TO REFORM OR NOT TO REFORM: CAMBODIAN BELIEFS AND ATTITUDES TOWARD EDUCATION REFORM AND CHANGES TO THEIR NATIONAL GRADE 12 EXAMINATION

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ABSTRACT

In a time of global education reform, many countries are striving to reach their fullest potential. Cambodia is still working to rebuild its education system following the Khmer Rouge's purge of education between 1975 and 1979. In 2014, the current Minister of Education, Dr. Hang Chuon Naron, initiated educational reforms aimed at creating a more economically competitive Cambodia. The administration began by rewriting the National Grade 12 Examination and implementing strict anti-cheating measures. This exam is required for high school graduation and university acceptance, but prior to these reforms there was rampant cheating on the exam, likely impacting the ability of students to perform well on university-level work and in the job market. There is limited research on public opinions and the effectiveness of the reforms to this exam. This study consisted of a 13-statement survey and a focus group, asking participants to express their perceptions of the impact of these recent reforms on higher education, economic competitiveness, and global opinions of Cambodia. Of the 53 survey participants, 29 took the post-reform exam, 23 took the pre-reform exam, and one took the exam in an unknown year. A majority of the participants (50) were university students at the Royal University of Phnom Penh, and the other three participants were friends or family of these students. Findings suggest that university students at the Royal University of Phnom Penh, even those students who failed the revised exam, support the reforms and view them as necessary for the further development of their country.

Literature Review

The former Democratic Kampuchea, now known as Cambodia, has a long, difficult history, especially when it comes to education. A formal education system was not established until Norodom Sihanouk, leader of Cambodia intermittently from 1941 to 2004, took interest after he helped win Cambodian independence from France in 1953. Twenty years went by with the country's education system slowly gaining momentum, but that came to an abrupt halt when the Khmer Rouge ruled Cambodia from 1975 to 1979. The Khmer Rouge destroyed virtually everything related to western civilization including the education system and any Cambodian who showed signs of being literate. The Khmer Rouge genocide resulted in an estimated loss of about two-million Khmer people, one-quarter of the population at the time (Williams, 2014), including a vast majority (75 to 80 percent) of the country's teachers and other educated persons (Duggan, 1996).

The country's government has slowly begun rebuilding the education system after the devastation of the Khmer Rouge regime. With much foreign aid, particularly from the United Nations (UN), the country has reopened thousands of primary and secondary schools, and they have now begun to focus on how to improve the curriculum (Duggan, 1996). Due to government corruption, higher education has become largely privatized (Ford, 2013), which in turn has led to an exponential growth in the number of students attending universities over a 20-year span (Wan, Sok, Sirat, & Un, 2018).

The Cambodian government's recent interest in education stems from the belief that an improved education system would better the country's overall economic standing and make them more competitive with other countries in the Association of Southeast

Asian Nations (ASEAN)¹ (Duggan, 1996; Dickinson, 2016). In 2013, Prime Minister Hun Sen appointed the former Minister of Economics, Dr. Hang Chuon Naron as the Minister of Education, Youth, and Sport (MoEYS) in 2013 in hopes of approaching this development in a more constructive way. Almost immediately, Dr. Hang began working on a list of educational reforms that the government would need to make to improve the country's global economic position. These changes include five pillars of education reform: revamping teacher training and pay, inspections of schools, curriculum and textbook overhaul, changes to national assessments and examinations, and higher education accreditation (Hang, 2015).

One of the first reforms that Minister Hang implemented was to secure the National Grade 12 Examination. Because cheating on the exam was rampant, it was not taken seriously by students or teachers. Oftentimes, students would bribe the proctors and other teachers for stolen or copied duplicates or the answers to the exam (Wilson, 2013). Because a passing grade on the National Grade 12 Examination is required for high school graduation and acceptance into a university, the rampant cheating caused major concerns for Dr. Hang. Unprepared Cambodian university students could not compete with those in other ASEAN countries.

In 2014, only a year into his office, Minister Hang completely revamped the exam and the way it was administered. A new exam was created by a small handful of people

¹ There has been other research supporting better quality education in skills needed in the job market in order to further develop the country's economy (Marks, 2011; Wilwohl, 2013; Phoak, 2014).

(hand chosen by the government) and kept under military guard (Dickinson, Retooling Cambodia's teacher trainers: Progress and challenges of national reform efforts, 2016). Answers and copies of the exam are no longer available for sale to students, and any proctors or teachers found helping students cheat are immediately punished (Phan, 2016; Ponnudurai, 2014). Naturally, this meant a dramatic decrease in exam grades, which therefore meant fewer students being sent to universities.

The first administration of the reformed exam in 2014 had a much higher failure rate than previous years. According to Chakrya and Amaro (2016), 74 percent of students who sat for the exam (about 90,000) failed, whereas only 17 percent of about 110,000 students failed the year before the reforms. Ponnudurai (2014) found that the increased failure rate is likely directly related to the check on cheating and the more challenging examination. Compared to the 80-plus percent passing rate in previous years, the high failure rates were controversial.

A poll by The Asia Foundation (2014), a nonprofit, non-governmental organization that focuses on major issues faced by Asian countries, shows that 90 percent of the 500 Khmer people surveyed agreed that education reform was needed, and 96 percent agreed with the need to decrease the rate of cheating and bribery related to the examination. Within the government, the reformed National Grade 12 Examination was looked upon favorably. Officials knew that Minister Hang's goal was to promote the economy and global standing of Cambodia by reforming the education system. The best way to do that was to hold students, and teachers, to higher and more rigorous academic standards. However, many students and teachers in the country believed that the reformed

exam was implemented too quickly and gave them little to no time to prepare (Ky & Ty, 2018; The Asia Foundation, 2014).

In addition to the poor quality of the education system itself, there has been corruption at the teacher level, as well. Cambodian teachers are so underpaid that most find themselves without the means to provide for themselves or their families (Wilkins & Odom, 2014). Major issues stem from this, including teachers refusing to actually teach content in the classrooms and requiring a "fee" to teach material or give tests outside of class time (Tandon & Fukao, 2015). It falls upon the students and their families to offer teachers bribes, usually in the form of money, for them to actually teach the material that students needed to know. Instead of paying the fees to be taught the content, however, students would often just pay the teachers and proctors for the answers to exams, including to the National Grade 12 Examination. The government is currently focusing on increasing teacher pay to reduce teacher corruption (Wilkins & Odom, 2014). They hope reduced corruption will also enhance teacher and student preparedness for exams like the National Grade 12 Examination, as well as university-level academic work.

Efforts have been made to offset the lack of preparedness that secondary school students feel as they sit for the annual exam, including creating test preparation websites and tools (Surrusco & Chhorn, 2017). In addition, the Ministry of Education, Youth, and Sports (MoEYS) is working on enhancing curriculum and teacher quality through workshops and degree programs (Hang, 2015). Even though pass rates are steadily increasing, the country still has many ways in which it can improve.

Methods

This paper uses information gathered during a trip to Cambodia for a four-week Texas State University study abroad program in the summer of 2017. Data collection included quantitative and qualitative methods consisting of surveys and a focus group. The research was conducted at the Royal University of Phnom Penh (RUPP), one of the major universities in the capital city. Due to political tension in Cambodia, there may have been risk discussing personal beliefs and feelings toward the reforms. Therefore, the research methods were submitted through the Texas State Institutional Review Board (IRB). The research was approved on May 30, 2017 (IRB approval number 2017658). All research materials were translated into Khmer by a Cambodian translator with knowledge of educational terms. The survey was created, as well as an example of focus group questions, a survey cover letter, and an interview/focus group script. These documents, and the informed consent form, can be found in English and Khmer, as applicable, in Appendix A. Permission to conduct research on RUPP's campus was granted by Soth Sok, the Dean of Education at RUPP.

Instruments

Composing the survey began with a review of literature related to the education reforms occurring in the country. As this research focuses specifically on the National Grade 12 Examination, the search focused on information about those reforms. After discussing the country's history and education system with Dr. Gail Dickinson, an associate professor at Texas State University, and a Fulbright Scholar (2015-2016) whose work focused on Cambodian Teacher Training, there was a firm base of understanding of the political upheaval that the reforms had created. The purpose of the survey was to

gather Cambodian beliefs about and feelings toward the National Grade 12 Examination, and their beliefs about whether or not current education reforms would be beneficial to the country's future. The goal was to compare the beliefs of participants who took the pre-reformed examination versus the reformed examination, so the survey statements were geared toward two sides of potential perspectives: pro-reform and anti-reform.

The survey consisted of thirteen non-political statements, covering the topic of education reform in Cambodia (specifically regarding the National Grade 12 Examination); the importance of education in the country; the impact a country's education level can have on social and economic views; and how a country's level of education can change the global perception of the country as a whole. Participants were asked to rate their agreement with the statements on a five-point Likert scale. The survey presented statements about the effectiveness of the reformed National Grade 12 Examination, whether the reformed exam would increase a student's preparedness for university-level work, whether the education system should have been reformed, and if those reforms would make an impact on Cambodia's global standing. The final two statements asked whether they believed that a country's education standards can affect how it is perceived, as well as if they had ever failed the National Grade 12 Examination.

Participant Recruitment

To gather participants, the researcher verbally asked RUPP students who were enrolled in classes taught by Texas State professors at RUPP. Participants were also gathered through the Texas State Study Abroad in Cambodia Facebook page. After gathering the initial participants, the snowballing sample method was employed. The original participants, many of whom spoke Khmer and English, assisted the researcher in

gathering more people to take the survey. The assistants translated as the research and purpose of the survey were explained.

Each person who consented to complete the survey was given an informed consent form, which was required to be read and signed. The consent form outlined the purpose of the survey, potential risks and benefits, and all other information required by the Texas State IRB.

Research Timeline

On the first day, nine students agreed to take the survey. The survey was given to the participants at Blend Café, a coffee shop, on the RUPP campus. After those nine were finished, two of the students walked around the café, asking other students to see if they would also take the survey. By the end of day one, 13 surveys had been completed.

The second day the survey was given, one of the Cambodian students co-enrolled in the Texas State courses assisted in walking around the campus to gather more potential survey participants. The new participants were gathered from the courtyard by the Canteen, the food court at RUPP where many students eat lunch. The new participants filled out the translated consent form, and then were handed the survey. By the end of this second day, 12 more had completed surveys, bringing the total to 25.

