were 13.14, while median and mode values were 12; SD was relatively low (2.75) and CV was low (0.20). Years of English education had a mean value of 5, with median at 4 and mode at 2. The SD value was quite high at 3.68, but the CV had a value of 0.72. Hours of English education values were a mean of 14.14, a median of 7 and a mode of 6. The SD values are quite high at 15.13, and the CV = >1 at 1.07, showing high variance. English expenditure mean value was at USD13.78; median was 9 and mode 0. SD values for English expenditure were 15.89, showing much dispersion, and CV values were also greater than +1. English use per month variable has a mean of 27.57 with median and mode both at 30. Most respondents used English around 28 days per month. The SD was 6.73, while CV value 0.24.

Table 10. Statistical Results of Hotels, 2013

	Mean	Median	Mode	SD	CV
INC (US$)	191.74	170	200	147.85	0.77
ECA	3.58	4	4	0.70	0.20
TYS	13.14	12	12	2.75	0.20
YEE	5.10	4	2	3.68	0.72
HEE	14.14	7	6	15.13	1.07
E$	13.78	9	0	15.89	1.15
EDM	27.57	30	30	6.73	0.24

Source: Caculated from survey data, 2013

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5. Discussion

As the above data tables show, in most cases this quantitative study verifies a correspondence between longer years of English education, more hours of English education, higher English expenditure per month, and use of English monthly and income, important when considering methods for increased incomes. Much of the data are within acceptable ranges, explain the mean quite well, and are show a relationship between the variables and income. However, the data do not completely verify the *direct influence* of English ability on income in some cases. For example, in tuk-tuks it cannot readily be said that there is a *direct* positive influence of English ability on income because tuk-tuk drivers have low English ability and yet high incomes. Because of this, the author realized that there was some other force at play determining income for tuk-tuk drivers. Tuk-tuks are generally one-man operations and easy to start and maintain. They have no offices or time schedule, and can operate anywhere and at any time, and some drivers are quite outgoing and energetic. Therefore, they are capable of working hard to make extra money and are an integral part of the TI situation in Siem Reap. It may be concluded, therefore, that English ability had some influence on *employment*, as Tuk-tuk drivers must be friendly, talkative, and knowledgeable to attract customers. In Siem Reap TI, better English communication can attract international tourists who spend money, thereby increasing business revenue and individual incomes. In this way, it can be said that there certainly is an indirect influence of English communication ability in employment and income especially in the lower echelon businesses.

In souvenir shops, the mean income was USD144, or 2nd from lowest (Table 6). Both median and mode income values were 100. Souvenir shops had consistently the lowest income in the businesses in 2010 and 2012; however, the new data differ. Perhaps this is due to the fact that many travelers took advantage of the low prices and the collection of new shops in the New Night Market in SR, most likely from word of mouth and therefore spending more money, allowing souvenir shop employees to earn more. As in the case of tuk-tuk drivers, *direct* positive influence on income is difficult to verify. It could be that *lack* of English education, and hence lower English ability, has a *negative* influence on income. However, souvenir shop staff only had few years and hours of English study, and this was evident in communication as they could negotiate price very well, but could not carry on longer in-depth conversations.

In restaurants the mean income was USD131.39 (Table 7), the lowest of the locations. Restaurant participants had a mean English ability of 2.8 (the 3rd from lowest in the 2013 survey) and a mean total year of education value of 11.80 (the 2nd lowest of the survey), indicating that not all restaurant employees graduated from high school. Data indicates that some had around nine hours of English in school but most probably had fewer. The SD value for hours of English education was quite high at 8.23, but the CV value was 0.86, showing quite accurate predictions. Restaurant employees' mean English expenditure value was 13.78, showing that few employees spent much money per month to study English, which shows up in their low incomes. The English usage

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per month SD value was 15.35, and the CV value was high at 1.11; both of these values reinforce the varied nature of spending money per month to study English. In restaurants, too, it is difficult to find a *direct* positive influence on income with English ability as restaurant employees had the lowest incomes, and 3rd from lowest English ability. Interestingly, restaurant staff had a mean of 30 for English usage per month, indicating that employees absolutely used English every day, which contributed to their English ability but not to their income, as could be seen by the fact that restaurant participants were the lowest income earners in 2013. Again, as in souvenir shops, perhaps the lack of English ability has a negative influence on incomes.

