

English Communication Ability in Employment and Income in Siem Reap, Cambodia Tourist Industry

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Abstract: Angkor Wat and its gateway city of Siem Reap (SR) have seen a remarkable growth of tourism for the past decade. Many tourists have been native English speakers. This means that tourist industry (TI) employees need to have a high level of English communication ability (ECA) to communicate with international travelers effectively. However, data regarding English education and ECA has been lacking. This being the case, the goal of this study was to collect socioeconomic background data such as years and hours of English education during interviews in six obvious TI related businesses, as well as assess the ECA of TI employees to examine the role of ECA in obtaining better employment and income. Section one introduces the study. Section two offers a review of literature. In section three, the method, materials, sample, location, and limitations are given. Section four offers the findings, and section five concludes. In section six, suggestions and recommendations are presented. Results found high positive correlations in income with certain English background variables. In conclusion, TI employees who have higher ECA and study more years and hours of English in school can obtain better employment and higher incomes.

Key Words: tourist industry, TI, communication ability, assessment, employment,

1. Introduction

TI in Siem Reap Cambodia has been growing tremendously since the late 1990s. Because of this, tourism employees need to possess a good command of English communication ability (ECA) for interactions with many international travelers from inner circle countries. However, data in Cambodia, especially in English education and communication, has been lacking. The author's assumption was that ECA, which is comprised of years and hours of English education in school and self-study, could lead to better employment with higher incomes. For many years, research studies have examined the question of general education, employment, and income (Mincer, 1974). Some research on English education, employment, and income exists; however, there are few studies on the direct impact of English communication ability on employment and income in developing countries. In addition, no previous study has collected data on TI employees or gathered ECA assessments in face-to-face interviews. Since this research question was unanswered, data was lacking, and since no other research had been completed, the author wanted to conduct a survey in the downtown city center of SR to examine the role of English communication ability in TI employment and income in an example of a developing country. In

2013 the author designed a research study to gather information in SR in six obvious TI related businesses: souvenir shops, restaurants, guesthouses, hotels, travel agencies, and tuk-tuks. These businesses were decided upon because they are obviously TI businesses and as such have much contact with EIL speakers on a daily basis. The study construct was that a bustling, lively tourist attraction with employees trained in hospitality and capable in English communication could maintain and attract visitors from around the globe through word of mouth (WOM), thereby adding to the growth of employment and income in SR TI. Westbrook (1987: 261, as cited in Litvin, 2008) describes WOM as “all informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services or their sellers.” WOM has been shown to have a large impact on tourism. Of late, online WOM also has a huge impact on travelers’ decisions about restaurants, hotels, and travel services. (Zhang, et al, 2009). Therefore, travelers’ positive experiences go hand in hand with positive WOM. To date, it can be said that SR has had positive WOM among backpackers and adventure seekers in choice of restaurants, guesthouses, and hotels. However, it is the author’s hypothesis that it can be developed further through English communication ability, and therefore can be more impactful to SR TI employment and income growth in the future.

Section two of this paper reviews related literature. Section three gives the method and materials, respondents, and limitations. Section four examines the findings of the survey situation. Section five offers a conclusion, and section six illustrates suggestions and recommendations.

2. Review of Literature

Casale & Posel (2010) investigated English proficiency in the developing country of South Africa. They used data from the National Income Dynamic Survey (NIDS), which followed over 20,000 South Africans in over 7,000 households. The NIDS includes English proficiency self-reporting questions for each respondent to answer individually on a four-point scale: 1) *very well*, 2) *fair*, 3) *not well*, or 4) *not at all*. The English proficiency in this study was gauged by whether or not the respondents could speak *very well*. Results showed that English proficient speakers earned 55% more than non-proficient. In addition, there was a high premium to learning English for over 50% of respondents. This study focused on reading and writing as the main criteria of English proficiency.

Bleakley and Chin (2003) focused on English proficiency and earnings of childhood immigrants to the U.S. who emigrated there as children. They used census data to measure self-reported data on the 2000 U.S. census. At that time, 10.4% of the population was born in a foreign country and most were from expanding circle countries. In this census, respondents were also to rate their own spoken English language ability on a similar scale, although five-point: 1) *speaking only English*, 2) *speaking very well*, 3) *speaking well*, 4) *speaking not well*, or 5) *speaking not at all*. A large number of those who arrived in the U.S. as children were able to learn English as a second language 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. However, the subjective nature of self-reporting one's own English proficiency may not be accurate.