The third day the survey was given, another RUPP student assisted in gathering more participants in the Canteen, as on the second day. Another 12 surveys were completed, bringing the total to 37. The fourth, and final, day, the final 12 surveys were collected by walking around various parts of RUPP campus and asking random students.

One of the surveys was given to a student who took it to a neighbor. The snowball sample

method (via word-of-mouth) led to an additional three surveys, bringing the total number of surveys to 53. Only three of these surveys were non-RUPP affiliated.

Confidentiality

As the surveys and informed consent forms were collected, each one was numbered and separated from the response form. As the survey results were being compiled, this allowed the data to be kept anonymous and not linked to any specific person.

Focus Group Selection and Methods

Analyzing the survey data revealed certain patterns that could be further researched. These patterns were the baseline of the focus group questions. To select the focus group, 10 random RUPP students who were co-enrolled with the Texas State students in courses, and who had participated in the survey, were contacted and asked to participate. They all agreed. The focus group occurred at a local coffee shop near the RUPP campus.

The purpose of the focus group was to gain understanding and insight into why certain patterns emerged the way they did. The focus group was completed in English, voice recorded, and then transcribed for data analysis. After transcribing the focus group, the Cambodian university students' responses were analyzed for common trends. The focus group process was approved by the IRB. A complete list of focus group questions is found in Appendix B.

Participants

Surveys were collected from 53 participants. All but three of those participants were undergraduate students at the Royal University of Phnom Penh (RUPP). About half

(23) took the National Grade 12 Examination prior to the reforms in 2014, and their exam years ranged from 2010 to 2013. More than half (29) took the National Grade 12 Examination post-reform, and their exam years ranged from 2014 to 2017. One participant took the exam in an unknown year, and their responses were not used in any statistical analysis. Five participants, three of which only completed high school, failed the National Grade 12 Examination on the first attempt.

Data Analysis

Survey Results

Survey responses were assigned numerical values ranging from one for strongly disagree to five for strongly agree. Survey responses were entered into a Microsoft Excel spreadsheet. Descriptive statistics, including average and standard deviation, were calculated for each statement, and then unpaired t-tests were used to analyze differences in responses between groups. Differences in average responses are significant if the p-value for the t-test is less than or equal to 0.05.

Pre-reform and post-reform participants' responses differed significantly on statements 3, 6, and 7 (See Table 1). For these three, the participants in both groups largely answered the same way, with only slight differences in the numbers (e.g., 61 percent, or 14 of 23, of pre-reform participants answered strongly disagree or disagree on number three, whereas 83 percent, or 24 of 29, post-reform participants answered the same way). Post-reform participants felt more strongly than pre-reform participants that changes to the National Grade 12 Examination had not improved a student's ability to perform well on university-level work (statement 3, $p \le 0.01$). On survey question three, 61 percent (14 of 23) of pre-reform test-taking participants (hereby referred to as "prereform") disagreed or strongly disagreed with the statement, "Changes to the National Grade 12 Examination, starting in 2015 [sic—2014], have not improved a student's ability to perform well on university-level work", while only 39 percent (9 of 23) agreed. Post-reform test-taking participants (hereby referred to as "post-reform") had very similar, although higher, responses to pre-reform, with 83 percent (24 of 29) either disagreeing or strongly disagreeing. Seven percent (2 of 29) of post-reform responded in

a neutral fashion. Ten percent (3 of 29) agreed. T-test analysis of the responses between the pre- and post-reform participants showed statistical significance ($p \le 0.01$).

Additionally, post-reform participants felt more strongly that the changes to the National Grade 12 Examination would benefit Cambodia in the future (statement 6, p \leq 0.02). Seventy-four percent of pre-reform participants agreed or strongly agreed with this statement, four percent (1 of 23) strongly disagreed, and 22 percent (5 of 23) remained neutral. Ninety-six percent (28 of 29) of post-reform participants agreed or strongly agreed, and only three percent (1 of 29) strongly disagreed. The responses between the pre- and post-reform participants showed statistical significance (p≤0.02), which was interesting considering the vast majority of participants agreed with the statement. The difference was likely between the large number who stated that they "strongly agreed" (6 pre-reform and 16 post-reform) compared to "agreed" (11 pre-reform and 12 postreform). One-hundred percent (5 of 5) of participants who failed the National Grade 12 Examination either agreed or strongly agreed with statement 6. Eighty-six percent (40 of 47) of participants who passed the National Grade 12 Examination either agreed or strongly agreed. Only four percent (2 of 47) of those who failed strongly disagreed and 11 percent (5 of 47) remained neutral.

However, post-reform participants also felt more strongly that changes to the education system would not benefit Cambodia economically (statement 7, p \leq 0.04). Forty-eight percent (11 of 23) of pre-reform participants agreed or strongly agreed, 39 percent (9 or 23) disagreed, and 13 percent (3 of 23) remained neutral. Sixty-two percent (18 of 29) of post-reform agreed or strongly agreed, 14 percent (4 of 29) disagreed, and 24 percent (7 of 29) remained neutral. Sixty percent (3 of 5) of the participants who failed

the National Grade 12 Examination remained neutral, and 40 percent (2 of 5) agreed with statement number seven. Fifty-eight percent (27 of 47) of those who passed the exam agreed or strongly agreed, 28 percent (13 of 47) disagreed, and 15 percent (7 of 47) remained neutral.

Table 1

T-test Results Comparing Pre-reform versus Post-reform Responses

Pre-Reform			Post-Reform			
Question	Mean	STDEV	Observations	Mean	STDEV	Observations
3**	2.7	1.1	23	2.1	0.8	29
4	2.5	1.0	22	2.6	0.9	29
5	3.3	1.0	23	3.7	1.0	29
6**	3.9	0.9	23	4.4	0.8	29
7*	3.1	1.0	23	3.6	0.9	29
8	1.7	0.9	23	1.4	0.6	29
9	2.9	1.0	23	2.6	1.0	29
10	2.4	1.1	23	2.4	1.1	29
11	4.3	0.6	23	4.3	0.6	29
12	4.0	0.7	23	4.0	0.8	29

Note: * p \leq 0.05, one-tailed. ** p \leq 0.01, one-tailed

Table 2

T-test Results Comparing Students Who Failed the National Grade 12 Examination on the First Attempt versus Those who Passed on the First Attempt

	Fail			Pass			
Question	Mean	STDEV	Observations	Mean	STDEV	Observations	
3**	1.8	0.4	5	2.4	1.0	47	
4	2.0	0.7	5	2.6	1.0	47	
5	4.0	0.7	5	2.6	1.0	47	
6	4.4	0.5	5	4.2	1.0	47	
7	3.4	0.5	5	3.4	1.0	47	
8	1.4	0.5	5	1.5	0.8	47	
9	3.2	1.1	5	2.7	1.0	47	
10	2.6	1.3	5	2.4	1.0	47	
11	4.4	0.5	5	0.3	0.6	47	
12	3.4	1.1	5	4.0	0.7	47	
Note: $**n < 0.01$ one tailed							

Note: ** $p \le 0.01$, one-tailed

Comparisons of participants who failed the exam versus those who had passed the exam revealed significant differences on only statement three (see Table 2). While both groups disagreed with the statement, "Changes to the National Grade 12 Exam, starting in 2015 [sic—2014], have not improved a student's ability to perform well on university-level work," students who failed the exam disagreed more strongly than those who passed (statement 3, $p \le 0.01$). One-hundred percent (5 of 5) of those who failed the exam either disagreed or strongly disagreed, compared to the 70 percent (33 of 47) of those who passed. Four percent (2 of 47) of those who passed remained neutral and 26 percent (12 of 47) agreed with the statement.

Pre- and post-reform participants disagreed that the education system had changed since the reforms (statement 4). Fifty percent (11 of 22) of pre-reform, and 62 percent (18 of 29) of post-reform, disagreeing or strongly disagreeing. Twenty-seven percent (6 of 22) of pre-reform, and 17 percent (5 of 29) of post-reform, remained neutral, while 18 percent (4 of 22) of pre-reform and 21 percent (6 of 29) of post-reform agreed. One pre-reform participant did not answer this question. Eighty percent (4 of 5) of those participants who failed the National Grade 12 Examination disagreed or strongly disagreed with number four. Twenty percent (1 of 5) remained neutral. Fifty-five percent (25 of 46) of those participants who passed the National Grade 12 Examination disagreed or strongly disagreed. Twenty-two percent (10 of 46) remained neutral, and 24 percent (11 of 46) agreed with statement number four.

Survey statement five stated, "Students who passed the new Grade 12 Exam are better prepared for university-level work than students who took the older version of the exam". Sixty-one percent (14 of 23) of pre-reform agreed that the reforms better prepare

students, compared to the 30 percent (7 of 23) who disagreed and the nine percent (2 of 23) that remained neutral. Of post-reform participants, 72 percent (21 of 29) agreed or strongly agreed with the statement, 13 percent (4 of 29) disagreed or strongly disagreed, and 14 percent (4 of 29) remained neutral. Overall, there seemed to be a consensus that those who pass the National Grade 12 Examination have skills and knowledge that will help them perform well at the university level. Eighty percent (4 of 5) of the participants who failed the National Grade 12 Examination agreed or strongly agreed with statement number five, and only 20 percent (1 of 5) remained neutral. Of those who passed the exam, 66 percent (31 of 47) agreed or strongly agreed, compared to the 23 percent (11 of 47) who disagreed or strongly disagreed and the 11 percent (5 of 47) who remained neutral. Survey statement eight stated, "The education system should not have been reformed (changed)." The responses were very similar for all groups—most participants believe that education reforms were needed and should have been made. Ninety-one percent (21 of 23) of pre-reform participants disagreed or strongly disagreed, and 97 percent (28 of 29) of post-reform participants responded likewise. Only nine percent (2 of 23) of pre-reform participants agreed, and only three percent (1 of 29) of post-reform participants remained neutral. One-hundred percent of participants who failed the National Grade 12 Examination also disagreed with this statement, and 93 percent (44 of 47) of those who passed responded in the same fashion. Only four percent (2 of 47) of those who passed agreed and two percent (1 of 47) remained neutral.

