

ADVANCING HUMANITY in CAMBODIA

2014 - 2015 Learning Community

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2015 - 2016 Learning Community

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CAMBODIA AND DISABILITY

Jo Ann Burkhardt, McMaster Fellow, 2014-2016

Introduction

The Kingdom of Cambodia continues to live with the effects of the genocide that occurred under the reign of the Khmer Rouge from 1975-1979. It is estimated that over two-million individuals were executed or died of starvation under the Khmer Rouge (Chandler, 2007). The genocide was followed by years of rule under the Vietnamese government. Although the Vietnamese were heralded by some as liberators who ended the death and suffering under the Khmer Rouge, there are other factions that believe that life under the Vietnamese occupation was not much better (Vanleit, 2008). The turmoil associated with Vietnamese rule, together with the genocide that eliminated a significant percentage of the country's educated professionals, and the instability within the government, has resulted in what some consider a detrimental effect on civil life in Cambodia (Cordier, 2014). One such detrimental effect is the lack of training, education and support for individuals with disabilities.

The United Nations and its Convention of the Rights of Persons with Disabilities was signed by Cambodia in 2007, ratified in 2012, and is considered a contributing factor that motivated the Kingdom of Cambodia to focus attention on individuals with disabilities. Cambodia's national disability law was ratified in 2009, as The Law on the Protection and Promotion of the Rights of People with Disabilities. This law provides a framework for a Disability Action Council to begin to address issues of human rights, education, and employment of individuals with disabilities in Cambodia. Currently there are many barriers impeding the full implementation of the 2009 disability law. These barriers include: lack of commitment and accountability from the Cambodian government; social discrimination and stigma; limited access to financial resources; and the lack of trained personnel to train teachers, rehabilitation specialists, counselors, and medical personnel with respect to issues associated with disabilities. It is estimated that between 4.7 and 9.8 percent of the population of Cambodia live with a disability (Cordier, 2014).

Data Collection May 2016

On May 23, 2016, I collected data during a training session. The training was sponsored by a prestigious non-governmental organization ("NGO") on the outskirts of Phnom Penh. Our community partners had formerly requested training on the topic of understanding intellectual disabilities. The training session was three hours in duration. The participants included physicians, psychiatrists, psychologists, case workers, and program directors. In total, I trained forty professionals.

During the training, I asked the same question that was asked of participants in 2014 and 2015. The question was, "Why don't students with disabilities in Cambodia attend school? The prompt was delivered verbally in both English and Khmer.

Data Collection May 2015

McMaster Fellows and Scholars collected data in Cambodia on May 19 and May 23 of 2015. On May 19, participants in a McMaster training session at a large non-governmental organization ("NGO") in Phnom Penh agreed to participate in this study designed to continue to determine the attitude of social service professionals toward children and youth with disabilities. The participants in this training session worked in a variety of positions within the NGO. Participants included three clinical psychologists, two psychiatrists, three project managers, one nurse, one accountant, one driver, and eight counselors. Participants were requested to respond to the prompt "Why don't children and youth with disabilities attend public schools in Cambodia?" The prompt was written on a white board in both Khmer and English. Participants responded to the prompt in writing. Of the participants, ten responded in Khmer and seven in English. I asked the participants to indicate that they had completed writing by placing the paper, face down on their table. The papers were then collected.

In order to begin analyzing the data, the seven responses written in Khmer were translated into English. The responses were read and I began to establish emerging themes from the written responses. The themes that emerged were shame and embarrassment, discrimination, lack of teacher training, fear, and poverty.

On May 23, in Pursat province in Cambodia, seven Buddhist nuns responded orally to the prompt, "Why don't children and youth with disabilities attend public schools in Cambodia?" The nuns responded in Khmer and their responses were translated into English. An initial review of the responses yielded several emerging themes. The emerging themes included, discrimination, fear, shame, poverty and lack trained teachers.

Discussion

A thorough review of the data from May 2016 resulted in a pattern of themes similar to the themes emerging from the data collected in May 2014 and May 2015. It appears that participants believe, and articulated that, in their opinion, students with disabilities do not attend public schools in Cambodia due to discrimination, shame, fear, poverty, and lack of trained teachers.



Interestingly, the participants in the May, 2016, session provided much insight regarding the problem of lack of education for and understanding of students with disabilities but specifically students with intellectual disabilities. Participants clearly articulated that long-held cultural beliefs—especially those aligned with Theravada Buddhism—provided a barrier to educational services for students with intellectual disabilities. Additionally, we discovered that there is no instrument to measure intelligence available in Khmer. Accordingly, it appears that the diagnosis of an intellectual disability occurs only through observation and anecdotal evidence provided by caregivers.

Finally, information there is no translation available in the Khmer language for intellectual disabilities. Currently, some professionals use the term “pekar sate phangna” to identify a person with characteristics consistent with those of one with an intellectual disability. Apparently, this phrase has many interpretations ranging from “mad pig” to “disability of remembrance.” A continuation of the data collection will continue in May of 2017 with a focus on barriers impeding the identification of individuals with intellectual disabilities.

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MEASURING THE IMPACT OF TRAINING SESSIONS FOR PROFESSIONALS IN CAMBODIA

Fred W. Coulter, McMaster Fellow, Cambodia 2014 – 2015

Introduction

The purpose of the proposed research project was to measure the impact of training projects for professionals in Cambodia. The term professionals in this article includes administrators and staff employed by a non-governmental organization (NGO) who attended the training session. In past trips, training in-services for teachers were conducted by McMaster Scholars in the cities of Phnom Penh, Battambang, Tekeo, and several rural school districts. The reason for conducting in-services for teachers was that the Ministry of Education, Youth, and Sport (MoEYS), does not have a systematic professional development program for teachers who are typically under trained from the beginning of their teaching careers (Courtney, 2007). The same lack of systematic professional development applies to the NGO sector as well (Berkvens, Kalyanpur, Kuiper, & Van den Akker, 2012). Scholar projects for the 2014-2015 Cambodian Learning Community included in-depth and detailed training sessions on the topics of post-partum depression, drug resistant tuberculosis, water testing, the importance of using safe water, Google Drive, cardiopulmonary resuscitation and first aid. However, before 2014, only informal evaluation of the trainings was conducted. The previous year's research project asked teachers to respond to prompts on the content and application of the training sessions (Coulter, 2014). The same basic protocol was to be followed in the present research project.

The reason that professionals are undertrained in Cambodia is that during the rule of the Khmer Rouge from 1975-1979, an estimated 1.7 million were killed in a genocide in an attempt to rid Cambodia of perceived corrupting outside influences and return the country to an earlier prosperous time. In his article, Sokhom (2004) wrote that "the Khmer Rouge not only ended virtually all forms of formal education, it also actively sought out and killed the educated population" (p. 141). In the ensuing years after the ouster of the Khmer Rouge by the Vietnamese, the interim government supported by the United Nations and the subsequent governance by Hun Sen as an elected prime minister, the ranks of educated professionals has struggled to reestablish itself. One of the restraints on the emergence of well-equipped professionals was the lack of educational and training materials (Duggan, 1996).

Review of the Literature

According to Berkvens, Kalyanpur, Kuiper, and Van den Akker, J. (2012) the type, duration, and quality of professional development activities conducted in Cambodia varies widely. Many international and local NGO's and the MoEYS itself provide long- and short-term training, workshops, seminars and conferences for professionals in Cambodia. This can include multi-day sessions that take place over the course of weeks or months to one session in one day. This leads to varied effectiveness for the participants to learn and apply their knowledge to their professional practices. Furthermore, the content of courses is decided upon top-down, without taking the learning needs and the appropriate methodologies to address those into account (Tat, 2006).

