សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
ROYAL UNIVERSITY OF PHNOM PENH

សមត្ថភាពជំនាញការសិក្សាពេញមួយជីវិតរបស់បុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា និងប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌ "គ្រូជាអ្នកសិក្សាពេញមួយជីវិត"

Lifelong Learning Competence of Technical Engineering Teaching Staff and System Support for the Promotion of Teachers as Lifelong Learners Culture at Institute of Technology of Cambodia

A Thesis

Submitted in Partial Fulfilment of the Requirement for the Degree of

Master of Education in Lifelong Learning

HUOY BALIN

July 2017

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

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Examination committee: Dr. SOK SOTH

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អូលដ័យសង្ខេប

គោលបំណងនៃការសិក្សាស្រាវជ្រាវនេះគឺដើម្បីស្វែងយល់សមត្ថភាពជំនាញការសិក្សាពេញមួយជីវិតរបស់បុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា និងប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌ "គ្រូជាអ្នកសិក្សាពេញមួយជីវិត" ។ ការសិក្សាក៏ផ្តោតទៅលើការកំណត់រកភាពខុសគ្នានៃសមត្ថភាពនេះរវាងគ្រូបង្រៀនផងដែរ ដោយផ្អែកលើក្រុម ភេទ កំរិតវប្បធម៌ ដេប៉ាតឺម៉ង់ និង អាយុ។ ការសិក្សាធ្វើឡើងជាមួយបុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មចំនួន៨០រូបក្នុងចំណោម១៦២រូប មកពី៧ដេប៉ាតឺម៉ង់ ក្នុងឆ្នាំសិក្សា ២០១៦-២០១៧។ លទ្ធផលការស្រាវជ្រាវបានបង្ហាញឱ្យឃើញថាបុគ្គលិកបង្រៀន បច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជាមានសមត្ថភាពការសិក្សាពេញមួយជីវិតកំរិតខ្ពស់។ នៅក្នុងការប្រៀបធៀបសមត្ថភាពតាមក្រុម លទ្ធផលបានបង្ហាញថា គ្មានភាពខុសគ្នានៃសមត្ថភាពនេះនៅក្នុងក្រុម ភេទ ដេប៉ាតឺម៉ង់ និង អាយុ នោះទេ។ ភាពខុសគ្នានៃសមត្ថភាពត្រូវបានរកឃើញតែនៅក្នុងក្រុម កំរិតវប្បធម៌ប៉ុណ្ណោះ។ ការសិក្សាបានបង្ហាញថា លោកគ្រូអ្នកគ្រូដែលមានកំរិតវប្បធម៌កាន់តែខ្ពស់ មានសមត្ថភាពការសិក្សាពេញមួយជីវិតកាន់តែខ្ពស់ដែរ។ ដោយឡែក បើអង្កេតលើធាតុផ្សំនៃសមត្ថភាពការសិក្សាពេញមួយជីវិត លទ្ធផងបានបង្ហាញថាមានភាពខុសគ្នាលើធាតុផ្សំ៤ (១. សមត្ថភាពគ្រប់គ្រងរៀបចំខ្លួនឯង ២. សមត្ថភាពផ្លូចផ្តើមគំនិត និង ភាពជាសហគ្រិន ៣. សមត្ថភាពទទួលបានព័ត៌មាន និង ៤. សមត្ថភាព Digital) រវាងលោកគ្រូអ្នកគ្រូដែលមានកំរិតវប្បធម៌ ថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ ឬ បណ្ឌិត និង លោកគ្រូអ្នកគ្រូដែលមានកំរិតវប្បធម៌ថ្នាក់បរិញ្ញាបត្រ។ ជាងនេះទៅទៀត ទាក់ទងទៅនឹងក្រុមដេប៉ាតឺម៉ង់ និង អាយុ យើងបានសង្កេតឃើញថាមានភាពខុសគ្នាលេចឡើងក្នុងធាតុផ្សំចំនួន៣ គឺ ១. សមត្ថភាពនៃការរៀនពីរបៀបរៀន ២. សមត្ថភាពផ្លូចផ្តើមគំនិត និង ភាពជាសហគ្រិន ៣. សមត្ថភាពទទួលបានព័ត៌មាន។ ស្តីអំពីប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌ "គ្រូជាអ្នកសិក្សាពេញមួយជីវិត" លទ្ធផលបានបង្ហាញថាមានកំរិតខ្ពស់៕

ABSTRACT

The purpose of this study was to investigate the Lifelong Learning Competence (LLLC) of Technical Engineering Teaching Staff (TETS) of Institute of Technology of Cambodia (ITC) and system support of this institute in promoting lifelong learning culture for teachers. The study also aimed at finding out significant difference of LLLC between ITC TETS by gender, education qualification, department, and age group. The study was carried out with 80 out of 162 TETS from 7 different departments during 2016-2017 academic year. The study found that the teaching staff who participated in the research were highly competent in lifelong learning. It is also important to point out that there was no significant difference found in LLLC in general of 3 categories, gender, department, and age group. The difference of LLLC was found among the participants with different degrees; that is, the higher qualification a teacher possessed, the more competent in lifelong learning s/he was. However, when examined more detail of each component of LLLC, it revealed that there was significant difference of LLLC in regard of (1) Self-Management Competencies, (2) Competencies of Initiative and Entrepreneurship, (3) Competencies on Acquiring Information, and (4) Digital Competencies between Master, PhD holders and those with Bachelor Degree. Moreover, concerning department and age group, it also revealed significant difference of 3 sub-dimensions, "Competencies of Learning How to Learn", "Competencies of Initiative and Entrepreneurship", and "Competencies on Acquiring Information" between the groups within the 2 categories. As for the system support for the promotion of lifelong learning culture for teachers, it was found high at ITC.

SUPERVISOR'S RESEARCH SUPERVISION STATEMENT

TO WHOM IT MAY CONCERN

Name of program: Master of Education

Name of candidate: HUOY BALIN

Title of thesis: Lifelong Learning Competence of Technical Engineering Teaching Staff and System Support for the Promotion of Teachers as Lifelong Learners Culture at Institute of Technology of Cambodia

This is to certify that the research carried out for the above titled master's research report was completed by the above named candidate under my direct supervision. I played the following part in the preparation of this thesis: guidance in all stages from reviewing literature to writing research report, providing some reading sources, as well as steering thought contributing to the writing process.

Supervisor's Signature: …….

Date : …….

CANDIDATE'S STATEMENT

TO WHOM IT MAY CONCERN

This is to certify that the research report that I, Huoy Balin, hereby represent entitled Lifelong Learning Competence of Technical Engineering Teaching Staff and System Support for the Promotion of Teachers as Lifelong Learners Culture at Institute of Technology of Cambodia for the degree of Master of Education at the Royal University of Phnom Penh is entirely my own work and, furthermore, that it has not been used to fulfill the requirements of any other qualification in whole or in part, at this or any other university or equivalent institution.

Signed by Huoy Balin: …….

Date: …….

Countersigned by the Chief Supervisor: …….

Date: …….

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LIST OF ABBREVIATIONS

ACC	:	Accreditation Committee of Cambodia
ANOVA	:	Analysis of Variance
CAI	:	Competencies on acquiring information
CDM	:	Competencies of decision-making
CIC	:	Construction Industrial Council
CIE	:	Competencies of initiative and entrepreneurship
CLHL	:	Competencies of learning how to learn
CPD	:	Continuous Professional Development
DC	:	Digital competencies
EC	:	European Commission
GCA	:	Chemical Engineering and Food Technology
GCI	:	Civil Engineering
GEE	:	Electrical and Energy Engineering
GGG	:	Geo-resources and Geotechnical Engineering
GIC	:	Information and Communication Engineering
GIM	:	Industrial and Mechanical Engineering
GRU	:	Rural Engineering
HEIs	:	Higher Education Institutions
HEQCIP	:	Higher Education Quality and Capacity Improvement Project
ITC	:	Institute of Technology of Cambodia
LLL	:	Lifelong Learning

LLLC	:	Lifelong Learning Competence
LLLCS	:	Lifelong Learning Competence Scale
LSD	:	Least Significant Difference
MoEYS	:	Ministry of Education, Youth and Sport
RUA	:	Royal University of Agriculture
RUPP	:	Royal University of Phnom Penh
SMC	:	Self-management competencies
SPSS	:	Statistical Package for Social Sciences
S.D.	:	Standard Deviation
TETS	:	Technical Engineering Teaching Staff
T3L	:	Teachers as Lifelong Learners
UHS	:	University of Health Sciences

CHAPTER 1
INTRODUCTION

The concept of Lifelong Learning (LLL) has its "birth" in UNESCO conference dated back in 1970, which was introduced by Paul Lengrad. As early as 1969, the LLL programme was elaborated by Combs, the author of "The World Educational Crisis: A system analysis," as the answer to education crisis worldwide. Education system needed to be developed as social, political, economic, scientific, and technological environment progressed since the 20th century. Knowledge acquired in school or teaching and learning required a turning point to the right direction driven by LLL concept (Óhidy, 2008). Several developed countries have captured the concept of LLL many decades ago. Denmark, for example, placed LLL into its educational development agenda since 1971. Between the 1970s to the 1990s, LLL was less focused; until 1990s onward that LLL was considerably focused to response to a dramatically change of globalization and to the introduction of information technology according to Jarvis (2007) and Kang (2007).