Survey statement nine reads, "Being accepted into a university is more difficult since the changes were made to the National Grade 12 Examination." Forty-eight percent (11 of 23) of pre-reform disagreed with this as well as 62 percent (18 of 29) of post-

reform. Thirty-nine percent (9 of 23) of pre-reform agreed with this statement and 13 percent (3 of 23) remained neutral. Twenty-four percent (7 of 29) of post-reform agreed or strongly agreed with this statement and 14 percent (4 of 29) remained neutral. The question should have, perhaps, been reworded to address the fact that once students pass the exam, they are automatically accepted into university. Participants may have been thinking of the process after the exam (which is nonexistent, essentially) rather than the exam itself being a barrier. Forty percent (2 of 5) of those who failed the exam disagreed, compared to the 60 percent (3 of 5) who agreed. Fifty-seven percent (27 of 47) of those who passed the exam disagreed or strongly disagreed, 15 percent (7 of 47) remained neutral, and 28 percent (13 of 47) agreed or strongly agreed.

Survey statement ten reads, "The changes made to the education system will not change the global perception of Cambodia." Seventy percent (16 of 23) of pre-reform disagreed or strongly disagreed with this, 9 percent (2 of 23) remained neutral, and 21 percent (5 of 23) either agreed or strongly agreed. Sixty-six percent (19 of 29) of post-reform also disagreed or strongly disagreed with this statement, 14 percent (4 of 29) remained neutral, and 20 percent (6 of 29) agreed or strongly agree. Sixty percent (3 of 5) of those who failed the exam disagreed or strongly disagreed, and 40 percent (2 of 5) agreed. Sixty-eight percent (32 of 47) of those who passed disagreed or strongly disagreed, 13 percent (6 of 47) remained neutral, and 19 percent (9 of 47) agreed or strongly agreed.

Survey question eleven reads, "Having higher academic standards will help make Cambodia more economically competitive in the world." Not a single survey participant disagreed with this statement. Ninety-six percent (22 of 23) of pre-reform agreed or

strongly agreed with this, and only four percent (1 of 23) remained neutral. Ninety-three percent (27 of 29) of post-reform agreed or strongly agreed, and only 7 percent (2 of 29) remained neutral.

One-hundred percent of those who failed the exam, and 93 percent (44 of 47) of those who passed, agreed or strongly agreed. Only six percent (3 of 47) of those who passed remained neutral.

Survey question twelve reads, "A country's education standards can affect how it is perceived." Eighty-seven percent (20 of 23) of pre-reform participants agreed or strongly agreed with this statement, nine percent (2 of 23) remained neutral, and four percent (1 of 23) disagreed. Eighty-three percent (24 of 29) of post-reform participants agreed or strongly agreed, 10 percent (3 of 29) remained neutral, and seven percent (2 of 29) disagreed.

Forty percent (2 of 5) of those who failed the exam agreed or strongly agreed. Another 40 percent (2 of 5) remained neutral. The final 20 percent (1 of 5) disagreed. Eighty-nine percent (42 of 47) of those participants who passed the exam agreed or strongly agreed, six percent (3 of 47) remained neutral, and four percent (2 of 47) disagreed.

Focus Group Responses

The focus group responses were analyzed for themes in beliefs. Five general themes emerged from the data: 1) Reforms will lead to more investment and development of the country, 2) Reforms will allow for students to be more competitive with graduates from other countries (particularly ASEAN countries), 3) Pre-reform test takers are now competing with post-reform test takers for jobs, 4) Discussion about actual changes to the

National Grade 12 Examination, and 5) Reforms are inspiring matriculation, despite the economic situation of many families.

Participants believed that education reform, and specifically holding students to higher standards in ways such as the new National Grade 12 Examination, would mean more investors would take an interest in the development of Cambodia. It would also make university graduates from Cambodia more competitive with other countries, particularly university graduates from other ASEAN countries. As one participant stated, "...if we have a lot of educated person [sic], like human resource, it can attract local investors and also international investor to... make our Cambodia [sic] more develop[ed]".

Participants also believed education reform will allow Cambodia to become more competitive in the global markets. One participant stated, "...now we are member of ASEAN... if Cambodia have a lot of human resource, the good quality [sic], we can compete with them [other ASEAN students and graduates] with job opportunity [sic]." One participant mentioned that not only are Cambodians competing with other countries, they are also competing with themselves when it comes to the job market. Focus group participants stated that people who took the National Grade 12 Examination prior to the reforms in 2014 are less likely to be hired by employers than those who have taken the post-reform National Grade 12 Examination. One participant responded with, "...But, maybe, I will, for the young generation that just finished grade 12 exam, I think that maybe sometime they will compete with them too."

The final underlying theme was that focus group participants believed that education reforms, even the National Grade 12 Examination, are inspiring matriculation

into universities. The participant's response to this was, "I think it [the reforms] can inspire all the student in grade 9 that have like the low, low economic [status]." While there will always be students who are held back because of lack of resources, having to drop out to take care of their family financially, and/or doing poorly in grade nine, the participants stated that they believed these changes would inspire Cambodians to work harder to make themselves more competitive for the future. A complete Focus Group transcript can be found in Appendix C.

Findings

The data provided some unexpected insights. It was hypothesized that there would be no statistical differences between pre- and post-reform test-taker responses. However, there were questions that had significantly different responses between comparison groups: pre- versus post-reform test-takers and participants who failed the exam versus participants who passed the exam.

Based on the data, it seems that most post-reform participants believe more strongly than their pre-reform peers that the National Grade 12 Examination reforms are improving a student's ability to perform well on university-level work. Post-reform participants also felt more strongly that the educational reforms would benefit Cambodia but not that they would improve Cambodia's economy. Because the sample was skewed in favor of those who passed the examination (a minority in the overall population but the majority of this sample), it may be that these students envision a brighter future for themselves because they stand out more than less prepared peers. Although these successful students may feel better prepared for university work, they may also know under-employed university graduates. (Dy, 2015) finds that Cambodian engineers earn one tenth the salary of foreign engineers working in Cambodia. Knowledge of the pay gaps between Cambodians and foreigners working in their country may color the perceptions of the study participants.

Participants largely disagreed with statement four, "The education system has changed since I started school as a child". This was the opposite of what was hypothesized, According to Koyanagi (2017), the traditional system of teacher bribes is still prevalent in Cambodian schools. It may be that respondents are thinking of this system in their response to this question. Further research is needed to ascertain if this is

the case or if some other aspect of the system remains unchanged in the minds of Cambodians.

Post-reform participants agreed more strongly than pre-reform participants that educational reforms would benefit Cambodia in the future. It may be that the post-reform participants feel more confident about their job prospects and this in turn influenced their views. In the focus group, many participants believed that Cambodians who have taken the reformed National Grade 12 Examination will be more competitive with other ASEAN students. They believed that these post-reform students would also be more likely to be chosen for a job over someone who took the exam prior to the reform. This is likely due to the idea that the reformed exam holds students to higher standards, making them more desirable for positions, especially those in the government (i.e., ministries). In summary, post-reform participants have better job opportunities and, therefore, likely a more positive outlook on life, whereas pre-reform participants may be "feeling left behind" because they are not viewed as comparable to those who took the post-reform exam.

Survey statement seven reads, "The changes being made to the education system in Cambodia will not affect the economic position of the country." Like question six, t-test analysis showed significant differences between pre- and post-reform respondents ($p \le 0.02$). Overall, respondents agreed with this statement, which is in contrast to their response on question six where they also agreed. This contradiction may be due, in part, to the word "not" in the statement, which may have led to confusion. It may also be that Cambodians feel the reforms will benefit the country in ways other than the economy.

Many young Cambodians are finding it difficult to obtain work commensurate with their skills. This could affect how they view benefits to the economy.

Despite many survey participants believing that the education reforms in Cambodia would not impact the economic position of their country, the focus group responses gave a different impression. Many participants believed that these reforms, particularly the ones made to the National Grade 12 Examination, would make Cambodia more economically competitive, particularly with other ASEAN countries. A few focus group participants even stated that they believed that these reforms would lead investors to become interested in the development of Cambodia, which would impact many aspects of the country, including the tourism sector.

The participants were unified in their belief that changes to the education system were necessary. Nearly all of them disagreed or strongly disagreed with the statement, "Changes to the education system should not have been made." Interestingly, those who failed the exam also disagreed with this statement. The themes emerging in the focus group responses reiterate why participants may believe these reforms were needed. Theme one and two are significant in explaining these responses, especially looking at the fact that Cambodia is one of the poorest countries in the Southeast Asian region. Theme one and two involve the belief that these reforms will lead to investors taking more of an interest in developing Cambodia, as well as making Cambodian university graduates more competitive with graduates from other countries, particularly ASEAN countries. This shows that even those who failed the National Grade 12 Examination believe that the system needed to be reformed.

Prior to arriving in Cambodia, it was hypothesized that there would be greater differences between the responses of pre-reform test-taking participants and post-reform test-taking participants because of their perceptions of how rapidly the reforms took place. However, there was only a statistical significance found in three statements:

Numbers three, six, and seven. Because the sample size of participants who failed was quite small (N=5), the chance of a Type II statistical error is quite high. Type II errors are a failure to reject a null hypothesis when it is false. More studies with larger and more representative samples are needed to determine the validity of this study's findings.

Overall, a vast majority of participants, regardless of comparison group, agreed with the reforms. The biggest surprise in responses was that participants overwhelmingly did not believe that the education system itself had been changed. Based on this data, participants support the reform-minded approach of their government, and they even support the newly reformed National Grade 12 Examination, but they likely view these changes as being isolated, rather than systemic.

Limitations

In Cambodia, culture is a limitation when it comes to research. It usually restricts responses to survey questions to "neutral". This was an expected response, which is one reason why the focus group was planned as a contingency, in case more respondents were unwilling to share their feelings. The goal of the focus group was to go beyond the five-point Likert scale because the chances of receiving all, or mostly, neutral responses was high, based on the culture of the country.

It was very surprising to find survey participants marking the "Strongly Disagree" or "Strongly Agree" answers on the statements. In a society such as Cambodia, being willing to share that one feels *strongly* about anything is impressive because Buddhist culture emphasizes equanimity. Culturally, expressing fervor for something is frowned upon. It is more difficult to have Cambodians express themselves in non-neutral fashions, which has likely stemmed from the culture itself, as well as Cambodia trying to rebuild after decades of war. Further research is needed to understand the source of the strong feelings on this topic.