This need for training sessions on topics relevant to professionals was identified by McMaster Fellows after interviewing NGO administrators and communicating with McMaster School-Cambodian community partners Sophie Stagg, Srey Weaner, and Sun SoVichea. This research project proposes to implement an evaluation process that will measure the impact of the requested training sessions on professional's knowledge and practice.

Methodology

Participants

The participants in the research project were selected using the convenience sample method. Administrators and staff from Cambodian Organization for Children and Development (COCD), Khmer Youth Association, (KYA), and Transcultural Psychosocial Organization (TPO) complete the prompts. A total of 26 responses were collected. Credit must be given to the participants in that 19 of them wrote their answers in English. All of the training sessions took place in Phnom Penh.

Instruments

Two prompts, based on Bloom's Taxonomy (Bloom, 1956), were developed for the professionals to respond to. The process of developing these prompts can be found in a previous article (Coulter, 2014). The first prompt was, *In your own words, what have you learned from today's training sessions?* (understanding and comprehension). The second prompt was, *How would you apply what you have learned today to your professional practice?* (application).



Procedures

Permission to administer the two prompts was given prior to the trip to Cambodia by the Institutional Review Board at Defiance College on May 10, 2015. The participants were given instructions in their own language, Khmer, that their participation was voluntary and that they should not make any identifying marks on the plain paper that was given to them to keep their responses as confidential as possible. The participants were given plain pieces of white paper and given the prompts verbally by the Cambodian translator. They were given as much time as needed to complete writing the prompts. When completed, they placed their papers folded in half in a large manila envelope.

Data Analysis

The professionals' responses were assessed using the Kirkpatrick's *Four-Level Evaluation Training Model* (Kirkpatrick & Kirkpatrick, 2006). The process of developing these prompts can be found in a previous article (Coulter, 2014). Kirkpatrick and Kirkpatrick's (2006) model consists of four levels, (1) reaction, (2) learning, (3) behavior, and (4) results. After all the responses were collected, the Cambodian translator met with the author in private and read the participants' responses aloud in English. The verbal translation was written down to be analyzed using two levels of the Kirkpatrick model. The guiding questions for the analysis for Level 2 was - evaluate if the teachers' knowledge about the topics increased as a result of the training. For Level 3 - evaluate how the teachers stated they would apply the knowledge they have acquired to their teaching practice.

Results

Overall, the results of the training sessions were positive in that the professionals reported they had learned from the sessions and were able to apply what they learned to their practices. The following are examples of their responses. One response that described a day of multiple training sessions was, "Actually all the topics are interesting."

Level 2: What did the professionals learn from the training sessions?

CPR and First Aid:

For me, I am really interested with CPR because these methods can save life especially during shock, swimming.

Sometimes with I meet problems, I can save someone life.

Google Drive:

How to work with document with different place in one time. I can understand how to use gmail. I can keep data in the internet.

Drug Resistant Tuberculosis:

How and why it is important to cure it.

Rhetoric:

Rhetoric, especially ethos, pathos, and logos.

Post-partum Depression:

With your presentation I'm understanding about post partum and mental ill.

I learn a lot to identify post partum depression and to help them.

Level 3: How would you apply what you learned to your professional practice?

CPR and First Aid:

I spread out the information to help people who couldn't join us and in my family. I will use this information in my everyday life.

Google Drive:

Downloading Google Drive, it will help me to work faster and easier than before.

It is practical. We can use across our offices with our colleague with different locations.

Drug Resistant Tuberculosis:

I will share to others staffs (counselors), so they will apply to poor people in community.

Rhetoric:

For my job, I'll learn and search more in Rhetoric in Western Concept to improve on dissemination about mental health care and capacity building to my target groups.

Post-partum Depression:

I will share it with my colleagues, family, and friends. Especially study more about the topic through internet.

Discussion

By assessing the teachers' examples using Kirkpatrick and Kirkpatrick's (2006) two levels, the responses clearly show that participants learned the information presented and were able to apply that knowledge to their professional practices. The professionals' ability to learn the material was certainly enhanced by the presentation method. All the participants were given a printed copy of the presentation in Khmer and the presentation was translated from English to Khmer by a Cambodian translator. In addition, at the end of each presentation, participants were encouraged to ask questions to elaborate on what they had read and heard. Many of the participants took advantage of that opportunity and fielded thoughtful questions for the presenters to answer.

Recommendations for future research would be to continue the evaluation of the training sessions to and ask an additional question. This question would be to identify topic of interest for future training sessions. This would keep the selection of topics to ones requested by community partners. In addition, this would help recruit and select future McMaster Scholars based on the responses. Once a topic is chosen, the process of preparing McMaster Scholars to give their presentations would stay the same. Scholars would participate in the yearlong Cambodian Learning Community, during which time they would thoroughly research their topic, write a complete presentation in English, and work with the McMaster Fellows to revise and edit the presentation. Then once in Cambodia, work with the Fellows to incorporate feedback to tailor each presentation to the participants (teachers, faculty, administrators, or case workers), their particular site (such as urban or rural), and the amount of time allocated for the presentation (this can range from 45 minutes to 2 hours). In order for the scholars to make such adjustments, they have learned their topic at a very deep level. Not only do the participants benefit

from the Scholars' presentations in learning about new topics and how to apply them to their practices, but the students learn by having to internalize the knowledge so that they can teach it to others (Lasater, Upvall, Nielson, Prak, & Ptachcinske, 2012).

A final quote from a participant sums up the whole experience for all of us, "Thank you for your valuable time to let me know this programme."

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UNDERSTANDING RELIGIOUS PRACTICE IN CAMBODIA

Philip Balla, McMaster Scholar, Cambodia 2014 – 2015



Over the course of the eleven years that McMaster Scholars have been working in Cambodia we have observed the influence that Theravada Buddhism has in Cambodian culture. Indeed, the prevalence of Theravada Buddhism requires our learning community to develop a more comprehensive understanding of that tradition in order to make our work more efficacious. This project—now in its second year—aims to employ ethnographic methodologies, and increase cultural competency and religious literacy amongst McMaster Scholars and Fellows.

In preparation for this project I reviewed literature concerning the historical development and influences of religion in Cambodian society. Relevant literature indicates that although Buddhism has been the predominant religion for centuries, Cambodian culture is influenced by a multitude of diverse religious traditions. Indeed, other religious influences have been prevalent

in Cambodia throughout its history, including Hinduism, ancient Khmai tribal beliefs, and superstitions developed in the culture of the Khmer people. Literature also indicates that the Khmer people embrace synthetic combinations of religious influence, and that Khmai religion is very adaptable and resilient.

Furthermore, there is a significant difference between philosophical Buddhism and cultural Buddhism in Cambodia. The two are distinguishable in that the former is developed from the teachings of the Buddha, and the latter has been developed over more than a millennia of practice by populations that were largely illiterate and lacked intellectual or financial resources to access philosophy. The dual purposes of this project were to discover and then to teach about the religious traditions in Cambodia. In furtherance of these objectives, I wrote and videotaped a series of teaching sessions for future learning communities to review. Videos were structured in a series of lessons that covered the life of the Buddha, Dharma (or teachings), and Sangha (or community). Secondly, I utilized three different types of ethnographic methodology—including observation, individual interviews, and group interviews—to increase our understanding of Cambodia cultural and religious traditions.