Many present studies focusing on English proficiency and earnings in different capacities use data from censuses, which rely on self-reported English proficiency measurement as above. This is not an accurate form of assessment as levels can be over or under reported. Other studies use proxies, such as TOEIC or TOEFL test scores, but again this method is difficult due to the costly and time-consuming nature of providing and marking such tests.

3. Method and Materials

In 2013, five students with advanced English communication ability from Angkor University, Siem Reap were chosen to act as assistants during this study. During the surveys, the author used 5 Cambodian student assistants from Angkor University with advanced English proficiency, provided by the Angkor University Research Center for Economic Development (AURCED). The research team used a questionnaire containing 25 questions relating to socioeconomic background including age, years of schooling, years and hours of English education, income, and expenditure. The assistants interviewed employees during work in the six jobs mentioned previously to record answers and to assess English ability of the employees. They were each provided with hand-held IC recorders on which to record self-introductions later used to analyze and assess the individuals' ECA. The method for measuring ECA was created by the author and 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 1). 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 income and employment seeking. The author's assessment can be found in Table 2.

Table: 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	
C1	
C2	

	Vantage or intermediate - can understand and produce ideas on concrete and abstract topics
	Effective operational proficiency - can get implicit meaning, can use language flexibly
	Mastery or advanced - can understand everything, can express spontaneously and fluently

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

Table: 2

The Author's Variation of English Ability Assessment

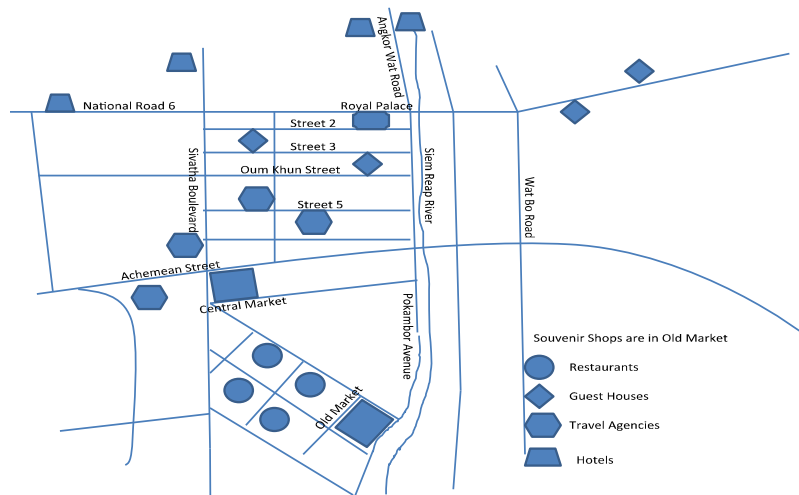
0	No or little ability - can't communicate at all
1	Beginner - can only understand and use familiar everyday expressions
2	High Beginner - can understand and use expressions within everyday
3	relevance
4	Intermediate - can understand many things, can produce but with many
5	mistakes
	High Intermediate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

Source: Author, 2013.

The assistants used hand-held IC recorders to record self-introductions given by TI employees in English during face-to-face interviews. The assistants used the level assessment to immediately judge the English ability of the respondents individually, using the rubrics as a guide, and marked the appropriate level on the questionnaire. For accuracy, the self-introductions were then double-checked by professionals after the recordings by following the same rubrics.

The survey was conducted from March 15-18, 2013 in downtown SR City, around the Old Market area. The survey areas follow: 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 National Road 6 and Angkor Wat Road; travel agencies were located on Sivath Boulevard, Street 5, and Oum Khun Street; and tuk-tuks were located throughout the city, including Old Market area, Night Market, and New Night Market (see Fig. 1).

Figure: 1



Map of Survey Areas of SR City, 2013. Tuk-tuks are located throughout SR City.

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

3.1. Respondents

The sample was calculated based on total number of shops instead of on population due to the incredible lack of data in SR. Such lacking data included sex ratio, minimum wage information, and tax information. A 95% confidence level and a margin of error of 11 were used in calculations for each business separately. The sample sizes for each business can be found in Table 3.

Table: 3
Sample, 2013

Establishment	Total No. of Shops (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.