One limitation of this study was that the sample size was not representative. Less than 10 percent of Cambodians take the National Grade 12 Examination to begin with (Dickinson, In press, 2018). As an undergraduate with limited resources, it was difficult to find enough people who failed the exam to be truly representative. While the snowballing sampling method is often criticized as it tends to produce a non-representative sample, it was actually used to diversify this sample. The sample started with university students who, by definition, all passed the National Grade 12 Examination, putting them in the minority of Cambodians who took the exam. Using

existing social networks led to finding Cambodians who had not passed the exam.

Enabling participants to administer the survey to friends who failed the exam, without the presence of a researcher, meant that Cambodians who failed the test could participate in the research without having to worry about "saving face".

Implications and Future Research

It is imperative to state that this was a pilot study. Research like this has not been done. Despite the small sample size, limited time, and nonexistent budget, data from this study were interesting. However, the results cannot be generalized to fit the general population. More research needs to be done with larger, and more representative samples.

Based on survey results, it has become clear that Cambodians, even those who failed the National Grade 12 Examination, support the reforms in the country, particularly those being made to the exam. However, this assessment is based upon the results of the five survey participants who failed the exam and may not be representative of the population as a whole. Regardless, support for the reforms in the education sector is a big step forward for Cambodia, as it increasingly competes in the global and ASEAN markets. As is supported in survey and focus group results, Cambodians believe that the reforms being made to the education system will make Cambodia more economically competitive, which was an initial goal of Minister Hang Chuon Naron. Studies are needed to determine if post-reform Cambodia university graduates' salaries increase to levels comparable to their foreign counterparts.

Focus group participants made it clear that they believe that the reforms will allow Cambodian university graduates to be more competitive with other ASEAN university graduates. Another path of future research is to study whether post-reform graduates actually do perform at a more proficient level in various life and job skills than other ASEAN graduates. Given that Cambodian students perform near the bottom of ASEAN nationals on educational measures, it seems that more reforms, maybe focusing

on building the curriculum taught in K-12 in Cambodia, will be required before this goal is reached.

Further research needs to be done on the impact of the National Grade 12 Examination reforms on K-12 instruction. Prior to the reforms, Cambodian educators were not teaching content during the normal school day, instead requiring students to pay for "tutoring sessions" outside of class. Studies can be done to determine if the teachers have begun teaching the content during regular school hours, if they are still requiring bribes, and/or if the number, and cost, of the bribes have actually increased as a result of the higher stakes tied to the National Grade 12 Examination. Has the type and amount of instruction in the classroom actually changed due to the higher standards required by the exam, or have they stayed the same? What other education reforms have made an impact on K-12 instruction, if any?

Due to the increasing standards needed for students to pass the National Grade 12 Examination and be admitted into any university, another question that should be researched is if the standards across the education system are also improving. If the standards at the high school level are increasing (i.e., the National Grade 12 Examination), are the standards at the university level also improving? If the standards at the university level have not concurrently improved, will the reforms being made to the National Grade 12 Examination even have an impact on the level of skill in graduates of Cambodian universities and make them as competitive as everyone is expecting?

Participants stated that the education system had not changed since they started school as children. More specific studies can be done to determine why they believed this. As stated in the "Findings" section, this response may have been due, in part, to the

confusing wording of the question. However, it could also have to do with how

Cambodians view the education system—do they view it as a whole, or as individual

pieces that come together to form a whole? A reform such as the New Generation School

Initiative (Kampuchean Action for Primary Education (KAPE)), where the Ministry of

Education, Youth, and Sport is investing in certain schools to hold students and teachers

to higher standards, may impact views of how the education system has changed.

Research also needs to investigate the ongoing integrity of the reformed National Grade 12 Examination. The reform itself focused on eliminating the rampant cheating on the exam. The government and various news sources (Retka & Chhengpor, 2015) have made it seem like they have reached the goal of the reform, but a research study could be done to investigate the thoroughness of the anti-cheating reforms and steps taken during the exam. In addition to the "crackdown" on the extensive cheating, the actual exam was completely rewritten for the 2014 reform, even keeping it under "military guard" (Dickinson, 2016). More research should be done to compare the actual changes to the exam questions across the years, from pre- to post-reform, and each year since the original reformed exam in 2014. One more piece of further research that could be conducted is to look at the pass rate of the exam compared to the cut-off scores for passing. For instance, according to Retka and Chhengpor (2015), the cut-off score to pass the National Grade 12 Examination in 2015, one year after the reform, was only a 47 percent. Compared to exam standards and cut-off scores in other countries, this seems noticeably low. Does the increasing passing rate since the reforms were initiated have anything to do with a low cut-off passing score?

Conclusion

Since Minister Hang Chuon Naron was appointed as the Minister of Education, Youth, and Sport in 2013, he has made numerous attempts to reform the education system of Cambodia. His first reform, the changes to the National Grade 12 Examination, caused quite a stir in the headlines, as the passing rate of the exam that grants students access to a university education dramatically decreased. Despite the small sample size, this research has shown that, for the most part, Cambodians seem to agree with the reform-minded approach of the Minister and the government.

While the data collected in the survey responses and the focus group responses were varied in some cases, they confirmed many of the hypotheses formulated prior to the beginning of this study. These include the supposition that Cambodians would agree that the reform to the National Grade 12 Examination would increase a student's ability to perform on university-level work, lead Cambodia to a greater economic position in the global markets and make Cambodian graduates more competitive with graduates from other countries, and that education reform, in general, can be beneficial to a country.

The other hypothesis framed was that there would be significant differences in the responses between different groups, including those who took the exam prior to 2014 (pre-reform) and those who took it in or after 2014 (post-reform), as well as comparing those who failed the exam versus those who passed the exam. While there were not enough participants who failed the exam to have a representative sample, there were statistically significant differences in response to one question (number three), showing that those who passed the exam believed that the changes made to the National Grade 12 Examination do improve a student's ability to perform well on university-level work, whereas those who failed the exam did not believe so. For the pre- versus post-reform

test-taking participants, there were three statements that showed statistically significant differences in their responses: three, six, and seven. The biggest difference was in how many responded with a stronger response (disagreeing or strongly disagreeing, or they chose to agree or strongly agree), but for the most part, their answers were the same, either overwhelmingly agreeing or disagreeing.

As this research was a pilot study, there are ample opportunities to conduct further research to learn more about the impact of these reforms. A few of these opportunities may include analyzing the actual success of post-reform graduates or comparing the passing rate of the exam to the cut-off score required to pass. Another option may involve looking at how the global perception of Cambodia has already changed and will continue to change due to these education reforms, particularly the changes made to the National Grade 12 Examination. Cambodia still has a long way to go to achieve their goals for the Cambodian education system, but as many Cambodians and others around the world believe, education reform is the first step.

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APPENDIX A: IRB DOCUMENTS

Informed Consent in English



INFORMED CONSENT

Study Title: Cambodian Student Beliefs About, and Attitudes Toward, the Changing Education System in

Cambodia

Principal Investigator: Desereah Tolbert Faculty Advisor: Gail Dickinson

This consent form will give you the information you will need to understand why this research study is being done and why you are being invited to participate. It will also describe what you will need to do to participate as well as any known risks, inconveniences or discomforts that you may have while participating. We encourage you to ask questions at any time. If you decide to participate, you will be asked to sign this form and it will be a record of your agreement to participate. You will be given a copy of this form to keep.

PURPOSE AND BACKGROUND

You are invited to participate in a research study about the beliefs and attitudes of Cambodian students toward the changing education system in Cambodia. The information gathered will be used in an undergraduate Honors thesis project. You are being asked to participate because you are a student at the Royal University of Phnom Penh in Cambodia and are over the age of 18.

PROCEDURES

1. Your participation

If you agree to be in this study, you will participate in the following:

- A brief survey that will only take about 30 minutes to complete
- You may also be asked to participate in a focus group or an interview

We will set up a time, outside of class, for you all to take the survey. We will contact you as soon as we have decided on a time. It will likely be on the RUPP campus. Should you be selected, the focus group will also likely be on the RUPP campus.

2. Focus Group

If you agree to be in the study, you may be asked to participate in a focus group. We are hoping to invite approximately 10 students to participate in the focus group. The session will last between 30 minutes and an hour. During the focus group, you will be asked to present your beliefs on why survey participants may have responded to the survey questions the way they did. The questions will be generalized, and not based on a specific response to a survey question. For instance, you may be asked, as a group, "A few students responded that they believe that education reform is essential to better the economic welfare of the country of Cambodia. Would any of you like to expand on that thought, or express why you may think this is true, or not?" The interview will be audio-recorded and transcribed, and the researcher may take notes as well. All responses will be kept anonymous, and no names will be stated during the discussion. We ask that you not share what is discussed in the focus group, or on the survey, with anyone else.

RISKS/DISCOMFORTS

Due to the political tension in Cambodia, we understand that there may be risk involved in discussing personal beliefs on political topics. We have attempted to make all survey and focus group questions non-political in nature, and you will never be required to give a political answer, or make your political beliefs known. At any point, if you are uncomfortable answering any of these questions, you may leave them blank or unanswered. You may also withdraw your participation and consent at any time during this study, with no consequences.

BENEFITS/ALTERNATIVES

There will be no direct benefit to you from participating in this study. However, the information that you provide may provide insight into student views of major education system changes, which may assist education reformers and researchers in finding a way to work on changing an entire country's education system with minimal, to no, negative student response.

EXTENT OF CONFIDENTIALITY

Reasonable efforts will be made to keep your personal information and responses private and confidential. Any identifiable information obtained in this study (your name and education classification) will remain confidential and will be disclosed only with your permission or as required by United States federal law. Last names of participants will not be collected. First names will be kept separate from any results. The members of the research team (Desereah Tolbert and Dr. Gail Dickinson) and the Texas State University Office of Research Compliance (ORC) may access the data. The ORC monitors research studies to protect the rights and welfare of research participants.

Your name will not be used in any written reports or publications which result from this research. All survey and focus group data that is collected will be generalized in the final thesis project. Data will be kept on the Texas State University campus for three years (per United States of America federal regulations) after the study is completed, and then it will be destroyed.

PAYMENT/COMPENSATION

There will be no compensation or payment for your participation. Your participation is voluntary only.