In Cambodia I observed that Buddhist nuns can be men as well as women. While at a monastery, I observed several Buddhist male nuns working with the monks. Moreover, group interviews indicate that about 10% of young Cambodians are practicing Buddhism. Community partners anticipate, however, that those individuals will practice the religions' as they get older. Some respondents further indicated that there is often little tolerance for other religious traditions in Cambodia. Additionally, respondents offered differing opinions as to whether monks should be political or involved in the community or apolitical and not involved in the community.

Importantly, from my discussions it was apparent that Cambodians emphasize the broader cultural components of Buddhism, and place a decreased emphasis on the religion's more nuanced philosophy. Accordingly, future McMaster scholars should tailor their projects to conform to the modified Buddhist practices practiced by Cambodians. Furthermore, future McMaster scholars should aim to develop partnerships with Buddhist monks in Cambodia due to their increased influence. This project should assist future projects in the Cambodian learning community. This project utilized several means to gather multiple cultural perspectives. Applying this insight should allow our projects to yield stronger influence with the Cambodian people.

UNDERSTANDING RHETORIC: HOW CAMBODIAN ORGANIZATIONS CAN IMPROVE THEIR ORGANIZATIONAL COMMUNICATION

Ian Fasnacht, McMaster Scholar, Cambodia 2014 – 2015

The purpose of this project was to assist Cambodian organizations with understanding how rhetoric and persuasion could improve their internal and external communication. The training provided in this project included: an introduction to rhetoric and how it is used in the United States; the foundational elements of eastern and western rhetoric, according to literature; and eight rhetorical devices found in both Khmer and American rhetoric. After the training, organizations should have understood the different communication styles and how adapting their rhetorical style to different audiences could improve the organization's communication.

Dr. Robert Oliver in 1976 described how western rhetoric was different than eastern rhetoric because the fields derived from different philosophies; with this claim, Dr. Oliver created the field of Eastern rhetoric. Western rhetorical roots begin with Aristotle and the three principles, ethos, pathos, and logos (Borchers 2006, 43). In contrast, Dr. Oliver (1976) claimed Eastern rhetoric began with the Confucian concept of Li, or social harmony and individual discipline (142). Gunarante (2009) notes that the different rhetorical styles were reflective of the different cultures in the eastern and western world. Therefore, Li can be considered an eastern variation on the three Aristotelian truths. Due to the recent creation of the field of eastern rhetoric, and the lack of resources of many eastern nations, there is little research about eastern rhetoric relative to western rhetoric.

Theoretically, the two fields of rhetoric differ, but rhetorical devices are present in both styles. *American Rhetoric* is an online tool for communication and English teachers who are presenting rhetoric to students of all ages. The website lists many rhetoric devices along with examples. While not all rhetorical devices may be applicable to both eastern and western rhetoric, after a survey of speeches by Cambodian officials, eight rhetorical devices were present in both fields of rhetoric. These devices were apposition, allusion, sentenia, enumeration, hyperbole, climax, irony, and oxymoron. The presence of these eight devices is likely reflective of a growing intercultural and interconnect world, linked by the media and international organizations (Korhonen 2008).

"Understanding Rhetoric: How Cambodian Organizations Can Improve Their Organizational Communication" was presented five times throughout Cambodia. I conducted training at the Khmer Youth Organization ("KYA") and Transcultural Psychosocial Organization ("TPO") in Phnom Phen, Cambodia and Meanchey University in Banteay Meanchey, Cambodia. At Meanchey University, the training was provided three times. In total, the project was presented to one hundred and nine students and thirty-nine non-governmental organization and higher education employees, one hundred and forty-eight individuals in total. The training was presented through a combination of lecture and interactive activities. Interaction was generated through audience questions to check for comprehension.



Training at KYA was presented to twelve professionals who operated various projects. Initially, the project managers struggled to understand western rhetoric, but when presented with eastern rhetoric, the managers found the information both comprehensible and applicable. The rhetorical devices were not received as effectively as the different rhetorical styles.

In preparing for the training, the rhetorical devices were paired with an example from Prime Minister Hun Sen, or other government officials, because they provided an example assumed to be relatable to the Cambodian people. Once the project began to discuss the prime minister, however, the audience's engagement began to dwindle.

Following the training session participants at the KYA mentioned how the different rhetorical styles would be useful in grant writing and working with their clients in rural districts. Therefore, the training was still successful in providing the KYA with skills to improve their communication. The rhetorical devices may still be effective once the employees review the content and review the case studies provided at a later time. No questions were asked other than clarification.

Training at the TPO was presented to twenty employees. Initially, the participants struggled to distinguish this training from previous communication training sessions, but after articulating the definition of persuasion the audience began to engage and comprehend how the training would be useful when trying to convince clients to follow their therapy plans. Again, western rhetoric was difficult to understand until eastern rhetoric was presented. After being presented both styles, however, the employees mentioned how the different rhetorical styles were reflective of the different cultural identities of western and eastern cultures. Additionally, the TPO's employees understood the rhetorical devices in theory and were able to provide an example of how they could be applied to their work. To make the training more effective, examples of the rhetorical devices were created through examples that did not include Prime Minister Hun Sen.

A participant at the TPO training asked an interesting question regarding how to apply rhetoric to their daily lives. Several employees were asking for specific phrases to be used during their interactions with clients. I explained that rhetoric was not about specific phrases, but rather fundamental elements of persuasion. When understood, the principles of rhetoric could be persuasive, but rhetoric did not contain phrases that would always be persuasive to every audience.

At Meanchey University, the training was presented three times to three different audiences; a combination of both professors and students. All three trainings were well received. The students and faculty demonstrated both a comprehension and application across multiple disciplines, including: information technology, Khmer literature, English, finance, business, and agriculture. The students were able to provide discipline-specific examples of how the training would be useful. Examples included, but were not limited to: working with rural farmers to adopt new techniques, starting a business, job interviewing, and starting a new job with different personalities. These examples demonstrated the effectiveness of the presentation. Additionally, the students were interested in specific business models and how rhetoric could improve them; I provided Coca-Cola's share a Coke campaign as an example.

In conclusion, the training was successful at all three sites and all five presentations. The Cambodian participants demonstrated an eagerness to learn more about communication skills and a lack of training in rhetoric. The director of the TPO said his organization has received lots of communication training, but he has never heard of rhetoric before. His comment demonstrated how "Understanding Rhetoric: How Cambodian Organizations Can Improve Their Organizational Communication" was unique and provided a benefit to the Cambodian people. In congruence with the mission of the McMaster School for Advancing Humanity, it is my desire that this training will be spread to other organizations who were not able to attend the presentation. The KYA and the TPO both mentioned they would spread the information, suggesting the long term impact will exceed the benefits obtained through this initial presentation. For future projects, presenting on the rhetoric of images or videos would provide organizations with different communication tools that do not require verbal or written communication.

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DRUG RESISTANT TUBERCULOSIS IN RURAL CAMBODIA

Cheryl-Ann Francis, McMaster Scholar, Cambodia 2014 – 2015

The purpose of this project was to educate Cambodian physicians, nurses, and medical technicians about current findings from other countries regarding the diagnoses and treatment of tuberculosis (“TB”). In Cambodia many TB cases go undetected or untreated, and insufficient information is being distributed to the citizens, especially those living in rural areas. This project aims to address the causes, signs, symptoms, and treatment of TB so that the general population will have a better understanding of this deadly disease. The project will also inform community personnel—such as nuns, monks and other organizations—about TB since they are the first points of contact with the villagers. Additionally, in the project I trained and updated medical professionals about developments in the field of drug resistant TB. Trainings included the definition of drug resistance, the causes of drug resistance, and the ways to prevent the bacterium that cause TB from becoming drug resistant. I believe my project is of great importance, and will provide citizens with the information that they need about this infectious disease. Hopefully, this project will aid in decreasing the incidence rate of TB.