In May 2015, UNESCO led the convening for World Education forum 2015, hosted by Republic of Korea, concerning Education 2030. Having seen challenges and deliberated proposed agenda for 2030 education, the Forum adopted declaration of a new version for education toward 2030 which focused on roles of education, expending access, inclusion and equity, gender equality, quality, and lifelong learning opportunity. It reaffirmed a new vision for education toward 2030 by revealing education as the key success to eradicate unemployment and poverty, and which will be focused within a Lifelong Learning approach, ([UNESCO], 2015).

LLL becomes even more crucial for every sector in the 21st century. Technological changes makes LLL inevitable in this modern world since "the stock of human knowledge now doubles every five years, and by 2020 it is expected to double every 73 days," (Holmes, 2002, p. 10). Holmes further added that our willingness and adaptability to learn continuously prepare us for the upcoming changes. In a study, Lifelong learning and learning to learn: an enabler of new voices for the new time, Lee (2014) concluded that the availability of LLL opportunity will be indispensable for preparing people of the new eras to meet the changing needs ahead them. Wagner stresses on the importance of learning continuously in the following way:

> Learning is not only *what* we do every day in our everyday lives, it is also *central* to what we do as productive human beings personally and at work. Improving learning, then, is among the most important activities in which people, policy makers and governments should invest (Wagner, 2015, p. 13).

Learning can take place in various contexts, and individuals are supposed to take responsibility of their own learning. LLL refers to learning that occurs outside education system (Jarvis, 2004). Although the term 'lifelong learning', which can be understood as a process in which the individual continues to engage in education and training throughout life, is conventional, it is not a straightforward concept (Fisher & Simmons, 2010).

1. CPD and LLL

The European Lifelong Learning Initiative, on the one hand, defines LLL as " ... a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, value, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment, in all roles circumstance, and environments" (Watson, 2003, p. 3). On the other hand, according to Friedman

(2013, p. 9), Continuous Professional Development (CPD) as defined by Construction Industrial Council (CIC) in 1986 refers to "the systematic maintenance, improvement and broadening of knowledge and skills, and the development of personal qualities necessary for the execution of professional and technical duties throughout the individual's working life." In other words, LLL is a broader term to define continuing development of skills and capacity to ensure quality of living in our entire lives in general, while CPD refers to the same process of renewing knowledge and skills during working lives in specific.

2. Role of Higher Education for LLL

LLL skill is crucial for any career in the present and even much more in the future because it delivers benefits widely to not only the individual and their profession but also to the public as a whole.

"Learning experiences and teaching practices at university influence further choices and support continuing lifelong learning of university students," (Jõgi, Karu & Krabi, 2015). They further valued teaching at university as a lifelong learning and development process. Knapper and Cropley (2000) also agreed that in higher education and universities, students are provided with "groundwork" for LLL. It is mainly a universities' job to uphold LLL (Duță & Rafailă, 2014). University might be seen as creators and designers of a LLL culture in society (Pollard, 2003), and students should leave higher education as lifelong learners, Hartley (2009) suggested. Moreover, higher education has a significant role to play in the LLL of teachers (Köksal & Çöğmen 2013). Eraut (1998) found much interest in Day's work, which reviewed many studies in several countries onto teachers' learning and Continuing Professional Development (CPD), in the preface of Day's book that in order to become lifetime learners, young people will need

guidance to be motivated toward continuous learning and be confident in their ability to set and achieve their learning goals.

Thus, to build up Lifelong Learning Competence (LLLC) in students, teachers themselves need to be ones – Lifelong Learners. Being lifelong learners, teachers will also ensue and develop their qualification continuously. Without LLL skills, teachers cannot contribute to producing healthy citizens for their country. In other words, with the absence of LLLC in teachers, it's hard to expect this quality equipped in their students.

3. Problem Statement

Turning to Cambodia situation regarding LLL for teachers, we see a lot of issues starting from lower, primary and secondary (K12), to higher education. At K12 level, this problem could be traced back to the pre-service teacher training, where teacher trainees receive only 16 hours of study on Pedagogical Research which is very critical ([MoEYS], 2011a & 2011b). It shows that research competence, one of the core elements in lifelong learning and specifically continuing professional development of those teachers must be limited due to being less exposed to the skill. Moreover, according to Dionys (2012) who did a study about introduction of ICT and multimedia into Cambodia's teacher trainer centers, the use of computers in classroom is very limited in Cambodia due to three major reasons, (1) low level of teacher trainers' digital literacy, (2) weak infrastructure, and (3) inadequate institutional capacity in ICT management.

Having seen challenges for the meantime and years ahead, Accreditation Committee of Cambodia (ACC) introduced most needed components of quality assurance into Higher Education Institutions (HEIs) through improving "human capacity". HEQCIP or Higher Education Quality and Capacity Improvement Project had been launched from 2011 to 2015. This USD-23-million worth project supported by World Bank in agreement

with the Ministry of Education, Youth and Sport (MoEYS) aimed at improving (1) the quality of teaching, management, and research in project-supported entities and (2) piloting the targeting of disadvantaged students for enhance access and retention ([MoEYS], 2015).

Although MoEYS and development partners have been trying to ensure quality of higher education, there are some more certain issues concerning teaching quality and teacher's professional development in HEIs in Cambodia. One of them is closely related to finance. HEI lecturers are paid based on their teaching hours (Meyn, 2009) so to earn better for their living, they try to teach more classes/ hours and even more places which result in being short of time for research and development for themselves.

Research done in 2010, to study on research capacities of Cambodia's HEIs, by a group of researchers found out that of all HEIs only a few – Royal University of Phnom Penh (RUPP), Institute of Technology of Cambodia (ITC), University of Health Science (UHS), and Royal University of Agriculture (RUA) – have increased research activities. "Research is still in a dark stage for Cambodian higher education," stated Chet (2009, p. 161). He added that there were two major issues leading to the lack of research capacities. One was related to Cambodian tradition which prevents younger people from questioning their senior. In all stages of research, inquiring is the key and Cambodian lacks this particular skill. Besides discouraged-questioning culture, the lack of stimulating reading was the other cause that leads to less capacity development. In addition to these, some of those teachers in higher education level has no pedagogical training before their service, so there is nothing to prove their profession in the career as teachers. Thus, it is doubtful whether professional development for those teachers will be on the right track.

The question for now is how we can build up LLL in students while teachers/ educators themselves have limited concept, competence, and or conduct of LLL. Keller (2002) stated that "it seems foolish to hope to stimulate LLL skills and attitudes in children without paying attention to develop those same skills and attitudes in the teachers of those children." According to Özcan (2011), "in the information society, teachers must have LLL skills as well as the responsibilities that they make their students gains those skills." The quality of education can be improved through developing teachers' profession and capabilities (Day, 1999).

Thus, having seen various problems of Cambodian teaching staff as mentioned above, the lack of studies on such issue in Cambodian context, and the very little information available about quality of faculty (Kitamura, Edwards Jr, Williams, & Chhinh, 2016), before further conducting research on students, firstly, researcher decided to propose a study on teachers regarding Teachers as Lifelong Learners (T3L) by looking at their Lifelong Learning Competence or LLLC (Uzunboylu & Hürsen, 2011) and the support from their institution to promote T3L culture.

4. Purpose of the Study

The purpose of this study was to find out current LLLC among Technical Engineering Teaching Staff (TETS) of Institute of Technology of Cambodia (ITC), the different competency level by their gender, educational qualification, department, and age group; and it also searched for ITC system support on T3L culture based on ITC teaching staff's perspective.

5. Research Questions

The following are research questions designed to realize the purposes of the study.

1. What is the level of Lifelong Learning Competence in general of technical engineering teaching staff at ITC?
2. What are the significant differences of Lifelong Learning Competencies among the staff by gender, qualification, department, and age group?
3. Based on teaching staff's perspectives, to what extent does ITC support T3L culture?

6. Significance

By looking at these aspects, teachers' LLLC and System Support, findings of this research could benefit various groups of people. First, they could be directly beneficial to individual teacher to rethink about building up or maintaining their qualification, and at least the findings could raise teachers' awareness of their own competence in respect to LLL.

More importantly, the results of this study may serve as evidence proofing teachers' quality in this particular institution to enable teacher educators and educational decision-maker to see challenges and what need to be done to reach desired educational quality through qualified and well equipped teachers, and to put a greater consideration specifically on CPD for teachers.