PARTICIPATION IS VOLUNTARY

You do not have to be in this study if you do not want to. You may also refuse to answer any questions on the survey or in the focus group, should you feel uncomfortable or at risk in answering them. If you volunteer to be in this study, you may withdraw from it at any time without consequences of any kind or loss of benefits to which you are otherwise entitled.

QUESTIONS

If you have any questions or concerns about your participation in this study, you may contact the Principal Investigator, Desereah Tolbert: dat94@txstate.edu or the faculty advisor, Gail Dickinson: dickinson@txstate.edu or 855-(0)86-750-513

This project, IRB Reference Number 2017658, was approved by the Texas State IRB on Tuesday, May 20, 2017. Pertinent questions or concerns about the research, research participants' rights, and/or research-related injuries to participants should be directed to the IRB Chair, Dr. Jon Lasser 512-245-3413 – (lasser@txstate.edu) or to Monica Gonzales, IRB Regulatory Manager 512-245-2314 - (meg201@txstate.edu).

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	CONSENT

I have read this form and decided that I will participate in the project described above. Its general purposes, the specifics of involvement and possible risks have been explained to my satisfaction. I understand I can withdraw at any time.

Printed Name of Study Participant	Signature of Study Participant	Date
Signature of Person Obtaining Consent		Date

IRB Reference Number: 2017658



ទម្រង់យល់ព្រមចូលរួមក្នុងការស្រាវជ្រាវ

ចំណងជើងអត្ថបទស្រាវជ្រាវ៖ ជំនឿ និងឥរិយាបថរបស់និស្សិតកម្ពុជាចំពោះកំណែទម្រង់ប្រព័ន្ធអប់រំ នៅកម្ពុជា

អ្នកស្រាវជ្រាវបង្គោល៖ Desereah Tolbert

ទីប្រឹក្សាមហាវិទ្យាល័យ៖ Gail Dickinson

ទម្រង់យល់ព្រមនេះនឹងផ្ដល់ជូនលោកអ្នកនូវព័ត៌មានដែលលោកអ្នកត្រូវការដើម្បីស្វែងយល់អំពី មូលហេតុនៃការស្រាវជ្រាវនេះ និងមូលហេតុដែលលោកអ្នកត្រូវបានអញ្ជើញឲ្យចូលរួមក្នុងការស្រាវជ្រាវ នេះ។ វាក៍ពិពណ៌នាអំពីអ្វីដែលលោកអ្នកត្រូវធ្វើដើម្បីចូលរួម ព្រមទាំងហានិភ័យ ឬក៏ការលំបាកដែល លោកអ្នកអាចមាននៅពេលចូលរួមក្នុងការស្រាវជ្រាវនេះ។ យើងខ្ញុំសូមលើកទឹកចិត្តឲ្យលោកអ្នកសូរសំណូរ គ្រប់ពេលវេលា។ ប្រសិនបើលោកអ្នកសម្រេចចិត្តចូលរួមក្នុងការស្រាវជ្រាវនេះ លោកអ្នកនឹងត្រូវបានស្នើសុំ ឲ្យចុះហត្ថលេខាលើទម្រង់នេះ ហើយវានឹងជាកំណត់ត្រានៃកិច្ចព្រមព្រៀងរបស់លោកអ្នកក្នុងការចូលរួមផង ដែរ។ លោកអ្នកនឹងទទួលបានទម្រង់នេះចំនួនមួយច្បាប់ដើម្បីរក្សាទុក។

គោលបំណង និងព័ត៌មានមូលដ្ឋាន

លោកអ្នកត្រូវបានអញ្ជើញឲ្យចូលរួមក្នុងការស្រាវជ្រាវអំពីជំនឿ និងអាកប្បកិរិយារបស់និស្សិតកម្ពុជា ចំពោះកំណែទម្រង់ប្រព័ន្ធអប់រំនៅកម្ពុជា។ ព័ត៌មានដែលប្រមូលបាននឹងត្រូវបានប្រើប្រាស់ក្នុងគម្រោង សរសេរនិក្ខេបបទថ្នាក់បរិញ្ញាបត្រ។ លោកអ្នកត្រូវបានស្នើសុំឲ្យចូលរួមក្នុងការស្រាវជ្រាវនេះដោយសារតែ លោកអ្នកគឺជានិស្សិតនៃសាកលវិទ្យាល័យភូមិន្ទុភ្នំពេញ នៅប្រទេសកម្ពុជា ហើយមានអាយុចាប់ពី 18 ឆ្នាំ ឡើងទៅ។

នីតិវិធី

១. ការចូលរួមរបស់លោកអ្នក

ប្រសិនបើលោកអ្នកឯកភាពថា នឹងចូលរួមក្នុងការស្រាវជ្រាវនេះ លោកអ្នកនឹងចូលរួមក្នុងកិច្ចការដូច ខាងក្រោម៖

- ការស្ទង់មតិខ្លីដែលនឹងចំណាយពេលបំពេញត្រឹមតែ 30 នាទី
- លោកអ្នកក៏អាចត្រូវបានស្នើសុំឲ្យចូលរួមក្នុងកិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សា

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យើងខ្ញុំនឹងកំណត់ពេលវេលា នៅខាងក្រៅថ្នាក់រៀន សម្រាប់លោកអ្នកទាំងអស់គ្នាបំពេញកម្រង សំណូរ។ យើងខ្ញុំនឹងទាក់ទងលោកអ្នកឲ្យបានឆាប់តាមដែលយើងសម្រេចនៅពេលណាមួយ។ ការបំពេញ កម្រងសំណូរគឺទំនងជាធ្វើឡើងក្នុងបរិវេណសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ។ ប្រសិនបើលោកអ្នកត្រូវបាន ជ្រើសរើស កិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សាក៏នឹងធ្វើឡើងក្នុងបរិវេណសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញផងដែរ។

២. កិច្ចសម្ភាសន៍ជាក្រមពិភាក្សា

ប្រសិនបើលោកអ្នកយល់ព្រមចូលរួមក្នុងការស្រាវជ្រាវ លោកអ្នកអាចត្រូវបានស្នើសុំឲ្យចូលរួមក្នុង
កិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សា។ យើងសង្ឃឹមថា នឹងអញ្ជើញសិស្សប្រហែល 10 នាក់ចូលរួមក្នុង
កិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សា។ កិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សានេះមានរយៈពេលពី 30 នាទី ទៅ 1 ម៉ោង។
ក្នុងអំឡុងពេលធ្វើកិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សា លោកអ្នកនឹងត្រូវបានសូវឲ្យបង្ហាញនូវជំនឿរបស់លោកអ្នក
អំពីមូលហេតុដែលនិស្សិតចូលរួមក្នុងការស្ទង់មតិអាចឆ្លើយតបទៅនឹងសំណូវស្ទង់មតិតាមរបៀបដែលពួក
គេបានធ្វើ។ សំណូវនឹងត្រូវបានធ្វើទូទៅកម្ម ហើយមិនផ្អែកលើចម្លើយជាក់លាក់ចំពោះសំណូវស្ទង់មតិទេ។
ឧទាហរណ៍ លោកអ្នកអាចត្រូវបានសូវជាក្រុមថា «និស្សិតមួយចំនូនបានឆ្លើយតបថា ពួកគេជឿថា កំណែ
ទម្រង់វិស័យអប់រំគឺមានសារៈសំខាន់ ដើម្បីធ្វើឲ្យប្រសើរឡើងនូវសុខុមាលភាពសេដ្ឋកិច្ចរបស់ប្រទេស
កម្ពុជា។ តើមាននណាម្នាក់ចង់ពង្រីកគំនិតនេះ ឬក៍បង្ហាញនូវមូលហេតុដែលលោកអ្នកគិតថា នេះគឺជា
ការពិតឬទេ?» កិច្ចសម្ភាសន៍នឹងត្រូវបានថតជាសម្លេង និងធ្វើប្រតិចារិកទិន្នន័យ ហើយអ្នកស្រាវជ្រាវក៍អាច
ធ្វើការកត់ត្រាទិន្នន័យផងដែរ។ គ្រប់ចម្លើយទាំងអស់នឹងត្រូវរក្សាជាអនាមិក ហើយគ្មានការបញ្ជាក់ឈ្មោះ
ក្នុងអំឡុងពេលពិភាក្សាឡើយ។ យើងខ្ញុំស្នើសុំឲ្យលោកអ្នកកុំចែករំលែកអ្វដែលត្រូវពិភាក្សាក្នុង
កិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សា ឬក៍ការស្ទង់មតិជាមួយជនណាម្នាក់ផ្សេងទៀតឲ្យសោះ។

ហានិភ័យ / ការលំបាក

ដោយសារតែភាពតានតឹងផ្នែកនយោបាយនៅកម្ពុជា យើងយល់ថា វាអាចមានហានិភ័យក្នុង ការពិភាក្សាអំពីជំនឿថ្នាល់ខ្លួនលើប្រធានបទនយោបាយ។ យើងខ្ញុំបានព្យាយាមធ្វើឲ្យសំណូរសម្រាប់ការ ស្ទង់មតិ និងកិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សាមិនមានលក្ខណៈនយោបាយ ហើយលោកអ្នកមិនចាំបាច់ផ្តល់ ចម្លើយដែលមានលក្ខណៈនយោបាយ ឬក៏ធ្វើឲ្យគេដឹងអំពីជំនឿនយោបាយរបស់លោកអ្នកឡើយ។ នៅ ចំណុចណាមួយ ប្រសិនបើលោកអ្នកមិនចង់ឆ្លើយសំណូរណាមួយទេ លោកអ្នកអាចបដិសេដ្ឋមិនឆ្លើយ។ លោកអ្នកក៍អាចដកខ្លួនចេញពីការចូលរួម និងការព្រមព្រៀងរបស់លោកអ្នកនៅពេលណាក៏បានក្នុងអំឡុង ពេលស្រាវជ្រាវនេះ ដោយគ្មានផលវិបាក។