TB is a disease caused by the bacterium, *Mycobacterium Tuberculosis*. The TB bacterium is circulated into the air when a person with TB coughs, sneezes, speaks, or even sings. The disease is spread through the air, and often among those with close, frequent, or prolonged contact with an infected person. (U.S. Department of Health & Human Services, 2016). Accordingly, in a population where TB is prevalent it is difficult to eliminate the disease because of the minimal personal contact that is required to transfer the disease from one who is infected with the TB bacterium. Even though the occurrence of TB cases has declined in Cambodia, the disease still maintains a high incidence rate in the country. Indeed, the prevalence of TB in Cambodia is evinced by the fact that Cambodia is ranked second in the world with the disease, and two-thirds of all Cambodians carry the TB bacterium (Kunthear, 2012). Another problem is detecting asymptomatic TB, which results in only symptomatic TB patients receiving treatment. Thirteen thousand Cambodians die every year from Tuberculosis (Tuberculosis rates steady but challenges remain, 2008).

The failure to diagnose TB cases in Cambodia further permits the spread of the drug resistant strain of tuberculosis. Moreover, the laboratory facilities in Cambodia lack resources and equipment to adequately offer care to the victims who are diagnosed with TB. Currently, TB is detected by using skin tests, chest x-rays, and sputum smear procedures. Tuberculosis can become resistant to two or more powerful anti-TB drugs that are used to treat the disease. Resistance develops due to naturally occurring chromosomal mutations, and natural selection of resistant mycobacterium tuberculosis (“Mtb”) due to a lack of adherence to a treatment protocol (Da Silva & Palomino, 2011, pp. 1417-1418).

Insufficient dosage of prescribed medication further increases the survival of the drug resistant strains. Mtb becomes resistant through a process known as acquired resistance. Acquired resistance can occur in two ways: mutation of a gene that helps the bacteria survive, or receiving DNA from a nearby bacterium that is already resistant. A change in the DNA causes a change in the protein and this prevents the antibiotic from recognizing where it needs to perform its job. These genetic changes can prevent the antibiotic from penetrating the cell, or simply from carrying out its purpose when it is inside. Then the resistance can be spread through a population by reproduction or DNA transfer. Resistance is treated using broad-spectrum of antibiotics. Antibiotics are very useful in treating bacterial infections—such as TB—if used responsibly.

The factors that contribute the Mtb bacterium becoming drug resistant include being infected after being treated for TB disease in the past, failure to complete a full course of treatment, poor quality drugs (substandard and counterfeits), insufficient supplies of drugs, negligent prescriptions, taking medications for the wrong length of time, and a patient’s failure to adhere to a treatment plan by not taking medication regularly or overusing antibiotics.

This project continues the TB training initiative established by a former McMaster Scholar Nigel Hogan in 2009. In this project, I worked with McMaster Fellows, medical professionals, and returning scholars to develop a training manual on TB. Thereafter, I conducted training and shared my research about drug resistant TB with three doctors and ten nurses at the Bun Rany Hun Sen Rokakong Referral Hospital. Further, I presented my presentation about tuberculosis its definition, causes, mode of transmission, prevention of transmission and contraction, diagnosis and treatment, in the form of a PowerPoint at the Khmer Youth Organization, the Ou Dong Monastery, the Pursat Monastery, and at the Mean Chey University.

My presentation was received well at the various locations where I presented. This project served as a foundation so that we may better disseminate information about the effect of TB in Cambodia. Trainings emphasized that TB is airborne and is spread by coughing, sneezing, spitting, laughing or singing; but cannot spread by means of a hand shake, touching bed linens, toilet seats, sharing toothbrushes, or kissing. Moreover, I emphasized that if all the TB bacteria are not killed, they can become resistant to the medication and the person may become ill again. Should the TB bacteria become resistant to medication, it will be harder and more expensive to treat the disease the second time around because the same medication will be ineffective and new medication will have to be used in greater proportions resulting in more side effects of the medications.

The trainings were successful, and I was able to educate the population about TB, its signs, symptoms, causes, and mode of transmission and possible treatments. I also gave a thorough analysis of an infected TB lung versus a healthy lung. Ultimately, I hope the information learned from the project will better enable our community partners to prevent and treat TB cases. Though this project, Cambodians will be better able to adjust cultural practices that may lead to the recurrence of the infection. Moreover, the information shared will enable community partners to detect TB earlier and thus better treat this potentially deadly disease.

Though this project community partners and I were able to share and discuss current research on the subject of TB and drug resistant strands of TB. This project served as an important step toward our ongoing goal to provide medical professionals the tools to better treat TB, and combat the problems associated with health centers that are ill-equipped to handle this disease, especially in rural areas. In the future, workshops and training may be necessary to ensure that our community partners continue to have the most current information about the disease.

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UNDERSTANDING AND USING GOOGLE DRIVE TO INCREASE PRODUCTIVITY

Nathan Height, McMaster Scholar, Cambodia 2014 – 2015

This project provided technology training to under-trained professionals within the Kingdom of Cambodia. These training sessions introduced Cambodia professionals to cloud services, and provided specific training in the use of Google Drive to increase collaboration and productivity for educators, non-governmental organizations (“NGOs”), and businesses. Participants learned how to use Google Drive to create and share documents in real time. In addition, training sessions included an interactive component that allowed participants to upload documents relevant to their NGO or business for increased levels of collaboration and sharing within their organization.

Between 2000 and 2009 internet use throughout the nation “grew 1,200 percent, and cell phone usage grew 49 percent” (Richardson, 2011, p. 9). Richardson later acknowledges that although access to technological resources is increasing, there remains a significant need to improve the familiarity with technology in increased efficiency. Because of the language barrier that exists in these telecommunication tools, “adopters” of technology often have difficulty navigating through the help sections of programs like Excel and Google Drive (Richardson, 2011, p. 20). Indeed, as people begin to adopt these forms of infrastructure, there is a minor barrier present throughout the education system. Because the educators have little experience themselves with modern technology, it is more common for traditional teachers to abandon technological education in favor of more traditional methods. This phenomenon inhibits future generations from becoming technologically literate (Tan, 2008, pp. 565-566).



In furtherance of the objectives of this project, I developed a training program titled “Understanding and Using Google Drive to Increase Productivity.” Thereafter, I presented the training to a series of different organizations, including: the Cambodian Organization for Children and Development in Phnom Penh, Cambodia; the Khmer Youth Association in Phnom Penh; the Transcultural and Psychosocial Organization, and; Mean Chey University located in Banteay Meanchey Province. All trainings took place in a classroom setting.

The training sessions covered the Google Drive processes of creating, sharing, and editing online documents. In addition, the participants practiced tasks such as commenting and suggesting on documents on a community shared document. Trainings also included an individualized discussion on the benefits of using cloud services for efficiency, collaboration, and security within each respective organization. Following the training completed, I distributed a Google Drive help manual, in Khmer, to every participant.

Professionals who received the training observed how the technological resources discussed therein could increase their efficiency, and they showed an interest in using Google Drive in their respective organizations. The participants demonstrated an ability and motivation to capitalize on services to advance their business or organization. The objective of this project was to increase the familiarity with technological resources among individuals in Cambodia. As indicated in my review of relevant literature, I observed a generational gap in the participants’ understandings of said resources. By engaging in an interactive demonstration of cloud based services in conjunction with the physical resource that can be referenced in the future, this project was successfully able to not only close the generational gap in terms of familiarity with technology, but to increase the technological competencies of our community partners as a whole.