3.2. Limitations

Although SR is a fairly modern city with many amenities, there are still very little official data on many socioeconomic aspects of everyday life, including sex and age distribution of all workers, population of both registered and non-registered businesses, number of high school graduates, tax information, and prime costs. This information would have been useful in designing the questionnaires and also in conducting the surveys. In addition, there is no official layout map of Old Market area, nor is there a floor plan of Old Market itself, where several interviews were conducted. This required the research team to count the shops manually and to create a floor plan of Old Market for sample calculation and also interviewing purposes. One other limitation was that the student assistants were at first very uncomfortable in judging the ECA of other Cambodian nationals. However, it was explained that their role was quite important and that the author required their excellent English ability for this research project.

4. Findings

After the surveys, variables related to income, previous salary, and expenditure, as well as English education and ability, were calculated with certain statistical measures to show validity and to strengthen the author's hypothesis. The variables with their abbreviations were: income (INC), English communication ability level (ECA), total years of schooling (TYS), years of English education (YEE), hours of English education (HEE), expenditure for English study (E\$), and the number of days English was used per month (DEM). The abbreviations for all variables can be found at the beginning of this paper. The statistical measures used for statistical calculations with the variables were: mean (the average value), median (the exact central value). Standard deviation (SD) shows how far spread out the values are from the mean. Coefficient of variation (CV), which is the ratio of the SD to the mean, is used in this interpretation to signify variance. The CV for each variable is used to explain the spread out characteristics of the variable independent of the unit. Small CV values indicate smaller residuals in relation to the assumed value, and this suggests good fit to the model. The business abbreviations follow: TT, tuk-tuk drivers; SS, souvenir shops; Rest, restaurants; GH, guesthouses; TA, travel agencies; and H, hotels. In addition to simple statistical analysis, Spearman's rank, which correlates two sets of data in a ranked order, was also used for verification. Those results will also be presented.

The results will be presented according to the type of business and in order from lowest English level to highest English level for simplicity. This is done to examine English level and English education and its role in employment and income. The tables give the resulting values, and then an interpretation of the resulting values will be offered.

Table: 4

Mean Values

Variable	ECA	INC	TYS	YEE	HEE	E\$
Business						
TT	2.4	193	9.58	2.0	9.17	6.78
SS	2.7	144	12.03	2.2	7.50	11.71
Rest	2.8	131	11.80	2.4	9.63	13.78
GH	2.9	170	12.85	3.4	10.15	11.55
TA	3.4	205	13.74	4.0	6.75	11.39
H	3.6	192	13.14	5.1	14.14	13.88

Source: Calculated using survey data, 2013.

The mean values (Table 4) of ECA show that most respondents were between a beginning and a high intermediate level, according to the author's assessment guide. TT's had an ECA value at 2.4, or high beginner, meaning they could understand and use words within everyday relevance with slightly more confidence. Results show that TT drivers had the least YYS, the fewest YEE, and had the smallest E\$. However, their INC was quite high, which does not validate the author's assumption that English communication ability was influential in higher incomes, probably due to the fact that TT drivers were older, more experienced, and were mostly male. TT drivers were quite adept at gaining new customers and spoke just enough English to assist them in making profits, but relied on tourism-specific English for communication and could not carry on deep conversations.

SS staffs' ECA was slightly higher at 2.7 (second from lowest) showing they had slightly more confidence and slightly higher ability, able to communicate everyday expressions with more relevance. This corresponded with their INC level (USD144), which was second from lowest as well. They had more YYS and most graduated from high school. In addition they had more YEE, but less HEE in school. This could be due to many factors, one of which could be less time to study English due to the fact that some souvenir shops employed young family members to work in the business. Interestingly, results showed they spent quite a lot of money per month on studying English, perhaps to better their situations.

Rest employees had the lowest INC in 2013, yet their ECA levels were 2.8, or third from lowest. The INC and ECA values do not correspond with each other and do not follow the author's assumption. This could be because Rest employees are satisfied with their jobs in restaurants and do not feel the need to find new employment. They had slightly more skill, friendliness, word knowledge and confidence than both SS's and TT's. Their YYS values were second from lowest, and their HEE value was third from bottom, but they had a large E\$, showing they spent quite a

bit on studying English monthly. The author's assumption was that this was because Rest employees had a more flexible schedule and were able to take time to study.

GH employees' ECA was on the border of intermediate at 2.9, which meant that they could understand many things and could produce many ideas with less broken English, although with many mistakes. This level was third from highest, while their INC (USD170) was fourth from highest. However, TYS and YEE were third from highest, signifying that they spent time in school studying English. Their HEE value was second from highest, and they too had a large E\$, showing spent quite a lot of money to learn English monthly. This could be because they, too, wanted to improve their employment situation and their standard of living.