អត្ថប្រយោជន៍ / ការជំនួស

លោកអ្នកមិនបានទទួលផលប្រយោជន៍ផ្ទាល់ពីការចូលរួមក្នុងការស្រាវជ្រាវនេះឡើយ។ ទោះជា ողովվա՜սըច្រព្ញាពិត្យសំណីស្រាច្ចអាច្ចារនេះ 2017658 Page 2 of 4 យ៉ាងណាក៏ដោយ ព័ត៌មានដែលលោកអ្នកផ្ដល់នូវការយល់ដឹងអំពីទស្សន:របស់និស្សិតអំពីកំណែទម្រង់ ប្រព័ន្ធអប់រំសំខាន់ៗ ដែលអាចជួយដល់អ្នកធ្វើកំណែទម្រង់ និងអ្នកស្រាវជ្រាវស្វែងរកនូវវិធីសាស្ត្រធ្វើកំណែ ទម្រង់ប្រព័ន្ធអប់រំទាំងមូលរបស់ប្រទេសកម្ពុជាដោយមានចម្លើយតិចបំផុតពីនិស្សិតៗ

វិសាលភាពនៃការរក្សាការសម្ងាត់

កិច្ចខិតខំប្រឹងប្រែងសមហេតុផលនឹងត្រូវបានធ្វើឡើងដើម្បីរក្សាព័ត៌មានផ្ទាល់ខ្លួន និងចម្លើយរបស់ លោកអ្នកជាលក្ខណៈឯកជន និងជាការសម្ងាត់។ ព័ត៌មានដែលកំណត់អត្តសញ្ញាណណាមួយដែលទទួល បានក្នុងការស្រាវជ្រាវនេះ (ឈ្មោះ និងនិទ្ទេសរបស់លោកអ្នក) នឹងរក្សាជាការសម្ងាត់ ហើយនឹងត្រូវបាន លាតត្រដាងនៅពេលដែលមានការអនុញ្ញាតរបស់លោកអ្នក ឬក៍មានការតម្រូវពីច្បាប់សហព័ន្ធសហរដ្ឋ អាមេរិក។ នាមខ្លួនរបស់និស្សិតដែលចូលរួមនឹងមិនត្រូវបានប្រមូលឡើយ។ នាមត្រកូលនឹងត្រូវរក្សាទុកដាច់ ដោយឡែកពីលទ្ធផល។ សមាជិកនៃក្រុមស្រាវជ្រាវ (Desereah Tolbert និងបណ្ឌិត Gail Dickinson) និង ការិយាល័យត្រួតពិនិត្យការស្រាវជ្រាវដើម្បីការពារសិទ្ធិ និងសុខុមាលភាពរបស់លោកអ្នកចូលរួមក្នុង ការស្រាវជ្រាវ

ឈ្មោះរបស់លោកអ្នកនឹងមិនគ្រូវបានប្រើនៅក្នុងរបាយការណ៍ ឬក៏អត្ថបទបោះពុម្ពផ្សាយដែលបាន មកពីលទ្ធផលស្រាវជ្រាវនេះឡើយ។ រាល់ការស្ទង់មតិ និងកិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សាដែលត្រូវបានប្រមូល នឹងត្រូវបានធ្វើទូទៅកម្មនៅក្នុងគម្រោងសរសេរនិក្ខេបបទចុងក្រោយ។ ទិន្នន័យនឹងត្រូវរក្សាទុកនៅសាកល វិទ្យាល័យរដ្ឋតិចសាស់រយៈពេល 3 ឆ្នាំ (តាមបទប្បញ្ញាតិរបស់រដ្ឋសហព័ន្ធសហរដ្ឋអាមេរិច) បន្ទាប់ពី ការស្រាវជ្រាវនេះត្រូវបានបញ្ចប់រួចហើយ វានឹងគ្រូវបំផ្លាញចោល។

ការផ្តល់ប្រាក់/ការផ្តល់សំណង

នឹងគ្មានការផ្ដល់ប្រាក់ ឬការផ្ដល់សំណងសម្រាប់ការចូលរួមរបស់លោកអ្នកឡើយ។ ការចូលរួម របស់លោកអ្នកគឺមានលក្ខណៈស្ម័គ្រចិត្តតែប៉ុណ្ណោះ។

ការចូលរួមមានលក្ខណ:ស្ម័គ្រចិត្ត

លោកអ្នកមិនចាំបាច់ចូលរួមក្នុងការស្រាវជ្រាវប្រសិនបើលោកអ្នកមិនចង់ចូលរួម។ លោកអ្នកក៏ អាចបដិសេធមិនឆ្លើយសំណូរណាមួយនៅក្នុងការស្ទង់មតិ ឬក៏កិច្ចសម្ភាសន៍ជាក្រុមពិភាក្សាផងដែរ ប្រសិនបើលោកអ្នកមានអារម្មណ៍មិនស្រួល ឬមានហានិភ័យក្នុងការឆ្លើយសំណូរទាំងនោះ។ ប្រសិនបើ លោកអ្នកស្ម័គ្រចិត្តចូលរួមក្នុងការស្រាវជ្រាវនេះ លោកអ្នកអាចដកខ្លួនចេញនៅពេលណាមួយក៏បាន ដោយគ្មានផលវិបាកណាមួយ ឬការបាត់បង់អត្ថប្រយោជន៍ណាមួយ ដែលលោកអ្នកមានសិទ្ធិទទួលបាន។

ពាក្យស្នើសុំដែលក្រុមប្រឹក្សាពិនិត្យសំណើស្រាវជ្រារអនុម័ពលេខ 2017658

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សំណូរ

ប្រសិនបើលោកអ្នកមានចមូល់ ឬការព្រួយបារម្ភអំពីការចូលរួមរបស់លោកអ្នកនៅក្នុងការស្រាវជ្រាវ នេះ លោកអ្នកអាចទាក់ទងអ្នកស្រាវជ្រាវបង្គោលឈ្មោះ Desereah Tolbert: dat94@txstate.edu ឬក៏ ទីប្រឹក្សាមហាវិទ្យាល័យឈ្មោះ Gail Dickinson: dickinson@txstate.edu ឬ 855- (0) 86- 750-513។

គម្រោងស្រាវជ្រាវនេះដែលលេខយោង 2017658 ត្រូវបានក្រុមប្រឹក្សាពិនិត្យសំណើស្រាវជ្រាវរដ្ឋតិច សាស់អនុម័ត នៅថ្ងៃអង្គារទី 20 ខែ ឧសភា ឆ្នាំ 2017។ សំណូរសំខាន់១ ឬការព្រួយបារម្ភពាក់ព័ន្ធ សិទ្ធិរបស់ អ្នកចូលរួមក្នុងការស្រាវជ្រាវ និង/ឬរបូសស្នាមទាក់ទងនឹងការស្រាវជ្រាវចំពោះអ្នកចូលរួមគួរតែត្រូវបាន បញ្ជូនទៅប្រធានក្រុមប្រឹក្សាពិនិត្យសំណើស្រាវជ្រាវគឺលោកបណ្ឌិត Jon Lasser តាមរយៈ 512-245-3413 (lasser@txstate.edu) ឬក៏ Monica Gonzales អ្នកគ្រប់គ្រងសំណើស្រាវជ្រាវ តាមរយៈ 512-245-2314 (meg201@txstate.edu)។

ការធ្វើឯកសារយល់ព្រមចូលរួមក្នុងការស្រាវជ្រាវ

ពាក្យស្នើសុំដែលក្រុមប្រឹក្សាពិនិត្យសំណើស្រាវជ្រាវអនុម័តលេខ 2017658

ខ្ញុំបានអានទម្រង់នេះ ហើយបានសម្រេចថា ខ្ញុំនឹងចូលរួមក្នុងគម្រោងដែលបានរៀបរាប់ខាងលើ។ គោលបំណងទូទៅរបស់វាគឺថា ការបញ្ជាក់អំពីការចូលរួម និងហានិភ័យអាចកើតមានត្រូវបានពន្យល់រហូត ដល់ខ្ញុំពេញចិត្ត។ ខ្ញុំយល់ថា ខ្ញុំអាចដកខ្លួនចេញពីការស្រាវជ្រាវនេះបានគ្រប់ពេលវេលា។

ឈ្មោះរបស់និស្សិតចូលរួមក្នុង	ហត្ថលេខា របស់និស្សិតចូលរួមក្នុង	កាលបរិច្ឆេទ
ការស្រាវជ្រាវ	ការស្រាវជ្រាវ	
ហត្ថលេខារបស់និស្សិតដែលទទូលការយ	ល់ព្រមចូលរួមក្នុងការស្រាវជ្រាវ	កាលបរិច្ឆេទ
លេខយោងរបស់ក្រុមប្រឹក្សាពិនិត្យសំណើ្រ	ហវជ្រាវ៖ 2017658	

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Survey Cover Letter



Desereah Tolbert, an undergraduate Honors College student at Texas State University, is conducting a research study to gather Cambodian student attitudes toward, and beliefs about, the changing education system in Cambodia. You are being asked to complete this survey because you are a university student at the Royal University of Phnom Penh in Cambodia.

Participation is voluntary. The written survey will take approximately 30 minutes or less to complete. You must be at least 18 years old to take this survey.

This study involves no foreseeable serious risks. Due to the political tension in the country, we have attempted to minimalize all risks associated with your answers to this survey. No question will specifically ask you about your political beliefs, nor will any question require a political response. We ask that you try to answer all questions; however, if there are any items that make you uncomfortable or that you would prefer to skip, please leave the answer blank. Your responses are anonymous and will be generalized in the final thesis project. Of the survey participants, at least 10 will be asked to also participate in a focus group/interview to provide further explanation for certain beliefs and attitudes.

If you have any questions or concerns, feel free to contact Desereah Tolbert or her faculty advisor:

Applicant Name, Desereah Tolbert

Supporting faculty Name, Dr. Gail Dickinson

Academic Department: Curriculum & Instruction Academic Department: Curriculum & Instruction

Cambodian Phone number:

Cambodian Phone number: 855-(0)86-750-513

Email: dat94@txstate.edu

Email: dickinson@txstate.edu

This project, IRB Reference Number 2017658, was approved by the Texas State IRB on Tuesday, May 30, 2017. Pertinent questions or concerns about the research, research participants' rights, and/or research-related injuries to participants should be directed to the IRB chair, Dr. Jon Lasser 512-245-3413 – (lasser@txstate.edu) or to Monica Gonzales, IRB Regulatory Manager 512-245-2334 - (meg201@txstate.edu).

If you would prefer not to participate, please do not fill out a survey.