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FIRST AID AND CPR

Damian Koester, McMaster Scholar, Cambodia 2014 – 2015

The purpose of the project was to teach professionals, faculty, students, Buddhist nuns, and others Cardiopulmonary Resuscitation (“CPR”), and basic forms of first-aid focusing on splints and burns.

As one who is certified to administer CPR by the American Red Cross (“ARC”), I relied heavily on the ARC in preparing my presentation. I also used mannequins in my presentation to demonstrate how to administer CPR. All of the training videos that I viewed while developing the best practices in providing CPR training were from the ARC. In my research of burn prevention and burn treatment, I learned the most prevalent types of burns in Cambodia, namely, flame, scalds, chemical, and electrical burns. Additionally, I also learned the most affected areas of the body from burns. I placed a table of the study in my training manual so all of the trainees could see the same information I presented with at the beginning of my research (Borghese, Latorre, Montagnese, & De Stefano, 2005).

At the outset of my training demonstrations I explained that hands-only CPR is a potentially life-saving procedure that involves compressions to the chest to resuscitate the heart and lungs when they are no longer functioning on their own. I began by explaining how compressions allowed the heart to pump blood and the lungs to provide oxygen for the body. After the participants understood the purpose of this procedure, I described the correct time to perform CPR. CPR is conducted when an individual has fallen unconscious due to a health or medical issue, such as a stroke or heart attack. An individual would know when to perform CPR by checking the pulse of the victim and observing if the chest is rising. It is important that CPR is performed immediately after a stroke or heart attack has occurred because this is when the procedure is most effective. If the procedure is not performed immediately after the individual has fallen unconscious then it may be too late for CPR to potentially save that person’s life.

After articulating when it is appropriate to perform CPR, I would then demonstrate the proper way to execute CPR on a mannequin. There are four key points to CPR that I would emphasize throughout my demonstrations. First, the individual in distress must be on their back. Second, the person performing CPR must be on their knees in the center of the chest with the person in distress perpendicular to their body. Third, the person performing CPR must use their dominant hand and put it at the center of the chest with the opposite hand interlocking the fingers of the dominant hand. Finally, the person performing CPR must provide continuous compressions to the chest about two inches deep at a rate of about 100 compressions per minute. I would then ask for volunteers to practice on the mannequin and work on performing the correct technique so they can effectively perform CPR on their own.

Following a CPR demonstration, I would focus on applying splints. Splints are a type of first aid whereby the purpose is to immobilize a body part that has been broken or injured. Splints are important because while attempting to transfer an injured person, improper support of the injured body part can lead to worsening the injury and increased pain. I demonstrated how to apply splints for the leg, forearm, elbow, fingers, wrist, ribs, and ankle. All of my splints were simple, but highly effective. All of the splints were completed with only kramas (Cambodian scarves) and sticks, these being items that every family would have in their own household.



After splints, I would finish my presentation by describing first, second, and third degree burns. I would do this by explaining the visual cues associated with each of the severities. This would permit the participants to accurately diagnose the severity of their own burn or that of another individual. Once completed I would begin to explain the first-aid treatments of the three types of burns. This involved submerging the burned area in water, covering the burn, and to seek medical attention if at a third degree severity. To finish, we would address the concept of stop, drop, and roll and then explain why it was more effective than applying water.

I presented my project nine times to approximately 150 individuals. The CPR training appeared to be well received because. It was rewarding to work with participants in CPR training because the participants consistently provided positive feedback when they correctly performed CPR

on the mannequin. The participants were also interested to learn how efficient a splint could be that was made from only kramas and sticks. Throughout the demonstration I received many questions about excessive bleeding and the possibility of an exposed bone, which I responded to appropriately. Finally, for the burns portion of my presentation I received several scenarios for what certain burns were in relevance to where they occurred from. I also received questions on burns in certain locations of the body and if they were more severe than others. I addressed these questions by explaining how to identify the visual cues and address the severity and then proceed from there with the first-aid procedures.

My goal with the McMaster School for Advancing Humanity was to share the knowledge I acquired from my research with professionals, students and citizens that want to learn more about serious medical issues that could potentially affect them in Cambodia. I believe that this project was best received at the monasteries and at the Mean Shey University. Both the students and nuns were engaged thoroughly throughout my presentation. This engagement shows that they were interested in the subject matter of my project, which was encouraging to me. I am confident that this project positively contributed to the Mission of the McMaster School, and it is my desire that not only are the community partners that participated in this training better prepared to encounter the scenarios therein, but those participants will share and prepare others throughout the communities we work with.

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WATER SAFETY AND TESTING

Cormack Lazarus, McMaster Scholar, Cambodia 2014 – 2015

Ceresa Page, McMaster Scholar, Cambodia 2014 – 2015

The purpose of this project was to continue to collect information regarding the safety of drinking water in the rural areas of Cambodia by testing the water for specific impurities, including: arsenic, ammonia, nitrates, and other bacterial contaminants. In addition to testing the water, we also continued a water filter project that began in May of 2014. We accomplished this by maintaining the filters that were installed during that year, and providing two new water filters for two non-governmental organizations ("NGOs") in Cambodia. Further, we also provided training on the importance of using clean water for drinking, bathing, washing, and cooking.



The time from 1975 to 1979 will always be remembered as a dark period in Cambodia's past. During those four years, a communist group identified as the Khmer Rouge seized control of the country. The Khmer Rouge aimed to return Cambodia to the state that existed at the beginning of ancient Khmer rule—or "Year Zero"—by removing all forms of western influence. In order to accomplish this, the Khmer Rouge undertook a ruthless extremist campaign to eradicate individuals who were perceived as threats to their objectives. Doctors, nurses, teachers, scientists, other educated or intellectual individuals, and even people who wore glasses were either exterminated by the Khmer Rouge or fled the country in order to escape extermination.

This blemish in Cambodia's past has significantly hindered its development as a nation, and is the underlying cause of many of the country's problems today; including the lack of proper means to purify drinking water. Fifty-four percent of the drinking water for Cambodians in the rural areas comes from rain water, and 38% from the raw surface water (Shaheed, et al., 2014, p. 188). In Cambodia, efforts to ensure that water from these sources is suitable for consumption are generally insufficient. The failure to ensure that water is suitable for consumption can lead to diseases and bacterial infections.

Before returning to Cambodia in May of 2015, we continued to research the current state of water purity in rural Cambodia as well as the water-borne diseases that are prevalent there. If any new impurity was discovered, we added it to the battery of tests we would undertake while in Cambodia. Furthermore, we updated the presentation materials utilized by previous McMaster Scholars to educate our community partners regarding the importance of safe water. The educational materials were then translated to the Khmer language. Finally, we endeavored to keep current with any new developments or improvements in water filtration by means of a review of professional literature.

In Cambodia we continued the ongoing water testing project and also the water filtration project that began the previous year. Moreover, we were successful in testing water in a well at a new site in Pursat Province. In total, we tested ten sites using both separate and simultaneous tests to assess the levels of ammonia, nitrates, phosphorus, arsenic, bacterial contaminants, chlorine, pH, and hardness of the water. Additionally, we purchased two ceramic water filters from Resource Development International – Cambodia ("RDIC"), and distributed them to the nuns of Oudong Monastery, and the nuns of the Pursat Monastery. Also, we presented our training on water testing and water purity a total of seven times to approximately 270 participants.