Moreover, in his research attempting to find out what research would be necessary over the coming decades, to realize the goal of improving learning and literacy in poor communities in low-income countries, Wagner (2014) stated that research offers new ways to innovation as well as reduces wasted investments in time and resources on methods which no longer work. Hence, the result from this study will surely be responsive to a better investment on improving teachers' quality within Cambodia HEIs.

CHAPTER 2
LITERATURE REVIEW

There are various definitions concerning LLL. EC (2001) has broadly used definition of LLL as all learning activities undertaken throughout life, with the aim of improving knowledge, skills and competence, within personal, civic, social or employment-related perspectives. It is also interpreted as lifewide, self-motivated, voluntary learning which can be described as professional development according to Coşkun and Demirel (2010). Wang (2008) saw LLL as continuous learning throughout life to meet the swiftly change of society.

1. Theoretical Background

Again, while LLL refers to continuing development of skills and capacity to maintain and improve quality of life in general, CPD is about the same process of renewing knowledge and skills during working life in specific. Professional capacity development for the teachers is academically seen as the driver for ensuring quality of learning and teaching and promoting students' performance in school. Day (1999) considered teachers as agents of change and are critically reflective agents in their ongoing professional development throughout their teaching career and this greatly contributes to motivate teaching and learning in the classroom. Lieberman (1995) viewed teachers, by the cause of traditional approach, think of themselves as targets of change rather than agents of change.

For the quality of education, it is necessary to ensure that teachers and educators are those who are "empowered, adequately recruited, well-trained, professionally

qualified, motivated and supported within well-resourced, efficient and effectively governed systems," ([UNESCO], 2015, p. 2). With insufficient acadamic training, teachers are considered to teach ineffectively, (Kitamura, Edwards Jr, Williams, & Chhinh, 2016).

In respect to difining lifelong learners, there are some studies conducted to list down lifelong learners' characteristics and competencies. Lifelong learners should have 5 characteristics according to Knapper and Cropley (2000); those include (a) goal setting, (b) application of knowledge and skill, (c) self-direction and evaluation, (d) location information, (e) adaptable learning strategies.

Uzunboylu and Hürsen (2011), whose works have been adapted in many studies, pointed out that lifelong learners should have certain competences which include (a) self-management competencies, (b) competencies of learning how to learn, (c) competencies of initiative and entrepreneurship, (d) competencies on acquiring information, (e) digital competencies, (f) competencies of decision-taking.

Designed by Keller (2002), LLL criteria for teacher as lifelong learners involved (a) personal learning plan, (b) authentic context, (c) reflective and collegial dialogue, (d), ongoing assessment, (e) system supports. He revealed two majors supports school can do to promote T3L which are to prioritize learning systematically and to address barriers including time and access to learning.

2. Previous Studies on LLL

There have been studies related to LLL in various contexts, namely a study conducted by Uzunboylu and Hürsen (2013) exploring teachers' attitudes and perceptions of competence regarding LLL. They found that age and gender seemed to influence

teachers' LLL process and that there was a positive correlation between their attitudes and the perception of competence. Similarly, Özcan (2011) who did a study "Evaluation of 4th and 5th classes teachers' competence perceptions toward lifelong learning" found that teachers' genders and education levels were the utmost significance in their LLL process. Özcan and Uzunboylu (2012) also conducted a study about "Perceptions of principals towards lifelong learning" which found that the principals' gender and seniorities influenced their competent perception toward lifelong learning. A study with 91 primary school teachers by Bozat P, Bozat N, and Hürsen (2014) claimed that younger teachers were more competent in LLL than older ones. In short, based on the findings of the studies above, we can say that there are many factors influencing LLL of teachers; those include gender, age, education qualification, and seniorities.

In a separate study, "The evaluation of anthropological attitudes towards social professional and lifelong learning in terms of some variables," Uzunboylu and Sarigoz (2015) investigated the knowledge, attitudes and perceptions of 434 students studying at vocational schools about LLL approach. The finding indicated that students had basic information about LLL Approach but were not conscious enough about some issues like professional development, professional adaptation, and the use of mass media related to LLL.

All the studies above used scale developed by Uzunboylu and Hürsen – the LLL attitudes scale, LLL competence scale, and LLL perceptions of competence scale – as tools to measure attitudes, competence, and competence perception. Since their work have been widely adapted as to measure and evaluate by many researchers, in this study, researcher adapted the Lifelong Learning Competence Scale (LLLCS) developed by

Uzunboylu and Hürsen (2011) as data gathering tool to measure LLLC of the target group.

Believing that professional development of university teachers constitutes a continuous process that is based on LLL concept, Duţă and Rafailă, (2014) conducted a study to show the importance of LLL for professional development of university teaching staff as perceived by the teachers, and found that the professional improvement and development are sources of a professional continuum and LLL in the knowledge society.

In a nutshell, there have been many studies with the interest in LLL; however, none of the above has touched on T3L or teachers' LLLC in the context of our country; it is miserable for the fact that we can hardly find any studies conducted on Cambodian teachers' LLL skills/competencies. Most studies were done elsewhere with primary, pre-service teachers about their attitudes or perception toward LLL, and students' LLLC. Researcher had a sense of the need for more studies to measure LLLC of teachers and the need for the focus on school support, specifically in Cambodian context. This study would help unlock a view on LLLC of teaching staff and the T3L support of their institution within Cambodia.

CHAPTER 3
METHOD

1. Research Design

This was a survey about LLLC of Technical Engineering Teaching Staff (TETS) done as a case study at ITC, a higher education institution among 121 HEIs in Cambodia ([MoEYS], 2016). Sample size, research tool, and procedure can be found in the following sections.

Table 1: Research framework

Research Framework		
Research Question	**Data Type**	**Tool**
1 and 2	Quantitative	LLLCS (Uzunboylu & Hürsen, 2011) Participants' Background Questionnaire
3	Quantitative	System Support Criteria (Keller, 2002)

To answer to the research question 1 (What is the level of lifelong learning competence in general of technical engineering teaching staff at ITC?) and 2 (what are the significant differences of lifelong learning competencies among the staff by gender, qualification, department and age group?), LLLCS developed by Uzunboylu and Hürsen (2011) was adapted to collect quantitative data. System Support Criteria designed by Keller (2002) was used to collect quantitative data to answer to research question 3 (based on teaching staff's perspective, to what extent does ITC support T3L culture?).

2. Sample and Sampling

Participants in this research were TETS of ITC which believed to be one of leading technological engineering institutions of higher education in Cambodia. The researcher intentionally chose ITC to conduct the research for three reasons. First, since it is one among leading institutions in Cambodia, it should have advanced teaching and learning environment to guarantee its fame. In this regard, LLL should be there to exist. As stated in Chapter 1 above, technology led the educational turning point toward LLL since the 1990s. So, seeing LLL competencies of teaching staff there can help us reflect to the rest of HEIs with similar characteristics to ITC about the capability of their staff. Moreover, finding out how ITC support T3L can make us realize the possibility of success of sustainable LLL existence there.

Table 2: Number of ITC TETS in each department and their qualification

Departments	TETS	Bachelor	Master	PhD
Chemical Engineering and Food Technology	24	2	16	6
Civil Engineering	31	7	13	11
Electrical and Energy Engineering	24	7	13	4
Geo-Resources and Geotechnical Engineering	19	3	8	8
Information and Communication Engineering	21	3	16	2
Industrial and Mechanical Engineering	17	1	9	7
Rural Engineering	26	3	14	9
Grand Total	**162**	**26**	**89**	**47**

ITC (2016) consisted of 8 Departments and 2 Language Sections. The scope of this research covered only TETS of 7 Departments with 162 TETS including 47 teaching staff with PhD, 89 with Master's Degree, and 26 of Bachelor's Degree holders. Since the number of population is small, researcher used non-probability sampling which means the

entire population were chosen to be participants of the study. Table 2 showed the number of ITC TETS in each department and their qualifications.

3. Instrument

The questionnaire used in collecting data for this study consisted of two main parts (see Appendix II). The first part formed by the researcher covered participants' background information about gender, age, department, and qualification. The second part, on the other hand, included LLLCS (Uzunboylu & Hürsen, 2011) and System Support Criteria (Keller, 2002) whose items were simplified in the form of full sentences, then translated into Khmer.

In order to measure LLLC of the participants, LLLCS or Lifelong Learning Competencies Scale was adapted from Uzunboylu and Hürsen (2011), whose scales had been adapted by many researchers, namely (1) Uzunboylu and Hürsen (2013) who explored teachers' attitude and perceptions of LLLC, (2) Özcan (2011) who measured teachers' competence perceptions toward LLL, (3) a study evaluating anthropological attitudes towards social professional and LLL done by Uzunboylu and Sarigoz (2015), Özcan and Uzunboylu (2012) whose study was "Perceptions of principals towards lifelong learning", (4) a study of Ozdamli, and Ozdal (2015) on a topic "Life-long learning competence perceptions of the teacher and abilities in using information-communication technologies", and (5) a study on "The evaluation of competence perceptions of primary school teachers for the lifelong learning approach" by Bozat, Bozat and Hürsen (2014).