If you consent to participate, please complete the survey, as well as the written consent form.

IRB Reference Number: 2017658

Survey (English)

IRB Reference N	lumber:	2017	658
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- 1) What is your highest education level?
 - a. High school certificate (graduate)
 - b. University—first year
 - c. University—second year
 - d. University—third year
 - e. University—fourth year

Have you ever failed the National Grade 12 Exam?

- f. University graduate
- 2) What year did you take the grade 12 exam?

Please rate the following

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Changes to the national grade 12 exam, starting in 2015, have not improved a student's ability to perform well on university-level work.					
The education system has changed since I started school as a child.					
Students who passed the new grade 12 exam are better prepared for University-level work than students who took the older version of the exam.					
I believe that the changes being made to the education system will be beneficial to Cambodia in the future.					
The changes being made to the education system in Cambodia will not affect the economic position of the country.					
The education system should not have been reformed (changed) .					
Being accepted into a university is more difficult since the changes were made to the national grade 12 exam.					
The changes made to the education system will not change the global perception of Cambodia.					
Having higher academic standards will help make Cambodia more economically competitive in the world.					
A country's education standards can affect how it is perceived.					

Yes: No:

Survey (Khmer)

លេខយោងរបស់ក្រុមប្រឹក្សាពិនិត្យសំណើស្រាវជ្រាវ (IRB Reference No.)៖ 2017658

- 1) តើកម្រិតអប់រំខ្ពស់បំផុតរបស់លោកអ្នកស្ថិតនៅកម្រិតណា?
 - ក. សិស្សបញ្ចប់សញ្ញាបត្រមធ្យមសិក្សាទុតិយភូមិ (បានបញ្ចប់ការសិក្សា)
 - ខ. និស្សិតឆ្នាំទី 1
 - គ. និស្សិតឆ្នាំទី 2
 - ឃ. និស្សិតឆ្នាំទី 3
 - ង. និស្សិតឆ្នាំទី 4
 - ច. និស្សិតដែលបញ្ចប់ការសិក្សា
- គើលោកអ្នកប្រឡងថ្នាក់ទី 12 នៅឆ្នាំណា? _____
 សូមកំណត់ពិន្ទុដូចខាងក្រោម៖

'	មិនយល់ស្របខ្លាំង	មិនយល់ស្រប	អព្យាក្រិត	យល់ស្រប	យល់ស្របខ្លាំង
កំណែទម្រង់ការប្រឡងថ្នាក់ជាតិថ្នាក់ទី 12 ដែលចាប់ផ្តើមនៅឆ្នាំ 2015 មិនបាន					
ធ្វើឲ្យប្រសើរឡើងនូវសមត្ថភាពរបស់និស្សិតក្នុងការធ្វើកិច្ចការនៅសាកលវិទ្យា ល័យឡើយ។					
ប្រព័ន្ធអប់រំមានកំណែទម្រង់ ចាប់តាំងពីខ្ញុំបានចូលរៀនកាលនៅវ័យកុមារ។					
សិស្សដែលបានប្រឡងយកសញ្ញាប័ត្រថ្នាក់ទី12 ថ្មី ត្រូវបានត្រៀមលក្ខណៈ យ៉ាងល្អប្រសើរសម្រាប់កិច្ចការនៅសាកលវិទ្យាល័យច្រើនជាងសិស្សដែលបាន ប្រឡងកាលពីមុន។					
ខ្ញុំជឿជាក់ថា កំណែទម្រង់ប្រព័ន្ធអប់រំ ដែលកំពុងត្រូវបានធ្វើឡើងនឹងផ្តល់ ផលប្រយោជន៍ដល់ប្រទេសកម្ពុជានាពេលអនាគត។					
កំណែទម្រង់ប្រព័ន្ធអប់រំនៅកម្ពុជានឹងមិនប៉ះពាល់ដល់ស្ថានភាពសេដ្ឋកិច្ចរបស់ ប្រទេសកម្ពុជាឡើយ។					
ប្រព័ន្ធអប់រំមិនគូរត្រូវបានធ្វើកំណែទម្រង់ឡើយ (ផ្លាស់ប្តូរ)។					
ការចូលរៀននៅសកលវិទ្យាល័យមានការលំបាកជាងមុនដោយសារតែកំណែ ទម្រង់ការប្រទ្បងថ្នាក់ជាតិថ្នាក់ទី 12។					
កំណែទម្រង់ប្រព័ន្ធអប់រំនឹងមិនផ្លាស់ប្តូរទស្សន:ទូទៅមកលើប្រទេសកម្ពុជាឡើយ។					
ការមានស្តង់ដារអប់រំខ្ពស់ជាងមុននឹងជួយធ្វើឲ្យកម្ពុជាកាន់តែមានភាពប្រកួត ប្រជែងផ្នែកសេដ្ឋកិច្ចជាងមុននៅក្នុងពិភពលោក។					
ស្តង់ដារអប់រំរបស់ប្រទេសកម្ពុជាអាចជះឥទ្ធិពលដល់ទស្សនៈយល់ឃើញអំពី ប្រទេសកម្ពុជា។					

Interview/Focus Group Script



INTERVIEW/FOCUS GROUP SCRIPT

Study Title: Cambodian Student Beliefs About, and Attitudes Toward, the Changing Education System in

Cambodia

Principal Investigator: Desereah Tolbert Faculty Advisor: Dr. Gail Dickinson

Investigator will collect consent forms.

Focus Group Welcome: "Welcome and thank you for participating in this focus group." **Interview Welcome:** "Thank you for agreeing to speak with me today."

"The purpose of this focus group/interview is to get your feedback about the feelings and attitudes expressed in the survey that you all took. The purpose of the survey was to gather you and your fellow student's attitudes toward, and beliefs about, the changing education system here in Cambodia. Please remember that this entire process is completely voluntary, and you will face no consequences if you choose to not participate, or if you choose to withdraw your participation after beginning.

"The questions that will be asked will be based on a generalized gathering of the survey responses. We are hoping, through this focus group/interview, that you all will be able to shed some light on some of the feelings expressed by you and your fellow students. While we are hoping that you all will be willing to assist us in gathering this research and data, I would like to make it clear that you are not required to answer any of these questions, particularly if they make you feel uncomfortable. If at any time, you would like to leave the group, please feel free to step out. If you feel uncomfortable in the group setting, please let me know, and I will be more than happy to do a one-on-one interview with you, should you want to try that instead. We understand the political situation in the country, as well, and we encourage you to be particularly careful of your responses if you believe they might potentially put you at any type of risk. Our questions are not aimed at asking you to express your political beliefs or opinions.

"We'd like to remind you that to protect the privacy of focus group/interview members, no names will be stated, last names will not be collected, and we encourage that you, also, do not state any names of the survey participants, or any names in this room. The transcript of this recording will be kept safe, and the use of your responses both here in the focus group, as well on the survey, will be generalized, not specified, in the final thesis project. We ask that you not share what is discussed in this room, or on the survey, with anyone else."

"The focus group/interview will last about 30 minutes to one hour, and we will audiotape the discussion to make sure that it is recorded accurately."

"Do you have any questions for us before we begin?"

IRB Reference Number: 2017658

IRB approved application # 2017658

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Focus Group Sample Questions

- 1) A few survey participants seemed to express frustration at the changes made to the national grade 12 exam. Would anyone care to share why this may be a common feeling?
- 2) Survey data has shown that many students believe that holding individuals to a higher academic standard will better the country in many ways. Would any of you like to share why you believe, or do not believe, that increased academic standards could be beneficial to changing the status of Cambodia?
- 3) The reform process of the education system here in Cambodia is recent, starting in about 2014, with the appointment of the new Minister of Education—Dr. Hang Chuon Naron. It seems that most of you had taken the grade 12 exam prior to 2015. Do you still feel affected by it? How do you think it changed the country's perspective on education?
- 4) Many of you believe that education is important when it comes to the worldview of a country. Why do you believe education is so important?
- 5) Do any of you feel that the changes made to the education system will lead to more students continuing their education past the ninth grade? What about past grade 12?

APPENDIX B: FOCUS GROUP QUESTIONS

Below is a list of actual focus group questions that were created based on survey response data. As is apparent, they are very similar to the focus group sample questions submitted for Texas State IRB Approval. This is due to the fact that the survey responses were relatively expected.

- 1) A few survey participants seemed to express frustration at the changes made to the national grade 12 exam. Would anyone care to share why this may be a common feeling?
- 2) Survey data has shown that many students believe that holding individuals to a higher academic standard will better the country in many ways. Would any of you like to share why you believe, or do not believe, that increased academic standards could be beneficial to changing the status of Cambodia?
- 3) For those who took the pre-reform exam—do you think these people are still affected by the changes to the National Grade 12 Exam even though they did not take the new exam?
- 4) How do you think the reforms made to the National Grade 12 Exam changed Cambodia's perspective on education?
- 5) Many of you believe that education is important in the way that other countries view Cambodia. Why do you believe education so important?
- 6) Do you think the changes made to the education system will inspire students to continue past the 9th grade and then past the 12th grade?

APPENDIX C: FOCUS GROUP TRANSCRIPT

Below is the transcript of the focus group. The sections highlighted in blue were the focus group questions that are found in Appendix B. Any part that is bolded is either clarifying what is happening in the background, or it is a clarification of what was being stated by the Cambodians. This is a direct transcription, and no changes in spelling or pronunciation were made.

Question 1

Interviewer: "A few of the survey participants seemed to be, uh, to express frustration at the changes made to the National Grade 12 Exam. Um, people were really upset about it, or some people were really, uh, happy that it was changed. So, does anyone think they can shed some light on why there was frustration expressed to the changes being made?"

Participant: "I feel it not a clear question"

Interviewer: "Okay. So, how do I better word this? Um, so when people took the survey, um, there were quite a number of participants who were not happy with the changes that were made to the national grade 12 exam. Does anyone, do you think anyone could tell me why people would not be happy about the changes? Does that make sense?"

Participants: "Yes" **Conversing as a group in Khmer**

Participant: "Because some people think that because of quickly [changing?] education, they cannot repeat it. For example, in 2014, because of change very quickly, the Ministry of Education in Cambodia like very quickly to change to be better, so uh all the students not yet to prepare and not to [??] of changing"

Clarification: Because the changes made to the exam, and the ministry and education system as a whole, occurred so quickly, the 2014 exam testers had little, to no, time to prepare themselves.