In guesthouses, the years of English education mean value was 3rd from highest at 3.42 and the median was 3 while the mode value was 2; many guesthouse participants felt the need to study English in school for better employment. Data show from previous years that guesthouse employees were apt to study further and commit more monthly expenditure to English education to get better employment and better incomes. Guesthouse employees seemed to be on the cusp between lower echelon and higher echelon businesses. Some had quite good English ability and income, and were working hard to support families. The hours of English education value was 2nd highest in 2013 at 10.15, with a median value of 8.5 and a mode of 14. These differing values indicate that many participants studied varied hours of English in schooling, but the mean value of total years of education indicates most guesthouse employees graduated from high school. Both mean income and mean English ability in guesthouses were 3rd from highest in guesthouses, as were years of English education, indicating correspondence, and perhaps some *direct* positive influence of English ability on income, and certainly employment.

The SD for English ability in travel agencies was (0.90), and CV was low (0.26) suggesting a good model fit in this case. The mean value for total years of education was 13.74, the longest years of schooling of the locations under study and can show a correspondence with higher incomes as well. Median and mode values were both 12, a fact that could indicate all participants graduated from high school. The years of English education mean value was 3.95; the median was 3 and the mode was 2, indicating that most had around 3-4 years of English education in school. The SD was 2.26, which is fairly acceptable, and the CV was 0.57. Hours of English education mean values reached 6.75, which was quite low considering that employees had a higher English ability; however, this could be explained by the nature of the travel agency industry. Many employees must communicate with overseas tour operators and customers. English expenditure had a mean value of 11.39. Here the median was 8, and mode was 0. This of course shows that there was a high variability in the expenditure participants set aside to study English, and means that not all respondents spent similar expenditure on monthly English study. In fact, many did not spend money at all to learn English. This indicates that they learning English mostly in school, and also while working. All travel agency participants used English every day. The English usage per month, value shows that they must communicate in English or risk losing income and employment. This data indicate that to obtain and maintain employment in travel agencies, one must be prepared to use English daily. In travel agencies, English ability is

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very important, and therefore it can be said that there is a *more direct positive influence* of English ability on income and employment.

Hotels had the highest English ability in 2013, with a mean of 3.6; median and mode values were both 100. The SD was extremely low (0.70) as was the CV value (0.20), indicating consistency with this data situation; outcomes here too were very close to the author's assumptions. Hotels in the 2013 survey were 5-star, located long National Road 6 and Airport Road. Travel groups and foreigners often use 5-star hotels because of safety, location, and amenities. The author expected to find that English ability and total years of education values corresponded to income values, especially in 5-star hotels, as these employees needed English as well as education to get jobs. It appeared to the author that hotel employees had quite good employment situations if they possessed a high school graduation, had an English ability of at least 3, and had studied English in school. Total years of education mean values were 13.14, while median and mode values were 12; SD was relatively low (2.75) and CV was low (0.20) indicating a good model fit. This shows that most employees definitely graduated from high school, and many probably had more years of schooling. Hours of English education values were a mean of 14.14, a median of 7 and a mode of 6, values far below the mean. This indicates many outliers due to the varied and inconsistent English study situation in schools. It also indicated quite a *direct positive influence* of English ability on employment and income.

This study has enabled to the author to receive a wider view of the TI employee situation in SR. The study has also allowed certain predictions to be made: even though the direct positive influence of English on income could be verified to the 100% level, those with higher English communication ability, longer total years of education, more years of English education, more hours of English education, and more English expenditure have the potential to obtain better employment and earn higher incomes in higher echelon business such as hotels and travel agencies. Therefore, TI employees should receive more schooling and English education in specialized schools. They should also study privately with an English teacher to obtain the most benefit from English study.