TA staff had second from highest ECA, which corresponded to the second highest INC level. Their ECA levels were 3.4 or intermediate, which meant that they could understand to a higher degree, and produce more abstract ideas and thoughts, but with mistakes and less confidence. TA's had the longest TYS, and the second longest YEE. Their HEE value was actually the shortest. This could mean that they had already gained quite a high English level and therefore spent less time in school with English. They had the fifth from highest E\$, and perhaps this too is a signal that they already had a good command of English and did not need to spend more time or money studying it.

H staff had the highest ECA, and third highest INC, although not differing much from TT or TA. In addition they had the second longest TYS, the longest YEE, the longest HEE and the highest E\$. The mean values of course contained outliers. In the true situation some staff with INC around 100USD, and others with 300USD. Within H it is evident that employees cared about their futures and studied English more for better employment.

Table: 5

Median values

Variable	ECA	INC	TYS	YEE	HEE	E\$
Business						
TT	2	200	9	2	6	1.5
SS	3	120	12	2	5	5
Rest	3	100	12	3	6	8
GH	3	150	12	3	8.5	12
Ta	4	185	12	3	4	8
H	4	170	12	4	7	9

Source: Calculated using survey data, 2013.

Median values (Table 5), the exact central point in the data, strengthen the hypothesis in mean values, and are useful because they are not sensitive to outliers. These values show there is an ascending order of values from lower echelon business to higher echelon business, with the same two exceptions mentioned above: TT drivers, and Rest. Rest staffs' ECA clearly rose from low to high, as did their YEE values. HEE and E\$ values generally follow the same trend, although some differences in restaurants and guesthouses are evident. This could be due to the same reason as stated above; Rest and GH staff members are content in their jobs and feel no need to obtain higher paying jobs. Median values help verify the prediction that ECA values correspond to rises in INC, TYS, and YEE, at least in some businesses.

Table: 6

SD values

Variable Business	ECA	INC	TYS	YEE	HEE	E\$
TT	0.76	80.52	2.55	1.21	2.55	10.10
SS	1.01	64.14	3.15	1.59	6.72	20.12
Rest	0.92	64.09	3.53	1.13	8.23	15.35
GH	0.88	80.70	2.83	2.31	8.09	11.70
Ta	0.90	99.07	2.03	2.26	9.79	14.31
H	0.70	147.85	2.75	3.68	15.13	15.89

Source: Calculated using survey data, 2013.

Standard deviation, or SD (Table 6) tells how far the values are from the mean. ECA values are very low and very close to the mean, which indicates that these values are less dispersed. However, it is evident that income values are widely spread out. This is mainly due to outliers in the data implying that incomes are quite varied in our sample and many employees earned differing incomes. In addition, the E\$ values are also spread showing that employees had a varying expenditure when it came to English study. Values in TYS, YEE, and HEE, are closer to the mean, indicating true values, but are slightly high.

Table: 7

CV values

Variable Business	ECA	INC	TYS	YEE	HEE	E\$

TT	0.31	0.42	0.27	0.62	0.26	1.49
SS	0.51	0.45	0.26	0.70	0.89	1.72
Rest	0.33	0.49	0.30	0.47	0.86	1.11
GH	0.31	0.48	0.22	0.68	0.80	1.01
Ta	0.26	0.48	0.15	0.57	1.45	1.26
H	0.20	0.77	0.20	0.72	1.07	1.15

Source: Calculated using survey data, 2013.

Coefficient of variation (CV) is the ratio of the SD to the mean; CV values explain the fit of the model according to residuals. If the CV is low, the residuals are small indicating a good fit for the model with accurate predictions. These results show that the CV values are low indicating accurate predictions in most of our data, except in values for HEE in TA and H. Another exception is E\$, where all values are slightly high showing inaccurate predictions. This discrepancy could be accounted for by differentials in HEE and E\$ variables, and also due to the presence of outliers. The values of most interest are ECA and INC because this is what the author was assuming, and where true impact can be seen; the CV values in both cases are less than +1, indicating true predicted values (Table 7).