Interviewer: "So, they were not better prepared to take the exam?"

Participant: "Yes"

Interviewer: "Okay"

Participant: "One more thing, before we change, we must spend a lot of money to prepare or to build again for education system."

Question 2:

Interviewer: "The survey data shows that a lot of you believed that holding students to a higher academic standard will better the country in a lot of ways. Why do you believe, or not believe, that increased academic standards could be beneficial to changing the status of Cambodia, overseas?"

Participants conversing in Khmer

Interviewer: "A lot of people believed that the... so the education system is changing in Cambodia. Students across all the grades, are being held to higher standards. They're... more is expected of all of you. So, a lot of the survey participants believe that that is going to be good for the country in the future. So, why do you think that it will be good? Why do you think, if you do think, why do you think it will change the perception of Cambodia; how other countries view Cambodia?"

Conversing and translating

Participant: "As the slogan said that 'education is the way (?) that we can change and develop the country'. It is my idea that, if we have, a lot of educated person, like human resource, it can attract local investors and also international investor to come to invest in Cambodia and make our Cambodia more develop, and so Cambodia confident to show it in the, like... global state. (??)

Clarification: If there are more Cambodians with an education, if education becomes more important to/in the country, more investors would be willing to invest in Cambodia, which would allow further development and growth of the country

Participant: "And, one more thing, I think that the human resource in Cambodia will be have more ability to compete with other country like overseas students, yes"

Interviewer: "When you said, you said "compete against other countries', right? What exactly do you mean, do you mean, like, economically, or just socially?"

Participant: "Education"

Interviewer: "So, okay, compete educationally"

Clarification that it is still the same question

Participant: "One more thing, I think that I do believe that if one country have a lot of human resource, it mean it one way we go to develop our country quickly. Yes, exactly"

Participant: "I want to add some about the compete. Like, now we are member of ASEAN, so like, in ASEAN integration, the 10 (?) country together will come and work and they can go across each other country, so employment and job opportunity are all open to each nation. So, that's right, if Cambodia have a lot of human resource, the good quality we can compete with them with job opportunity"

Clarification: ASEAN members have a policy where the students of member countries can travel to other countries and attend their universities for incountry resident rates, rather than non-citizen rates. The participant is expressing, also, that ASEAN member nations are also more willing to have high quality graduates come to work for various companies in their country, hence the "employment and job opportunity are all open to each nation". Higher quality education can lead to better job opportunities for students, both in their own country, as well as in other ASEAN member nations.

Question 3:

Interviewer: "A lot of the survey participants, actually, it looked like, took the old exam, before the changes were made to it. So, do you think those people, if you are one of them, maybe you can answer this, are they still affected by the changes? So, even if they didn't take the new exam?"

Participants: "Can you ask again?

Interviewer: "Yeah, that was a really badly worded question. So, a lot of people took the exam, the old exam, before it was changed. Are they still affected by the new exam? In any way, shape, or form?"

Conversing and translating

Participant: "I think that, it is not affected too much for the students and the people who have take an exam before the changes. So, because, you know, they are the older students, and then for the changing, just from two years ago, and then, like me, before, this changing. So, it seems like it doesn't affect me at all. But, maybe, I will, for the young generation that just finished grade 12 exam, I think that maybe sometime they will compete with them too. So, if we want to take an exam to enroll in ministry of education, or another ministry, maybe they are better than us because of the changing of the education system."

Clarification: The participant believes that, as a whole, students who took the exam prior to the changes in 2014, are not really affected. However, there may be a chance that they will compete with the students who were held to that higher standard (exam testers after reform), in various ways, but mainly in trying to get into a ministry. The competition will be due to the new exam students being "better" than the old exam students because of those changes.

Participant: "It's not like very big effect, but it's sometimes slightly affect due to people that will say like the old generations like they pass, they... the old generation of the exam, they have some corruption and some cheat as well. So, the older people, they might think that they not pass the exam based on their ability. Sometimes they can pass with like corruption and cheat, like people will think like that."

Clarification: The older generation testers played to the corruption of the system, and the test, and most of them cheated [by bribing the teacher/proctor, or just flat out buying the exam and answers]

Conversing in Khmer

Question 4:

Interviewer: "The changes made to the National Grade 12 exam—how do you think it changed Cambodia's perspective on Education?"

Conversing and translating

Participant: "I believe that the quality of education in Cambodia will be improved more, and then we will have enough competition to compete with other students in other countries. Because we started to change the way that we study that it was not good and we changed to good. So, I think that is gonna be better and better. That's why our country will be developed more. Thank you."

Participant: "I think that if the student can get more ability, the real ability than other student who pass the grade 12 exam and also most of the people in other country believe that, 'Oh, the student, the Cambodian student, that, who pass the exam is the real [deal]"

Clarification: Students who take the new grade 12 exam will have more abilities than those that took the older exam. Other countries will see this, and will be more likely to hire, or take interest in, the 'real' students.

Participant: "For my own idea, I think that nowadays education in Cambodia is very interest. I mean that, uh, for the student in grade 12 have to study, such as at my hometown. In 2014, there are many students who fail—just only 25% pass the grade 12 exam. So, after that I look for my friend experience—I think that I must be very [?], I must be study hard to pass my exam in 2015."

Clarification: The participants friend failed the exam in 2014. The participant took what his friend, and other people, went through, and realized that she/he would have to study very hard in order to pass his exam in 2015.

Conversing in Khmer

Participant: "In contrast, in case that in the future it does not go well, as before, in my father's generation, since about year 1990, the educations and exam have strict. People cannot cheat. Like the exam very difficult, and they have a lot of subject to take the exam, to finish the grade 12. And, later on, the exam become easier and there are some corruption and some people can cheat. So, it's become... the way we take the exam are more easier that we can cheat. But, like the exam questions are very difficult and have a lot of subjects for the students to take, so in nowadays case, if that go every year, go every year, with no cheating and no corruption it will be good. But, if there is corruption

and cheating, it will be like it was because we have only 5 subject to take the exam and I think question on the exam are not so difficult as before.

Participant: "For me, I think it's very good because when we change system of education, some of the students can improve their abilities and can change or replace their...(??) because when we change the system of education it's mean we change everything. Student cannot... For example, in 2010, when my sister take exam, most of student can cheat by money or something else, so when they graduate year four, they cannot find a job. Most of them cannot have the job. But, I hope, in the future, if government of Cambodia, they change the system of education, I hope that the student can find a job because their ability"

Question 5:

Interviewer: "We kind of already answered that one, so... I'm gonna ask it again, but... So, many of you believe that education is <u>really</u> important because of... No, hold on. So, many of you believe that education is really important in the way that other countries view Cambodia. So, why do you believe education is so important? You already mentioned because it... you're able to compete more with other countries, economically and educationally, but was there anything else?"

Discussion and translation in Khmer

Participant: "I think the importance of education is can improve our lifestyle. Like, we has a good lifestyle and we also have violence in our families."

Education can increase good lifestyle and decrease violence and poverty

Participant: "One more thing, um, my idea, I shall like that impact true our society sector. If we have the high education, or know about everything around us, like, and we know about society order. We can improve our society to set each other around us."

Society can be improved if education quality, and quantity, improves

Participant: "One more thing, is that, you know, education is very important. Can we imagine if we don't have the knowledge? If everyone around the world doesn't have the knowledge in our self. So, how the world gonna be? So, education is very important for ourselves. It can change everything from low to better. It can improve everything by using our idea and knowledge, and then, we, uh, make everything. We started to do everything by our cooperation, and then we use individual knowledge to make more society with the, I can say, modern education system and modern quality of lifestyle"

Education is important to the individual, as well as the society, and world, as a whole. Without individual knowledge, there would be no improvement in the world

Question 6:

Interviewer: "My next question is: Do you think the changes made to the education system will inspire students to continue past the 9th grade? And then to continue past the 12th grade?"

Participant (immediately responds): "Yes, of course!"

Conversing and translating in Khmer

Participant: "For this case, I think it's dependent on the student. For some student, they have the goal to graduate the high school, I think they will be reached. But, for some students, that they sometimes, they poor, or sometimes they have chance to study, or I mean, for the money, they have enough money to graduate, so I think they can reach. But, I think that it still inspire some student who want to graduate and study until the university"

It depends on the student's situation. A lot of students must drop out because they have to support their families. Or, they can't afford the electronics, or tuition, or materials needed to continue on to a higher education level (be it 10th-12th grade or university). Despite this, though, I think the changes will inspire more students to push through the difficulties, and sometimes poverty, to accomplish their goal and graduate, at least, 12th grade, maybe university and better their life.

Participant: "I think is can inspire all the student in grade 9, that have, like the low, low economic, like before we said they have to graduate grade 12 like depend on the money or something else. But, now the education is grade 12 has changed, I think it more inspires other people, or student, have low education"

The changes to the education system especially inspire those who come from a low economic background, or who have low academic levels

Participant: "Before the changing, for the examination, we have, we should have modern electronic, like the smartphone, or some that can the key in exam. So, some student are poor and they don't have enough money to buy these things, so they think they not have enough chance to pass the exam."

Modern electronics are almost a requirement for higher education, nowadays, and the poor students think that if they don't have these electronics, then they have a poor chance to pass the exam or do well in university.

Participant: "I think the inspiration is based on the student. Like, some student do good in grade 9, so they will continue, I'm sure they will continue, to, at least, finish the grade 12 because they will get a lot of opportunity, like if they pass and graduate, they will get a lot of gift and like everything else and so a lot of opportunity. Like, if they get grade A, B, C, they will they rightly pass and become teacher, like primary school teacher, and other opportunity like scholarship to study in university. In contrast, if they not do good

in grade 9, so I can say that they will stop their studying in some way because if they think they do more they will not pass the grade 12, so why they do more?"

Depends on the student. If the student is already doing well in grade 9, they are likely to continue on to grade 12, and maybe even university. However, if they are either not trying, or trying and not doing well, by grade 9, they will likely think 'what's the point of continuing on?' Also, finishing the grade 12 exam, especially with a high grade, opens a lot more doors for people, and this is another contributing factor to more and more people continuing their education. A high grade on an exam is a guaranteed job, at least as, say, a primary school teacher.