A majority of the samples we collected tested positive for biological contaminants, and at least one site had high levels of nitrates and arsenic. After compiling our data, we distributed our findings to partners in the local community. A major component of our project was to undertake an educational campaign to emphasize the importance of clean water. In our presentations, we used glitter to illustrate how bacteria are transferred from contaminated sources to an uncontaminated source. This illustration helped our audience better understand how bacteria are spread and also how using contaminated water can make them sick. Furthermore, we also taught our community partners how to safely and successfully utilize bleach to purify their water. Finally, we trained community partners to use the two new ceramic water filtration units to purify their water. One significant challenge is that no matter how safe the water is found in its source, the methods of water storage available in Cambodia will tend to facilitate the reintroduction of contaminants into the water.

We were encouraged by an increased commitment by our community partners in ensuring the availability of safe water, particularly in the rural areas. Indeed, a representative of the Cambodian government at the Pursat Monastery during her welcome speech articulated that after the Khmer Rouge regime Cambodians were just concerned with getting the basic needs of life, but today Cambodians are concerned about the quality of those needs. Through this project, we were able to successfully provide our community partners with the means to improve the quality of their resources in furtherance of the objective of the McMaster School to improve the human condition.

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UNDERSTANDING MENTAL ILLNESS AND POSTPARTUM DEPRESSION

Elizabeth Pienoski, McMaster Scholar, Cambodia 2014 – 2015

The purpose of this project was to provide information to and training for social service professionals in Cambodia. The training was focused on providing information to promote a basic understanding of postpartum depression for professionals working with women and families.

In preparation for the trip to Cambodia, I studied literature about the culture and the state of the country. I sought to determine the extent to which the issue of postpartum depression had been addressed in Cambodia. Moreover, I largely relied on the American Psychological Association to better understand mental illness and to define characteristics, diagnostic techniques, and treatment options for the specific mental illness of postpartum depression.



Upon compiling my research, I created a training manual that was translated into Khmer and I presented it to community partners and non-governmental organizations (“NGOs”) at various training sessions. Trainings covered general treatment options so that participants could better understand the importance of a prompt and proper diagnosis. After the first training session, it became apparent that participants had a general understanding of what mental illness is—including postpartum depression—and what it means to have a mental illness. Accordingly, I adapted the training by including more general definitions and explanations of postpartum depression in order to provide a fuller understanding of the material.

Upon the conclusion of the training I left approximately twenty copies of the manual for the participants. The presentation of this training was received well at each location. Although there was skepticism in the beginning of each presentation,

after presenting the definitions and an explanation of postpartum depression—as well as providing examples of the causes and symptoms of postpartum depression—the skepticism waned and the participants became more engaged in the material. I received many questions which convinced me that the trainings had successfully communicated the information they were intended to convey.

Through my pre-trip training, and immersion into Cambodian culture, I was better able to connect with the culture of Cambodians and adapt the presentation to better relate to them. Additionally, by training community partners on mental illness and postpartum depression, I was able to better recognize the cultural differences between the United States and Cambodia. Critically, the information provided by the participants verified that the information I reviewed in professional literature, namely, that a culture of mystical beliefs, ghosts, and ritual provided the framework for participant understanding of postpartum depression.

McMASTER SCHOLAR LED TRAINING SESSIONS IN CAMBODIA: MEASURING THE IMPACT

Fred W. Coulter, McMaster Fellow, Cambodia 2015 – 2016

Introduction

The purpose of the proposed research project was to continue to measure the impact of training projects for professionals and students in Cambodia. This project is a continuation of a project begun the previous academic years in 2013 - 2014 and 2014 - 2015. In the previous research project, teachers responded to prompts about what they learned from the training sessions and how they would use this knowledge in their classrooms. The following year, the administrators and staff at Non-Governmental Organizations (NGOs) responded to the same prompts about what they learned and how they would apply that knowledge to their professional practices. The participants in this past year's research project were professionals, which in this article refers to administrators and staff employed by a NGO. Students were those enrolled in a course at a university in Cambodia. It is important to continue this line of research for three reasons. First, to establish a database of what presentations were made and what participants learned. Second, to ensure that the McMaster Scholars' training sessions were planned, developed, and effectively implemented. Third, the data will provide results that could indicate areas for improvement.

The need for ongoing professional development is important in all professions (Bengtsson & Carlson, 2015). In Cambodia, professionals may already be under trained, meaning their initial education in their respective fields may be lacking in some areas and so the need to train while on their jobs is important (Berkvens, Kalyanpur, Kuiper, & Van den Akker, 2012). The professionals can have years of experience in their positions, so they come to the training sessions with experiential knowledge, so one of the objectives of the sessions is to help professionals apply what they have learned to their professional practices (Koto-Shimada, Yanagisawa, Boonyanurak, & Fujita, 2016). This application of knowledge process affirms what they already know, supplements the participants with additional knowledge, and helps them to see how what they know and what they learned can be applied to their professional positions.

Scholar projects for the 2015-2016 Cambodian Learning Community included in-depth and detailed training sessions on the topics of organizational leadership, intercultural competence, sexual harassment and rape prevention education, hygienic water handling techniques, Cardio Pulmonary Resuscitation, the Heimlich maneuver, the Association of Southeast Asian Nations (ASEAN) agreement and economic theory. The previous year's research project asked teachers to respond to prompts on the content and application of the training sessions (Coulter, in press). The same basic protocol was to be followed in the present research project.

The reason that professionals are under trained in Cambodia is that during the rule of the Khmer Rouge from 1975 - 1979, an estimated 1.7 million were killed in a genocide in an attempt to rid Cambodia of perceived corrupting outside influences and return the country to an earlier prosperous time. In his article, Sokhom (2004) wrote that "the Khmer Rouge not only ended virtually all forms of formal education, it also actively sought out and killed the educated population" (p. 141). In the ensuing years after the ouster of the Khmer Rouge by the Vietnamese, the interim government supported by the United Nations and the subsequent governance by Hun Sen as an elected prime minister, the ranks of educated professionals has struggled to reestablish itself. One of the restraints on the emergence of well-equipped professionals was the lack of educational and training materials (Duggan, 1996).

Review of the Literature

According to Berkvens, Kalyanpur, Kuiper, and Van den Akker, J. (2012) the type, duration, and quality of professional development activities conducted in Cambodia varies. Many international and local NGO's provide long- and short-term training, workshops, seminars and conferences for professionals in Cambodia (Transcultural Psychosocial Organization, 2016). This can include multi-day sessions that take place over the course of weeks or months to one session in one day. This leads to varied effectiveness for the participants to learn and apply their knowledge to their professional practices. This need for training sessions on topics relevant to professionals was identified by McMaster Fellows after interviewing NGO administrators and communicating with McMaster School-Cambodian community partners Sophie Stagg Sun SoVichea. This research project proposes to implement an evaluation process that will measure the impact of the requested training sessions on professional's knowledge and practice.



Methodology

Participants

The participants in the research project were selected using the convenience sample method. Administrators, staff, and students from Khmer Youth Association, (KYA), and Transcultural Psychosocial Organization (TPO), and students in a class at Asia Euro University completed the prompts. A total of 56 responses were collected. Credit must be given to the participants in that 32 of them wrote their answers in English. All of the training sessions took place in Phnom Penh.

Instruments

Two prompts were developed for the professionals to respond to based on Bloom's Taxonomy (Bloom, 1956). The prompts were based on those used in a previous article (Coulter, 2014). The first prompt was, *In your own words, what have you learned from today's training sessions?* The second prompt was, *How would you apply what you have learned today to your professional practice?*

Procedures

The participants were given instructions in their own language, Khmer, that their participation was voluntary and that they should not make any identifying marks on the plain paper that was given to them to keep their responses as confidential as possible. The participants were given plain pieces of white paper and given the prompts verbally by the Cambodian translator. They were given as much time as needed to complete writing to the prompts. When completed, they placed their papers folded in half in a large manila envelope.