LLLCS consisted of 51 items referring to 6 sub-dimensions including (a) Self-management competencies 13 items, (b) Competencies of learning how to learn 12 items, (c) Competencies of initiative and entrepreneurship 10 items, (d) Competencies on

acquiring information 6 items, (e) Digital competencies 6 items, (f) Competencies of decision-taking 4 items. For each item, a 5-point Likert scale was used which ranged 1-Very Poor, 2-Poor, 3-Fair, 4-strong, and 5-Very Strong.

Table 3: Cronbach Alpha reliability of LLLCS in accordance to each sub-dimension

LLLCS Sub-dimensions	Coefficient of reliability
Self-management competencies	0.93
Competencies of learning how to learn	0.91
Competencies of initiative and entrepreneurship	0.89
Competencies on acquiring information	0.83
Digital competencies	0.85
Competencies of decision-taking	0.75

Uzunboylu and Hürsen (2011) developed Lifelong Learning Competence Scale (LLLCS) in the aim of producing sufficiently qualified scale for the assessment of lifelong learning competencies. The study also analyzed structure of validity and reliability of the scale. The scale was developed as a result of literature review scan, interviews with academicians (N=17) and teachers (N=10), and composition written by the teachers. After questionnaire was formed, it was distributed to 300 teachers as to test its validity and reliability. Its structure validity factor analysis and internal consistency reliability test were examined by Croncbach Alpha coefficient. After the analysis, 15 items, whose load factor was below 0.40, were reduced from the scale and the final draft version contained only 51 items. The coefficient of Cronbach Alpha reliability of the scale was measured as 0.95 which means the internal consistency of the tool is excellent. Table 3 above showed coefficient of reliability of the Cronbach Alpha in accordance to the 6 sub-dimensions of LLLCS, (Uzunboylu & Hürsen, 2011, p. 453).

In addition to the above aspects, system support section was also included in the questionnaire in order to find out to what extent the institution advance LLL culture within their zone. The system support criteria designed by Keller (2002) was employed. In his formative research aiming at testing T3L, Keller stated that without system supports at place, there is no point in promoting T3L. He added that prioritize learning systematically can help creating LLL culture. Therefore, researcher adapted Criteria of System Support he developed as to measure ITC support for T3L.

The System Support Criteria consisted of 9 items referring to 2 sub-dimensions including (a) Make Learning a Priority 4 items and (b) Address Barriers 5 items. For each item, a 5-point Likert scale was used which ranged 1-Very Poor, 2-Poor, 3-Fair, 4-strong, and 5-Very Strong.

4. Procedure

Before the sample was determined, researcher had contacted to the Head of Academic Office in ITC in order to get exact number of teaching staff, detail information regarding their qualification, and in which department they are.

a. Data Collection

Data collection did not go as planned which should have been spent only 1 week, but the actual time spent was 6 weeks due to some unexpected problems. Researcher had planned to reach to all departments to introduce about the study and its benefit to direct participants after granted permission from director of ITC, but 2 weeks after no response from administration office, researcher was directed to contact to ITC Research Department for facilitation. Then, data collection instruments were organized into packages and sent to all departments via the Research Department. Researcher was

contacted to pick up survey questionnaire as research coordinators from all department had returned the packages.

b. Data Analysis

Once quantitative data had been obtained, it was analyzed using the software called Statistical Package for Social Sciences (SPSS). More specifically, the researcher mainly used the descriptive statistics and some inferential statistics, namely Means, Standard Deviation (S.D.), ANOVA, LSD, and *t*-Test.

The whole analysis tools and data source were summarized in the following table in responding to research questions.

Table 4: Summary of data source and data analysis for each research question

Research Questions	Data Source	Data Analysis
1. What is the level of lifelong learning competence in general of technical engineering teaching staff at ITC?	-LLLCS Questionnaire	Means, S.D
2. What are the significant differences of lifelong learning competencies among the staff by genders, qualification, departments, and age groups?	-Participants' Background Questionnaire -LLLCS Questionnaire	Means, *t*-Test, S.D, and ANOVA (LSD)
3. Based on teaching staff's perspectives, to what extent does ITC support T3L culture?	- Criteria of System Support Questionnaire	Means, S.D

As to determine whether there were statistically significant differences between the means of two groups, *t*-Test was used, and ANOVA or Analysis of Variance was used to determine the significant difference of mean score between three groups and more. Furthermore, when the significant difference of the mean score were found in the test of ANOVA, Least Significant Difference (LSD) was used to find out between which groups of the three or more groups was different from one another.

To interpret the meaning of average mean score of the Competency or the System Support whether it is high or low, researcher adapted the five levels of interpretation criteria developed by Srisa-art (2003).

Table 5: The key to understand average of usage group

Mean Score	Rank
from 1.00 to 1.50	Lowest
from 1.51 to 2.50	Low
from 2.51 to 3.50	Moderate
from 3.51 to 4.50	High
from 4.51 to 5.00	Highest

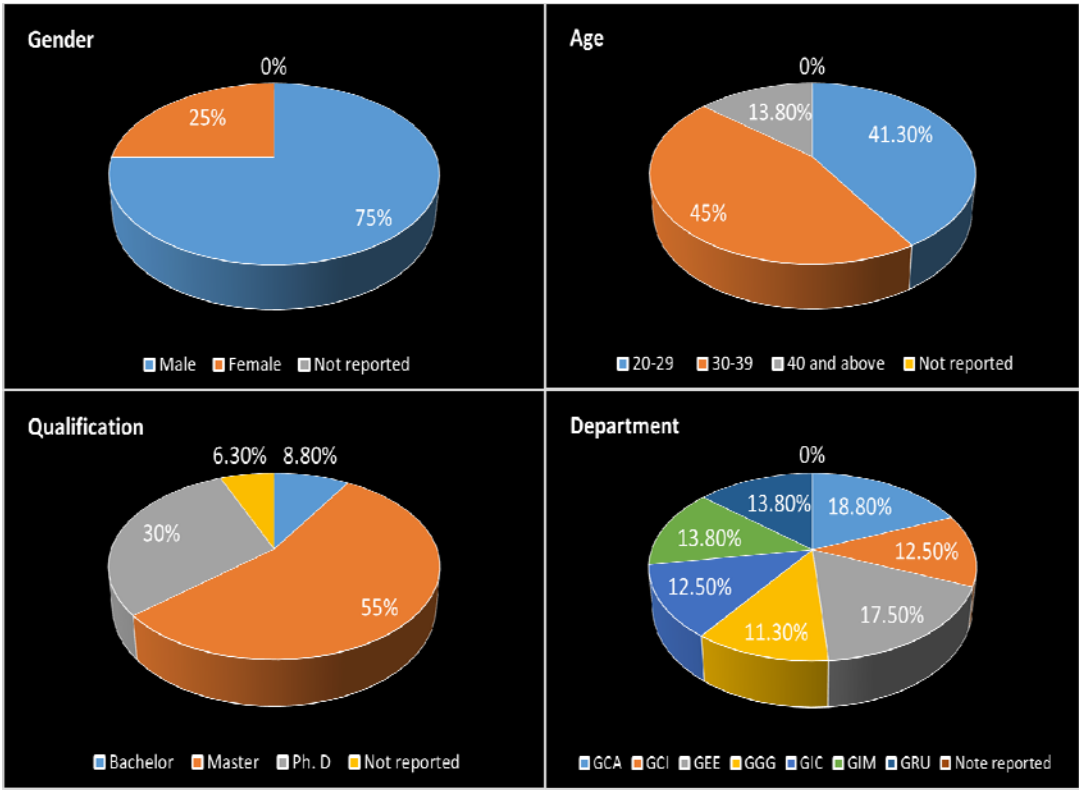
5. Ethical Consideration

After necessary permission granted from ITC in order to collect data (see Appendix III), participants were well informed in written form that their answers would surely be kept confidential to make them feel more secure in revealing their frank answer about themselves as well as about their perception of the institute. The participants were not required to have their name or identity written on the questionnaire.

CHAPTER 4
FINDINGS

The following figures described the overview of participants in this study which stressed on four-key categories – gender, chronological age, education qualification, and department.