Conclusion

Some data tables above illustrate an influence of longer years of English education, more hours of English education, higher English expenditure per month, and more English usage per month on income. Obviously having general and English schooling background, spending money to study English, and using English daily positively influences incomes in SR TI. With higher English ability, this influence can transform into higher incomes for the lives and livelihood of young TI employees. As seen in the discussion, values in years of English education, hours of English education, and monthly English expenditure bind together to create overall English ability, and are very important in employment and income within SR TI. It is true that restaurants and

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souvenir shops had lower English ability as well as fewer years of English education and hours of English education, and lower incomes, than higher echelon businesses. This means that all of the previous values were influential, at least indirectly if not directly, in obtaining better jobs with higher incomes for TI employees in the case of SR. Monthly English expenditure values in basically all businesses were dispersed reflecting true cases where not all employees have the time or financial capability to study English with a private teacher or to attend English school, but many find the time.

The author received a broad view of the TI employee situation in SR through this study; it has also allowed the author to predict that those with higher ECA, longer TYS, longer YEE, more HEE, and more E$ have the potential to receive better employment and earn higher incomes in higher income businesses. The predictions were possible due to the accurate nature in which data was collected, tabulated, and statically calculated especially in terms of ECA and background general and English educational information. Quantitative values such as this paper has achieved make it not only accurate, but also solid verification of the importance of human capital attainments in both general and English education. The data also show statistically that more general and English education in specialized schools is valuable for TI employees' future lives. As we have seen earlier, studying privately with an English teacher also could assist TI employees in obtaining the most benefit from learning English for present and future employment. Table 14 shows that TI employees could receive incomes of or above USD200 with advanced, or level 5, English communication ability, quite a large amount in the developing country of Cambodia. According to Prake.org (2015), the monthly minimum wage for a regular employee in the garment industry, which is categorized to include garments and shoes, is 512,000 riels, or USD125, including other entitlements and benefits such as seniority, housing, and meals for overtime work, increasing the monthly salary to anywhere from USD147 to USD156 per month. Apprentices often earn 120,000 riels or USD29.34 per month. However, a Cambodian garment industry workweek runs 6 days, 8 hours per day totaling 48 hours per week. As found during this study, the workweek for TI employees in SR was around 40 hours per week, far under the garment industry workweek, and close to the worldwide labor standards. Knowing this, it is easy to see that employment in a higher echelon TI business is much more favorable than employment in garment or shoe manufacturing.

Implications

This study and the results have shown that if young labor force members attend school regularly and study English in school they can earn a suitable salary with quite a good living wage. Often times this wage is larger than salaries in the primary sector of agriculture and in most cases larger than employees in other businesses, such as the garment industry. Causation is impossible to prove in any statistical study. However, these finding show a significant relationship between ECA and income in the data tables, which show a positive relationship between ECA, English background education, and income. These findings could shed light on a new field that could lead to more

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education and communicative improvement in order to lift employees out of poverty in developing countries. Spearman's rank correlation results also showed high positive correlations in statistical tests of income with years and hours of English communication ability, English education, total years of schooling, and English usage in days per month. The implications for those who already possess excellent English communication skills are vast; however, those just starting out in the TI market can understand through this study that years and hours of English study in school, as well as having an expenditure to study English monthly are beneficial to their economic stability as higher returns to human capital in English education could be obtained.

In order to assist the young labor force in obtaining better income with English, educational administrators should create effective English for specific purposes (ESP) programs directed at future employment in tourism. Training such as this would enable young members of the labor force to enter the job market with abilities that could help them receive better and more stable employment and maintain this employment long into the future.

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[1] Similar tables were used in Author, 2015.
[2] Similar figures and tables were used in Author, 2015.
[3] Similar tables were used in Author, 2015.
[4] Since low ECA, YEE, HEE, E$, and INC (in SS and RT) were found in TT, SS, and RT, they will be referred as low echelon businesses.

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