Data Analysis

The professionals' responses were assessed using the Kirkpatrick's *Four-Level Evaluation Training Model* (Kirkpatrick & Kirkpatrick, 2006). The assessment procedures used were developed in a previous article (Coulter, 2014). Kirkpatrick and Kirkpatrick's (2006) model consists of four levels, (1) reaction, (2) learning, (3) behavior, and (4) results. The guiding questions for the analysis will be for Level 2 - evaluate if the professionals' knowledge about the topics increased as a result of the training. For Level 3 - evaluate how the professionals stated they would apply the knowledge they have acquired to their teaching practice.

Results

Overall, the results of the training sessions were positive in that the professionals reported they had learned from the sessions and were able to apply what they learned to their practices. The following are examples of their responses from selected training sessions where data was able to be collected. (Please note that the participants' responses are verbatim from them or the translator)

Level 2: What did the professionals learn from the training sessions?

Intercultural Communication:

Throughout this workshop I have learned how communication is so important to my personal communication. The three types of communication, I noted that very clear of verbal, nonverbal, and written. I will bring it to apply to my career.

Leadership: How to Conduct a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis:

Today, I got new knowledge about Leadership Organization. I interested about SWOT it's really good knowledge.

Sexual Harassment and Rape Prevention Education:

I am interested on sexual harassment because I can analysis what kind of sexual harassment occurs.

Level 3: How would you apply what you learned to your professional practice?

ASEAN agreement and economic theory:

I can share to other young people in the community because it is very new and important for them to know and understand.

Leadership: How to Conduct a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis:

I will use this knowledge to practice by myself in my office and start thinking about the four main points (strengths, weaknesses, opportunities, and threats)

Intercultural Communication:

Intercultural communication because we have to communicate with the other and even the people we don't know. We have to communicate in the workplace and in everyday life.

Sexual Harassment and Rape Prevention Education:

After this training, I will share it to KYA youths and students when I organized training and other events.

Discussion

By assessing the teachers' examples using Kirkpatrick and Kirkpatrick's (2006) two levels, the responses clearly show that participants learned the information presented and were able to apply that knowledge to their professional practices. The professionals and students' ability to learn the material was certainly enhanced by the presentation method. All the participants were given a printed copy of the presentation in Khmer and the presentation was translated from English to Khmer by a Cambodian translator. In addition, at the end of each presentation, participants were encouraged to ask questions to elaborate on what they had read and heard. Many of the participants took advantage of that opportunity and fielded thoughtful questions for the presenters to answer.

Recommendations for future research would be to continue the evaluation of the training sessions to and ask an addition question. This question would be to identify topic of interest for future training sessions. This would keep the selection of topics to ones requested by community partners. In additions, this would help recruit and select future McMaster scholars based on the responses. Once a topic is chosen, the process of preparing McMaster Scholars to give their presentations would stay the same. Scholars would participate in the yearlong Cambodian Learning Community, during which time they

would thoroughly research their topic, write a complete presentation in English, and work with the McMaster Fellows to revise and edit the presentation. Then once in Cambodia, work with the Fellows to incorporate feedback to tailor each presentation to the participants (teachers, faculty, administrators, or caseworkers), their particular site (such as urban or rural), and the amount of time allocated for the presentation (this can range from 45 minutes to 2 hours). In order for the Scholars to make such adjustments, they have learned their topic at a very deep level. Not only do the participants benefit from the Scholars' presentations in learning about new topics and how to apply them to their practices, but the students learn by having to internalize the knowledge so that they can teach it to others (Lasater, Upvall, Nielson, Prak, & Ptachcinske, 2012)

Two quotes from participants sum up the whole experience for all of us,

"I thank you so much for sharing this knowledge with us at the university" and "I'll put it into practice and follow it to improve my lifeskills."

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INTERCULTURAL COMMUNICATION

Jordan Blank, McMaster Scholar, Cambodia 2015 – 2016

The focus of this project lies in communication itself. According to the literature, communication is not so much a *what*, but *how*. Indeed, “communication is not as simple as talking, public speaking, writing, signing, emailing, or texting, though it can include all of these” (Warren & Fassett, 2014, p. 7). Furthermore “communication is the collaborative construction and negotiation of meaning between the self and others as it occurs within cultural contexts” (Warren & Fassett, 2014, p. 7). As such, in cross-cultural communication, it is necessary not only to negotiate meaning within one cultural context, but in and across numerous cultural contexts. Moreover, culture can be thought of as a system of meanings and assumptions that draws people together within the social context of shared power.

In order to successfully understand cross-cultural communication, one must first understand the social rules and norms of the culture they wish to interact and communicate with. Communication and culture are inseparable, and each culture has their own way of communicating (Gudykunst, 2003, p. vii). In order to bridge the gap between the ways individuals of certain cultures communicate, one must first find the similarities in the methods of communication, and use those similarities to form a basis through which more extensive communication can begin. This basis is formed from a knowledgeable understanding of both cultures and their communication methods.

Cambodia is home not only to the Khmer people, but to Cham Muslims as well. The Khmer people also interact with immigrant people such as Vietnamese, Chinese, Koreans, and Syrians (Central Intelligence Agency, 2016). In addition, there are other ethnic and cultural groups living in the remote rural areas of the country. Also, Cambodians will come into contact with more people outside their culture as the agreement among ten Southeast Asian nations (“ASEAN”) continues to be implemented. As Cambodia continues to develop as a country and become more integrated into the global community, communication skills will be imperative in order to be productive members of a cross-cultural society.

In furtherance of this project, I endeavored to provide three training sessions to approximately one hundred individuals at the Asia Euro University in Phnom Penh, Pursat, and the Meanchey University in Sisophon. The total number of participants, at all three sites, was approximately one hundred.

Throughout our discussion, our community partners shared with us that they often interact with tribes on the northern and eastern Cambodian border who are extremely diverse from the Khmer people. Indeed, the diversity of the area extends beyond the Chinese and Chams, but also includes Vietnamese, Thai, Laos, Indians, and a growing number of Australians and Americans. My discussions were limited to the more theoretical components of cross-cultural communication. This presentation was received well among our community partners, however, the participants also desired a more specific and practical assessment of how to successfully interact with the cultures with whom they communicate regularly. Accordingly, future McMaster scholars should endeavor to continue the theoretical component of this presentation, but also, be sure to include research concerning the many different cultural groups in this area.



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LEADERSHIP TOOLS FOR USE IN ORGANIZATIONS

Nathan Height, McMaster Scholar, Cambodia 2015 – 2016

This McMaster School for Advancing Humanity project in Cambodia provided training to professionals in non-governmental organizations ("NGOs"), faculty at a university, Buddhist nuns who work in their communities, as well as high school and college level students. This training introduced Cambodians to current leadership tools and provided specific training in the use of a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) (Aziz, Ahmed, & Amin, 2010) and SMART goals (Specific, Measureable, Attainable, Relevant, and Time-Bound) (MacLeod, 2012) to increase collaboration and understanding within their educational settings, NGOs, businesses, communities, and personal lives. Participants learned how to use a SWOT analysis to identify what their organization does well and what they can improve upon. In addition, participants identified avenues for further growth and possible deterrents in regards to their organization. After creation of the SWOT analysis, participants then learned how to apply the SMART model of developing goals for their organizations and in their own lives.



Cambodia is a nation that is developing an economic and organizational infrastructure. Most business and government leaders execute basic leadership techniques, but the nation's professionals do not have the resources or training available to further their comprehension of organizational leadership (Selvarajah, Meyer, & Davuth, 2012, p. 666). By receiving intensive instruction on how to use leadership techniques to their fullest capabilities, individuals would then be able to capitalize on their training by implementing these leadership tools (Yukl & Mahsud, 2010).