Figure 1: Participants' distribution by gender, age group, qualification, and department



Total number of participants in this study (see Appendix I, Table 6) was 80 technical engineering teaching staff (TETS) from 7 departments. Male covered three fourth of the participants, while female was only one fourth. Age of the participants were divided into 3 groups. Age distribution was as follow: 41.3% of the participant's age

ranged from 20 to 29, nearly half of them ranged from 30 to 39, and the smallest group was the 40 years old and above. For distribution of qualification, Bachelor Degree holders were 8.8%, Master's Degree holders were more than half of the participants, 30% were PhD holders, and 6.3% other was not responded to the particular question about their qualification. The number of participants from each Department was between 9 and 15, all of which included 15 participants from Department chemical engineering and food technology (GCA), 10 participants from Department civil engineering (GCI), 14 participants from Department electrical and energy engineering (GEE), 9 participants from Department geo-resources and geotechnical engineering (GGG), 10 participants from Department information and communication engineering (GIC), 11 participants from Department industrial and mechanical engineering (GIM), and the other 11 participants from Department rural engineering (GRU).

Table 7: Cronbach Alpha reliability of LLLCS in accordance to each sub-dimension in the current study

LLLCS Sub-dimensions	Coefficient of reliability (α)	Internal Consistency
SMC: Self-management competencies	0.859	Good
CLHL: Competencies of learning how to learn	0.835	Good
CIE: Competencies of initiative and entrepreneurship	0.876	Good
CAI: Competencies on acquiring information	0.805	Good
DC: Digital competencies	0.873	Good
CDM: Competencies of decision-making	0.793	Acceptable

Table 7 showed coefficient of reliability of the Cronbach Alpha in accordance to the 6 sub-dimensions of LLLCS found in this study. As seen in the table, coefficient of reliability of all sub-dimensions was above 0.70, Self-management competencies

(α=0.859), Competencies of learning how to learn (α = 0.835), Competencies of initiative and entrepreneurship (α = 0.876), Competencies on acquiring information (α = 0.805), Digital competencies (α = 0.873), and Competencies of decision-making (α = 0.793); therefore, they were reliable.

1. TETS' LLLC in General

Table 8 below presented that LLLC of TETS in general was high with an overall mean score of 4.09 out of five Linkert scale. The highest competence was Digital Competencies (M=4.36) followed by Competencies of Acquiring Information (M=4.16), Self-management Competencies (M=4.08), Competencies of Learning How to Learn (M=3.98), Competencies of Initiative and Entrepreneurship (M=3.96), and Competencies of Decision-making (M=3.85).

Table 8: TETS' LLLC in general and in accordant to different aspects

Dimension	N	Min.	Max.	Mean	Rank
Self-management Competencies	76	2.92	5.00	4.08	3
Competencies of Learning How to Learn	76	2.67	5.00	3.98	4
Competencies of Initiative and Entrepreneurship	77	2.10	5.00	3.96	5
Competencies on Acquiring Information	78	1.83	5.00	4.16	2
Digital Competencies	76	2.50	5.00	4.36	1
Competencies of Decision-making	76	2.00	5.00	3.85	6
Total: Lifelong Learning Competencies	67	2.80	5.00	4.09	High

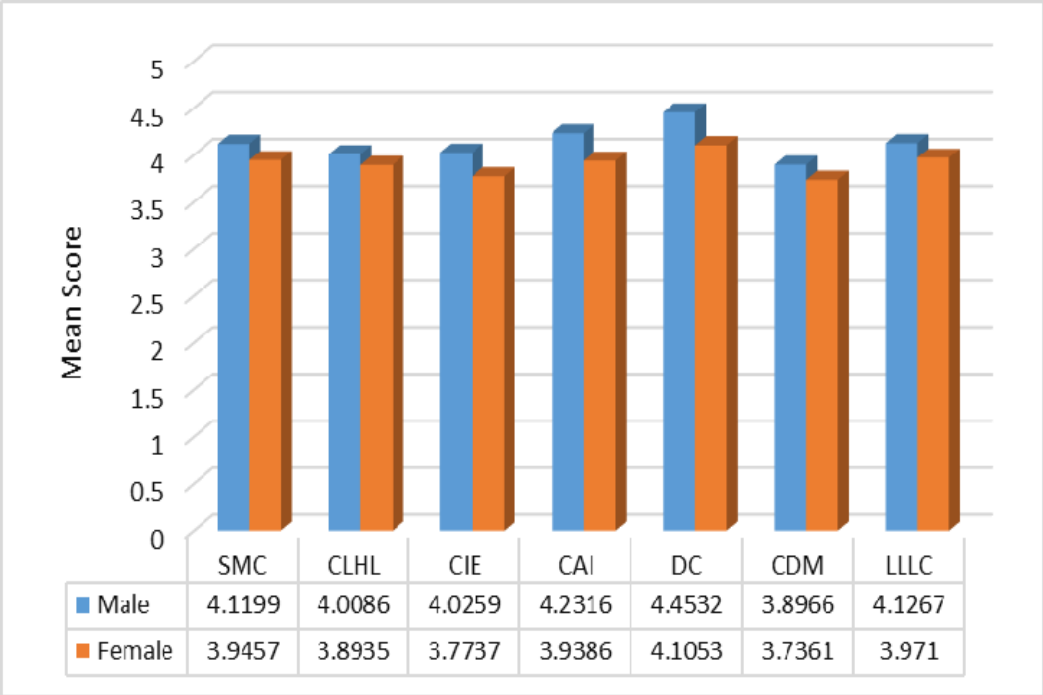
2. TETS' LLLC in Regard of Gender

To find out whether or not there was significant difference of LLLC between TETS' gender, *t*-Test analysis was administered. The results of TETS' gender and their LLLC were offered in table 9 (see Appendix I).

The table showed that mean score of male participants were similar to that of female participants in all sub-dimensions. Males were scored (M=4.19, S.D.=.447) and females (M=3.94, S.D.=.502) in self-management competencies, $t(74) = 1.376$, $p = .173$. Similarly, mean score of males was measured (M=4.00, S.D.=.468) and females (M=3.89, S.D.=.472) in competencies of learning how to learn, $t(74) = .908$, $p = 367$. The same for competencies of initiative and entrepreneurship, $t(75) = 1.705$, $p = .092$; males were scored (M=4.02, S.D.=.506) and females were (M=3.77, S.D.=.699). For competencies on acquiring information, $t(76) = 1.776$, $p = .08$, mean score of males was (M= 4.23, S.D.= .581) and (M=3.93, S.D.=.749) for females. There was also no difference for digital competencies, $t(74) = 1.975$, $p = .052$; the mean score of males was (M=4.45, S.D.=.622) and was (M=4.10, S.D.=.782) for females. For competencies of decision-making, $t(74) = .885$, $p = .379$, the mean score of males was (M=3.89, S.D.=.631) and for females (M=3.73, S.D.=.792). This means that there was no significant difference between male and female participants regarding LLLC namely self-management competencies, competencies of learning how to learn, competencies of initiative and entrepreneurship, competencies on acquiring information, digital competencies, and competencies of decision-making.

In general, there was no significant difference found between the mean score of TETS males (M=4.12, S.D.= .413) and females (M=3.97, S.D.=.561) regarding their lifelong learning competencies, $t(65) = 1.182$, $p = .242$, although females were found slightly less competent than males in all sub-dimensions as shown in figure 2. The mean score of females was lower than that of males from 0.1 to 0.3.

Figure 2: TETS' LLLC sub-dimension in regard of gender



	SMC	CLHL	CIE	CAI	DC	CDM	LLLC
Male	4.1199	4.0086	4.0259	4.2316	4.4532	3.8966	4.1267
Female	3.9457	3.8935	3.7737	3.9386	4.1053	3.7361	3.971

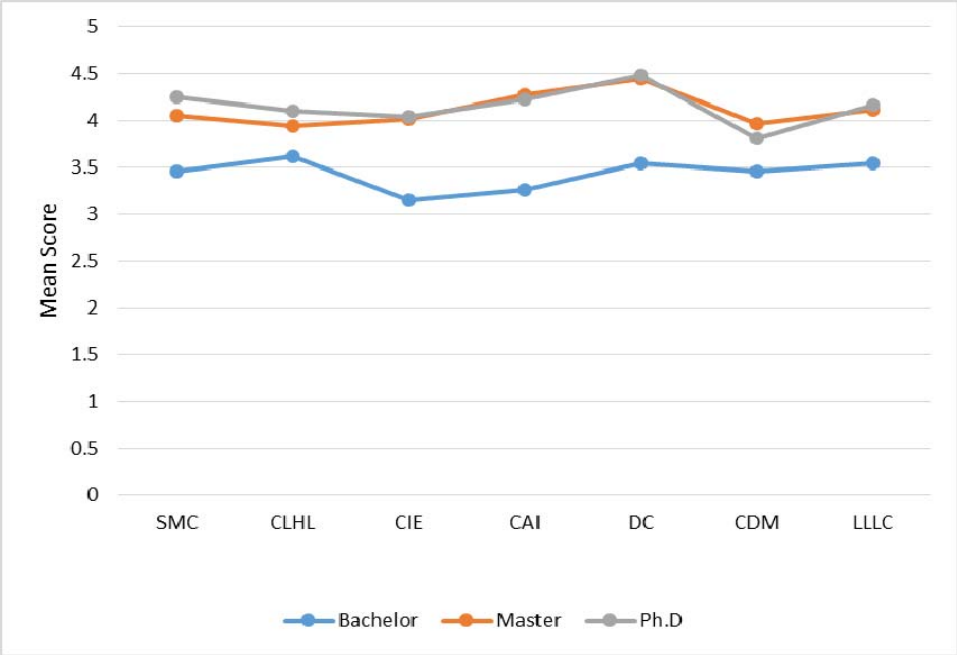
3. TETS' LLLC in Regard of Qualification

ANOVA or Analysis of Variance was employed to determine whether or not there was significant difference between TETS' LLLC according to their level of education, Bachelor, Master's, and PhD.