Table: 8

Spearman's Rank Correlation Results, 2013

Var.	INC/ECA	INC/TYS	INC/YEE	INC/HEE	INC/E\$
TT	0.62	0.68	0.64	0.73	0.49
SS	0.80	0.78	0.67	0.78	0.62
Rest	0.84	0.83	0.84	0.75	0.58
GH	0.45	0.63	0.82	0.70	0.62
TA	0.65	0.69	0.54	0.64	0.45
H	0.80	0.79	0.79	0.56	0.58

Source: Calculated using survey data, 2013.

Spearman's rank correlation (Table 8) was also performed to show validity of two quantitative variables in a ranked fashion. This test was ideal for this situation because it is not sensitive to outliers, and is robust. Here, six variables were examined in correlation tests with INC as the dependent variable. The variables and abbreviations tested with income were the same as those in the statistical tests: ECA, TYS, YEE, HEE, and E\$. For clarity, a system of determining the correlation coefficient will be offered: 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.

Values in INC correlated with English communication ability for SS, Rest, and H were all high positive, as were values for INC/TYS for SS, Rest, and H. Other high positive correlation values were found in INC/YEE in Rest, GH, and H; TT, SS, Rest, and GH all showed high positive correlations in INC/HEE.

Interestingly, no high positive correlations were found in INC/E\$; the values extended from slight positive correlation in TA and TT to moderate positive correlations in SS, Rest, GH and H.

Table: 9
Income Attainments of Advanced and Beginner English Communication Ability, 2013

ECA	YEE (mean)	YEE (median)	HEE (mean)	HEE (median)	E\$ (USD) (mean)	E\$ (USD) (median)	INC (mean) (US\$D)	INC (median) (USD)
5 (Adv.)	5.10	4	7	14	13.77	9	200.00	188.50
1 (Beg.)	1.95	2	6.7	4	6.67	1.5	70.00	80.00

Source: Calculated using survey data, 2013

Table 9 displays the income attainments of advanced and beginner ECA in 2013; the importance of ECA for employment and income is clearly understandable. Those with an ECA of 5 or advanced earned a mean of 200USD per month, and spent a mean of 5 years and 4 hours per week studying English. On the other hand, those with a level 1 or low beginner earned a mean of 70USD per month and spent almost 2 years and 2 hours per week in English study, quite a difference. In addition, those with ECA 5 ability spent almost 14USD per month studying English; those with ECA 1 spent about half of that on English study.

5. Conclusion

From the survey situation it was found there were no respondents that had absolutely no ability; neither were there respondents with a perfect ability. The author speculated that employees of lower echelon businesses with lower general education, lower English level, fewer years and hours of schooling, and less monthly English expenditure would tend to make lower incomes than higher echelon. The opposite also held true according to the survey results: those with higher English level who spent more years and hours studying English, and who spent at least some money learning English monthly, had a better chance to obtain better jobs and earn higher incomes. This assumption was verified through the survey results presented in the previous tables. The goal of the study was to examine the relationship of ECA with employment and income; SD and CV values show consistency and also showed that the residuals from the data were low or generally acceptable; the mean was accurately predicted in most cases. During the survey situation, the author and the research team certainly received useful and important information directly from the employees of SR TI. The data outcomes could explain the socioeconomic situation from the employees' own perspectives. Although causation is difficult to prove, results validate that a higher ECA level, more years of English education, more hours of English education, and a monthly expenditure for English study are influential in obtaining better jobs and higher incomes. Therefore it can be said that if one wishes to obtain a more secure job and a higher salary, one prescriptive tactic based on survey results would be to obtain more years and hours of English study per week, and to have a small expenditure set aside to learn English if possible.

Although the research team did not have the time or manpower to examine all facets of the English communication situation in SR TI, much useful and important data were collected to analyze the employment situation and prospects for those with English ability. As this paper has hopefully shown, accurate assessment of ECA is crucial for quantifiably examining its role in employment and income, giving strong verification of the outcomes. It is hoped that other researchers use this method to conduct research in ECA, employment, and income in the developing world.

6. Suggestions and Recommendations

After completing this research, the author found that English needs could be further examined, and a comprehensive English for Specific Purposes (ESP) program for tourism English could be established to offer practical, hands on training for future employment. This would ensure that young members of the TI labor force receive adequate support to work in the growing world of TI, and be able to obtain better employment and higher incomes. Further research must be completed in order to further solidify the importance of communication ability in employment and income statistically. One method could be to develop a much more detailed and minute method of measuring communication ability further economic analysis. This could help build a bridge for further research into ECA and economic development far into the future.

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