"Leadership Tools for Use in Organizations" was presented seven times to five different organizations and to approximately 140 individuals. These training sessions covered topics such as the SMART goal model and the SWOT model. Further, trainings introduced the participants to a series of hypothetical situations so that they could demonstrate using these skills. Finally, I prepared a leadership manual and distributed it so these materials could be referenced in the future.

The concepts and benefits of using a SWOT analysis and the SMART goal model were well received by audience groups. The distribution of the Khmer leadership manual allowed for further application upon completion of the training. Professionals who received the training showed an interest in using SWOT, and SMART in their organizations, with an emphasis on training others within their NGO, business, or school. The leadership resource materials should serve as a reliable training tool for organizations, illustrating concepts and direct application. The individuals trained showed the ability and motivation to capitalize on tools to advance their business or organization.

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ECONOMICS AND THE ASEAN AGREEMENT

George Roth, McMaster Scholar, Cambodia 2015 – 2016

The reign of the Khmer Rouge in Cambodia was catastrophic not only to society as a whole, but to the economy as well (Hill & Menon, 2015, p. 4). Indeed, “one-quarter of the population perished . . . the [Khmer Rouge] also abolished most formal institution of the state, including private property and money” (Hill & Menon, Cambodia: Rapid Growth in an Open, Post-conflict Economy, 2014, p. 1650). More recently, economic development in Cambodia had increased since the mid-1990s, and it is taking steps to deliver itself from a dependency on foreign aid (Hill & Menon, Cambodia: Rapid Growth in an Open, Post-conflict Economy, 2014, p. 1651). Cambodia’s movement towards economic independence became the main focus for my project. Accordingly, in Cambodia I set out to teach economic theory to our community partners.

The ASEAN free trade area is an important accommodation that eliminated tariffs within ASEAN countries for the majority of products in 2015. Because the ASEAN agreement serves as an economic community, Cambodia will also have to observe the arrangements to reduce tariffs on several other countries outside of ASEAN. One of the major factors of a country’s success is the education of its people and their ability to use a proper education to increase their prosperity. Cambodia is still recovering from the Khmer Rouge’s reign, which resulted in a reduction of educated individuals in Cambodia (Hill & Menon, Cambodia: Rapid Growth in an Open, Post-conflict Economy, 2014, pp. 1665-1667). Even after the Khmer Rouge was no longer in power, the confidence in the successive government was not sufficient to encourage an “investment in education” in the 1980s (Hill & Menon, Cambodia: Rapid Growth in an Open, Post-conflict Economy, 2014, p. 1665). Unfortunately, even the educated in Cambodia are finding that the education provided to them is not satisfactory for the job market. Indeed, “of 78 employers, 73 [percent] reported that university graduates did not have the right skills” (Hill & Menon, Cambodia: Rapid Growth in an Open, Post-conflict Economy, 2014, p. 1666).



Compared to other nations in Southeast Asia, high facilitation costs and shipping delays further hinder the potential of Cambodia’s open economy. Addressing the problem of a low education level in Cambodia can result in a two-fold benefit. The first would be a general increase in knowledge that could be passed down from one generation to the next. The second benefit of providing economic education to the Cambodian businesses and the general public would be to instill confidence in their currency. Currently, the US dollar is widely accepted in Cambodia, despite the country having its own currency, the Riel. By having a population’s confidence in its own currency, the government is able to create monetary policies on its own, as opposed to relying on a foreign currency.

I presented my project eight times in Cambodia at a monastery, the Khmer Youth Association ("KYA"), the Transcultural Psychosocial Organization ("TPO"), and at Meanchey University. Overall, I presented to around two hundred people. I was successfully able to convey information about the ASEAN agreement. My goal was to have the participants understand market principles that govern the price of goods and services. Our discussions to the ASEAN agreement helped illustrate these economic principles; and helped demonstrate the concept of supply and demand, and elasticity of demand. Understanding the impact of the free flow of goods and services will be beneficial for the Cambodian professionals, students, and nuns; as it will enable our community partners to be productive participants in their local economies.

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WATER TESTING AND WATER HYGIENE

Arlen Stoller, McMaster Scholar, Cambodia 2015 – 2016



From April of 1975 to January of 1979, approximately two million Cambodians lost their lives during the reign of the Khmer Rouge (Tyner, Sirik, & Henkin, 2014, p. 277). Moreover, the Khmer Rouge converted many schools to prisons and warehouses (Tyner, Sirik, & Henkin, 2014, p. 277). The dismantling of the education system created many problems in Cambodia after the Khmer Rouge regime. One such problem is the lack of a sufficient infrastructure (roads; transportation; and utilities, including: electricity, water, and communication) throughout Cambodia. Indeed, much of the accessible water is contaminated with arsenic, manganese, fluoride, and nitrates (Bennett, Shantz, Shint, Sampson, & Meschket, 2010). With these contaminants in the water, many health issues occur as a result of drinking and bathing with this water. In addition, much of the water has bacteria present such as E. Coli (Bennett, Shantz, Shint, Sampson, & Meschket, 2010), which causes many health problems. Children

are affected more dramatically than adults by the poor water quality. Diarrhea is one side effect of the contaminants in the water (Bennett, Shantz, Shint, Sampson, & Meschket, 2010). This can and has become deadly for many children in Cambodia. In addition to children deaths and sicknesses caused by the water, there is a direct link of absence rates in Cambodian schools and the provision of safe water (Hunter, et al., 2014, p. 3). The study indicates that when there is a safe water source available, the absence rate in schools decrease compared to when there is no safe water available. The problems resulting from the contaminants in the water are preventable through testing, education, and filtering or boiling of the water.

The focus of this project was to assess the degree to which the water in Cambodia contains contaminants, and to use those results to help educate community partners about the contaminants. This initiative will enable our community partners to make adjustments regarding water usage and practices. In addition, we also aim to develop a long-term solution for removing or treating these contaminants in order to provide a safe water source for community partners is the focus for this project.

There were a total of 28 water sources tested throughout Cambodia. We tested the water for the following contaminants: arsenic, bacteria, chlorine, nitrates, phosphates, hardness, and ammonia. Thereafter, I gave four presentations on the subject of water hygiene to a total of 170 individuals. Moreover, I delivered testing equipment to the Meanchey University to allow for water testing to continue over the following months.

Based on the results of 26 water tests, there were very few sites that tested positive for chlorine, arsenic, or nitrates. The several sites that did contain chlorine, arsenic, and nitrates, the amounts were within the safe ranges. A majority of the sites tested had hard water. Further, the water contained high amounts of minerals at nearly all the sites. In addition, there were high amounts of phosphates present in many of the samples collected. In addition to the high amounts of phosphates present, at least half of the sites tested positive for bacteria in the water.

I presented several methods to our community partners to kill the bacteria in the water. The first method was to boil the water for a minimum of five minutes to ensure that all of the bacteria were killed. The second method that was introduced was by using bleach to kill the bacteria. The community partners were provided ratios of bleach to water in order to kill the bacteria present in the water. Thirdly, I demonstrated how the sun and plastic bottles could be used to kill bacteria.

The testing of water of the selected sites in Cambodia indicated that although chemical contamination is not a concern, bacterial contamination is. Through this project, I successfully conveyed to community partners how water can become contaminated with bacteria and the means by which to remedy this contamination. In future trips to Cambodia, McMaster scholars should continue to assess the water quality at these sites. Moreover, McMaster Scholars should continue to undertake educational initiatives to reinforce the importance of consuming bacteria-free water.

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