According to the test results shown in table 10a (see Appendix 1), the mean score of TETS' LLLC regarding competencies of learning how to learn (p=.093) and competencies of decision-making (p=.135) had no significant difference. For competencies of learning how to learn, TETS with Bachelor were scored (M=3.61, S.D.=.356), while (M=3.94, S.D.= .438) for Master holders and (M=4.10, S.D.=.530) for PhD holders. For competencies of decision-making, TETS with Bachelor were scored (M=3.46, S.D.=.727), while Master holders were (M= 3.97, S.D.=.593) and for PhD

holders (M=3.81, S.D.= .692). In short, the teachers with different qualification had similar competencies of learning how to learn and competencies of decision-making.

Figure 3: TETS' LLLC sub-dimension in regard of qualification



However, regarding self-management competencies [F(2, 67) = 7.037, p=.002], competencies of initiative and entrepreneurship [F(2, 69) = 7.747, p= .001], competencies on acquiring information [F(2, 71) = 9.351, p=.000], and digital competencies [F(2, 69) = 6.735, p=.002), significant difference was found. For self-management competencies, TETS with Bachelor were scored (M= 3.46, S.D.=.376), while (M= 4.05, S.D.=.477) for Master holders and (M=4.25, S.D.=.364) for PhD holders. For competencies of initiative and entrepreneurship, TETS with Bachelor were scored (M=3.15, S.D.=.564), while (M= 4.02, S.D.=.459) for Master holders and (M= 4.04, S.D.=.623) for PhD holders. For competencies on acquiring information, TETS with Bachelor were scored (M=3.26, S.D.=.786), while (M=4.27, S.D.=.467) for Master holders and (M= 4.22, S.D.=.696) for PhD holders. For digital competencies, TETS holding Bachelor were scored (M= 3.54,

S.D.= .926), while (M=4.45, S.D.=.528) for Master holders and (M= 4.48, S.D.= .696) for PhD holders. In short, there was significant difference in self-management competencies, competencies of initiative and entrepreneurship, competencies on acquiring information, and digital competencies between the three groups; and LLLC in general [F(2, 60) = 3.491, p = .037] was also significantly different among the groups.

LSD (Least Significant Difference) was administered to figure out where the significant difference was among the groups of qualification. The results indicated that there was significant difference in self-management competencies, competencies of initiative and entrepreneurship, competencies on acquiring information, digital competencies, and lifelong learning competence in general between TETS with Bachelor Degree and the other two, Master and PhD holders (see table 10b, Appendix 1).

Overall, although PhD holders (M=4.16, S.D.=.499) were slightly more competent in LLL than Master's degree holders (M=4.11, S.D.= .385), if compared to Bachelor holders (M=3.54, S.D=.511), Master and PhD were far higher. The figure 3 above concluded that the higher qualification of TETS, the more competent in LLL they were.

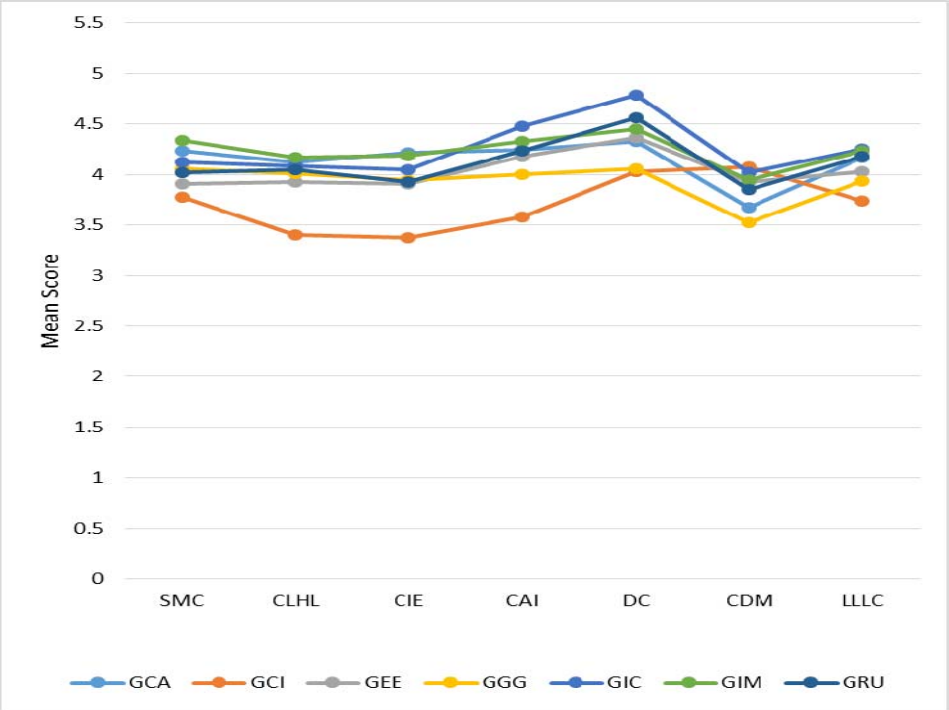
4. TETS' LLLC in Regard of Department

As shown in table 11a (see Appendix I), all departments were scored between (M=3.37 to M=4.78); Department GCA was scored (M=4.23) for self-management competencies, (M=4.11) for competencies of learning how to learn, (M=4.22) for competencies of initiative and entrepreneurship, (M=4.24) for competencies on acquiring information, (M=4.33) for digital competencies, (M=3.67) for competencies of decision-making; Department GCI was scored (M=3.78) for self-management competencies, (M=3.40) for competencies of learning how to learn, (M=3.37) for competencies of initiative and entrepreneurship, (M=3.58) for competencies on acquiring information,

(M=4.03) for digital competencies, (M=4.07) for competencies of decision-making; Department GEE was scored (M=3.90) for self-management competencies, (M=3.92) for competencies of learning how to learn, (M=3.90) for competencies of initiative and entrepreneurship, (M=4.17) for competencies on acquiring information, (M=4.36) for digital competencies, (M=3.92) for competencies of decision-making; Department GGG was scored (M=4.05) for self-management competencies, (M=4.00) for competencies of learning how to learn, (M=3.94) for competencies of initiative and entrepreneurship, (M=4.00) for competencies on acquiring information, (M=4.05) for digital competencies, (M=3.52) for competencies of decision-making; Department GIC was scored (M=4.12) for self-management competencies, (M=4.08) for competencies of learning how to learn, (M=4.05) for competencies of initiative and entrepreneurship, (M=4.48) for competencies on acquiring information, (M=4.78) for digital competencies, (M=4.02) for competencies of decision-making; Department GIM was scored (M=4.33) for self-management competencies, (M=4.17) for competencies of learning how to learn, (M=4.19) for competencies of initiative and entrepreneurship, (M=4.33) for competencies on acquiring information, (M=4.45) for digital competencies, (M=3.95) for competencies of decision-making, and Department GRU was scored (M=4.02) for self-management competencies, (M=4.04) for competencies of learning how to learn, (M=3.92) for competencies of initiative and entrepreneurship, (M=4.23) for competencies on acquiring information, (M=4.56) for digital competencies, (M=3.85) for competencies of decision-making.

For LLLC in general, Department GIC (M=4.25) was scored the highest among all departments and followed by department GIM (M=4.23), GRU (M=4.17), GCA (M=4.16), GEE (M=4.03), GGG (M=3.93), and GCI (M=3.74). Figure 4 showed the summary of LLLC in general with all sub-components by department.

Figure 4: TETS' LLLC sub-dimension in regard of department



In regard of Department, significant difference was found in three aspects, competencies of learning how to learn [F(6,69)=3.471 ,p=.005], competencies of initiative and entrepreneurship [F(6,70)=3.173, (p=.008), and competencies on acquiring information F(6,71)=2.315, p=.042). Researcher used LSD for the purpose to figure out where the significant was among the departments. The results showed that there was a statistically significant difference occurred in competencies of learning how to learn and competencies of initiative and entrepreneurship between TETS belonging to Department GCI and the others TETS in the rest of the departments at .005 and .008 level; Department GCI was scored lower than the others 6 departments. Again for dimension competencies on acquiring information, the significant difference was found between Department GCI and other 5 departments at .042 level, except for Department GGG.

Table 12: Rank of LLLC by departments in accordance to each sub-dimension

Department	Rank						
	SMC	CLHL*	CIE*	CAI*	DC	CDM	LLLC
GIC	3	3	3	1	1	2	1
GIM	1	1	2	2	3	3	2
GRU	5	4	5	4	2	5	3
GCA	2	2	1	3	5	6	4
GEE	6	6	6	5	4	4	5
GGG	4	5	4	6	6	7	6
GCI	7	7	7	7	7	1	7

Note: (*) marked where significant difference was found.

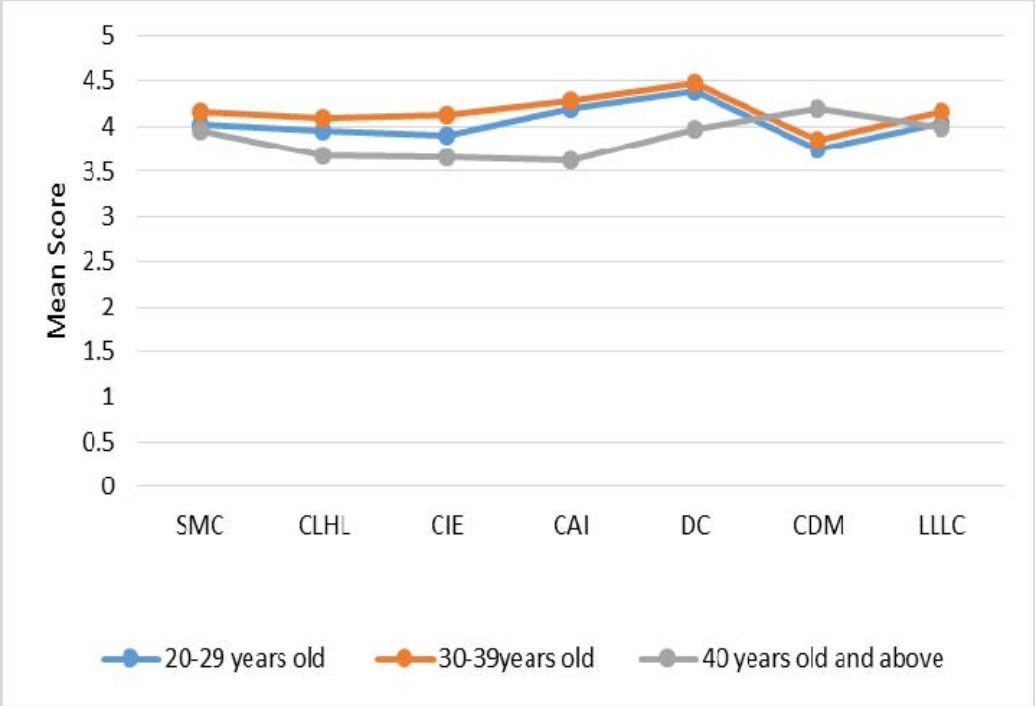
Table 12 above indicated that LLLC of TETS in Department GIC ranked the highest with an overall mean score of 4.25 followed by Department GIM, GRU, GCA, GEE, GGG, and Department GCI. Noticeably, among all departments, Department GCI ranked the lowest on 5 sub-dimensions (self-management competencies, competencies of learning how to learn, competencies of initiative and entrepreneurship, competencies on acquiring information, and digital competencies) but the highest on competencies of decision-making as seen in figure 4.

5. TETS' LLLC in Regard of Age Group

ANOVA was used to determine significant difference between TETS' LLLC according to their age group. Based on the test results shown in table 13a (see Appendix I), the mean score of TETS' LLLC regarding self-management competencies (p=.405), digital competencies (p=.098), competencies of decision-making (p=.154), and LLLC in general (p=.553) had no significant difference.

However, the respondents from different age groups tended to perform differently in competencies of learning how to learn [F(2,73)=3.118, p=.050], competencies of initiative and entrepreneurship [F(2,74)=3.163, p=.048], and competencies on acquiring information [F(2,75)=5.321, p=.007). For competencies of learning how to learn, TETS who were 20 to 29 years old were scored (M=3.95), 30 to 39 years old were (M=4.08), and 40 years old and above were (M=3.66). For competencies of initiative and entrepreneurship, TETS who were 20 to 29 years old were scored (M=3.89), 30 to 39 years old were (M=4.12), and 40 years old and above were (M=3.66). For competencies on acquiring information, TETS who were 20 to 29 years old were scored (M=4.20), 30 to 39 years old were (M=4.29), and 40 years old and above were (M=3.62).

Figure 5: TETS' LLLC sub-dimension in regard of age group



According to LSD, result presented that there were statistically significant difference found in three aspects between TETS whose age were from 30 to 39 and the

oldest group, 40 years old and above, regarding competencies of learning how to learn (p=.050) and competencies of initiative and entrepreneurship (p=.048); the older participants were scored lower. For competencies on acquiring information (p=.007), significant difference was found between participants who were 40 years old up and those who were in their 20s and 30s; again, younger TETS had higher score. (See Appendix I, Table 13b)

As seen in table 14 below, TETS aged between 30 to 39 years old ranked the highest followed by those who were between 20 to 29 years old and those who were from 40 years old and above. A noticeable point occurred in competencies of decision-making since the participants whose age was from 40 years old and above ranked the lowest in 5 dimensions (self-management competencies, competencies of learning how to learn, competencies of initiative and entrepreneurship, competencies on acquiring information, and digital competencies) but the highest on competencies of decision-making.

Table 14: Rank of LLLC by age groups in accordance to each sub-dimension

Age Group (in year)	Rank						
	SMC	CLHL*	CIE*	CAI*	DC	CDM	LLLC
30-39	1	1	1	1	1	2	1
20-29	2	2	2	2	2	3	2
40-above	3	3	3	3	3	1	3

Note: (*) marked where significant difference was found.

6. ITC System Support

As indicated in the table below, system support for lifelong learning of ITC was high (M=3.79). In the regard of each aspect, make learning a priority was scored (M=3.74), while address barriers was scored (M=3.83).

Table 15: ITC System Support in general and in different aspects

System support	N	Min.	Max.	Mean	S.D	Rank
Make Learning a Priority	75	1.50	5.00	3.74	.768	2
Address Barriers	76	1.40	5.00	3.83	.697	1
Total System Support	71	1.75	5.00	3.79	.652	High

Based on perspective from different groups, it was found that ITC had similar system support for its teaching staff regardless of gender or age. Mean score of System Support for female was found (M=3.88) and male (M=3.76); participants whose age was 20-29 (M=3.82), 30-39 (M=3.76), and 40 up (M=3.83).

Table 16: System support by gender, department, and age group

Variable		Mean Score	Rank
Gender	**Male**	3.76	High
	Female	3.88	High
Department	**GCA***	4.05	High
	GCI	3.58	High
	GEE*	3.96	High
	GGG*	3.97	High
	GIC	3.78	High
	GIM*	3.33	Moderate
	GRU	3.82	High
Age Group	**20-29**	3.82	High
	30-39	3.76	High
	40-above	3.83	High

Note: (*) marked where significant difference was found.

However, different department perceived the level of system support differently. According to analysis using LSD, GIM department was found having less support as mean score for system support was found the least (M=3.33) which had statistically

significant difference compared to Department GEE (M=3.96), GGG (M=3.97, and Department GCA (M=4.05).

CHAPTER 5
DISCUSSION

1. Limitation of the Study

This current study had some limitations as mentioned in the following. First, the study was conducted in only one HEI in Phnom Penh and the participants were restricted to only teaching staff in the institute. It was also limited by the small number of respondents since the returned questionnaire was relatively half of the delivered copies. Second, the study did not examine neither the impact of the participants' competence on their teaching nor the correlation between the system support of the institute and the competence of the teaching staff. Finally, results of this study may not be completely generalizable to LLLC of teaching staff in HEI as a whole in Cambodia other than those with similar characteristics to ITC.

2. Discussion

a. LLLC in General

The current study revealed that the lifelong learning competencies of the teaching staff at ITC was high. Though the findings were quite new in Cambodian context where there were no such studies on the competence of lifelong learning, the findings lent more support to 4 studies done in Turkish Republic of Northern Cyprus. For instance, compared to the findings from some studies conducted by Ozdamli and Ozdal (2015), Uzunboylu and Hürsen (2013), Özcan and Uzunboylu (2012), and by Özcan (2011), the overall competence of the participants in these studies and the current study was similarly high; mean score of participants of current study was (M=4.09) and that of the previous studies were (M=4.09, M=3.92, M=3.89, M=4.04) respectively. However, once we

looked at the sub-component level, it was found that the "Digital competencies" of the teachers in the current study was scored the highest among the other components, while that in the previous ones was the lowest. This might happen due to the distribution of participants in the current study that contained a group of teaching staff from department of "Information and Communication Engineering" which is obvious that they have high digital literacy.

b. LLLC Significant Difference by Categories

Regarding comparison of lifelong learning mean score between different gender, qualification, department, and age group, the current study found that only qualification of participants showed statistically significant difference, which can be said that the level of qualification influents the competence of lifelong learning. Likewise, a study evaluating 87 primary school teachers done by Özcan (2011) also found that teachers having Master/PhD degree were more competent than the teacher having Bachelor degree. In another study Özcan conducted with Uzunboylu (2012), the result aligned with the current study which indicated that Master perceived themselves to be more competent than Bachelor. Their study was conducted with only two groups, Bachelor and Master, and PhD group was not included. Therefore, this current study was extended to examine three separated groups including Bachelor, Master and PhD, and discovered that although PhD were slightly more competent than Master, they appeared to have no statistically significant difference. In addition, Master was found a bit more competent than PhD in some competencies such as "Competencies on Acquiring Information" and "Competencies of Decision-making". This means that Master and PhD had similar competence of LLL.

c. LLLC Significant Difference by Gender

There were similar and different research findings revealing LLLC related to gender. This study found no significant difference of lifelong learning competencies between male and female participants. This finding is supported by Özcan (2011) who also found that gender had no significant difference in LLLC in general; however, regarding "Competence for obtaining knowledge" and "Digital competence," he found male was more competent than female on these 2 sub-dimensions. Özcan and Uzunboylu (2012) also showed no significant difference between the LLLC mean score of males and females eventhough females perceived themselves to be more competent regarding "Decision making" than males. On the contrary, a study on 614 teachers with 66.3% female and 33.7% male done by Uzunboylu and Hürsen (2012) found significant difference on lifelong learning in general and on "Self-management Competencies", "Competencies of Learning How to Learn", and "Competencies of Initiative and Entrepreneurship" by showing that female was more competent than male. Although meaningful significant was not found in this current study, detail information showed that in all aspects males were slightly more competent in lifelong learning than that of females. These contradict research results perhaps caused by factors involving the sociology of human resource development in our country and that of Turkish vary from one another which have caused male and female differ in building up competence. By the way, looking at the gender distribution, we can see that female was only 25% of the participants in the current study, while the female in the previous one was 66.3%. The number of distribution might, more or less, affected the result of the studies.

d. LLLC Significant Difference by Age

When examined more detail of each component of lifelong learning competencies concerning age group, it is found that there was significantly difference of 3 sub-dimensions, "Competencies of Learning How to Learn", "Competencies of Initiative and Entrepreneurship", and "Competencies of Acquiring Information". Younger participants were more competent than older ones related to these 3 sub-dimensions even though their lifelong learning competencies in general showed no significant difference. In other words, age does not determine LLLC of the teachers in general. In contrast, the studies by Uzunboylu and Hürsen (2012) and Bozat et al. (2014) found significant difference by showing that younger teacher perceived themselves more competent than the older ones. The reason causing no different LLLC by age found in the current study might be related to the flow of the country development which had been interrupted in the previous few decades making Cambodian young and old have random opportunity to strengthen their qualification ever since. The people in their early 50s 40s, and late 30s, had started receiving formal education at the same time around 1980s to early 1990s after the almost complete loss of scholars and educational structure.

e. Other Findings

An eye-catching finding in the current study was that the participants in the oldest age group, 40 years old and above, and those in department GCI which had the lowest competence in almost all sub-components, namely "Self-management competencies", "Competencies of learning how to learn", "Competencies of initiative and entrepreneurship", "Competencies on acquiring information", and "Digital competencies", tended to have the highest score in "Competencies of Decision-making". As participants from the department GCI were mostly in the group "40 years old and above", it can be

assumed that the older the teachers, the better decision-maker they were. However, a study by Uzunboylu and Hürsen (2012) conducted with 6 different groups of age found that the participants had almost equal "Competencies of Decision-making". The mean score of the groups in their study regarding "Competencies of Decision-making" was between M= 3.83 to M=3.94, while the mean score of participants in the current study was between M=3.75 to M=4.20.

f. LLL System Support

Turning to friendly condition to promote LLL in school, it was found that ITC system support was high. According to Keller (2002), without certain systematic supports from school, professional development is not likely to happen. Hence, with the finding illustrated above, it is believed that teacher capacity and professional development at ITC is being promoted in a noticeable way to answer to the swiftly updated information and technology.

CHAPTER 6
CONCLUSION

1. Summary and Implications

The purpose of this study was to investigate the Lifelong Learning Competence of ITC Technical Engineering Teaching Staff and system support of this institute in promoting lifelong learning culture for teachers. The study also aimed at finding out statistical significant difference of LLLC among participants by their gender, education qualification, department, and age group. The study was carried out with 80 out of 162 TETS from 7 different departments during 2016-2017 academic year. Lifelong Learning Competence Scale developed by Uzunboylu and Hürsen (2011) was adapted as data-collecting tool. Data obtained was analyzed by using software called Statistical Package for Social Sciences (SPSS). The study found that the teaching staff participated in the research were highly competent in lifelong learning. It is also important to point out that there was no significant difference found in LLLC in general related to gender, department, and age groups, except for education qualification groups.

Although the study indicated that males and females happened to have similar competence of LLL, the results seems catch our attention in the way that females were found slightly less competent by 0.1 to 0.3 of mean score compared to males in all aspects. This suggests a need to put more consideration on advocating female teaching staff's competence development in LLL. This can be done through providing them more opportunity in training and attending subsequent development activities. Motivation is another factor to consider to conquer their fear in order to grow in the same way to males.

Number of participants might more or less affect the result of the study, so study to be carried afterward should be conducted with number of female participants relatively equivalence to male participants since the number of female participants in this study was much smaller than males,.

Concerning qualification, the significant difference of LLLC was found among the participants with different degrees; that is, the higher their qualification, the more competent in lifelong learning they were. It is, therefore, suggested that to reinforce LLLC among teaching staff at ITC, the teaching staff with Bachelor should be encouraged and supported to pursue their professional and academic education to higher level. They should gain at least Master if not PhD for the fact that Master and PhD had similar competence of LLL as found in this study.

When examined more detail of each component of LLLC, we found that there was significant difference of LLLC in regard of (1) Self-Management Competencies, (2) Competencies of Initiative and Entrepreneurship, (3) Competencies on Acquiring Information, and (4) Digital Competencies between Master, PhD holders and those with Bachelor Degree. Moreover, in relation to department and age group, it also revealed significant difference of 3 sub-dimension, "Competencies of Learning How to Learn", "Competencies of Initiative and Entrepreneurship", and "Competencies on Acquiring Information" between the groups within the 2 categories. An interesting finding pointed out that the groups whose mean score was low in almost all aspects had the highest mean score in the aspect "Competencies of Decision-making". To this point, subsequent study should investigate this doubtful trend and on what make it that way, and how this contradiction occurs. As for the system support for the promotion of lifelong learning, it was found high at ITC.

2. Recommendations for Further Research

There are quite various and numerous topics for research to be conducted regarding lifelong learning concept, competence, and conduct in Cambodian context since it is a very newly born field of study. Some topics have already been recommended earlier to fill the gaps of the current study and the following are some more topics proposed for the next studies on LLL.

Further studies to be carried out could be about various concerns. For one thing, the studies can look at the concept of LLL perceived by faculties in higher education institutions; it can be about what they think LLL and its role is. Moreover, since the current study showed how competent in LLL the teachers were but not yet revealed whether they were lifelong learners, following studies should examine teachers as lifelong learners by investigating on teachers' attitude toward LLL. Regarding system support for teachers as lifelong learners, next researchers could pay closer attention on CPD (continuing professional development) for teachers in Cambodia since teaching is a profession, or the study can observe the support HEIs should consider offering in order to promote T3L culture to match with the context of our country. Last but not least, another important topic to consider is correlation between teachers' LLLC and their teaching performance and or their current practice of T3L. By looking at these recommended topics, findings of the studies can surely serve as primary concerns to take LLL approach into action for the sake of education improvement of Cambodia as a whole.

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APPENDIX I

Table 6: Participants general over view

Participant Overview		N	%
Gender	Male	60	75
	Female	20	25
	Not reported/ Missing	0	0
Age group (in years)	20-29	33	41.3
	30-39	36	45
	40 and above	11	13.8
	Not reported/ Missing	0	0
Qualification	Bachelor	7	8.8
	Master	44	55
	PhD	24	30
	Not reported/ Missing	5	6.3
Department	GCA (Chemical engineering and food technology)	15	18.8
	GCI (Civil engineering)	10	12.5
	GEE (Electrical and energy engineering)	14	17.5
	GGG (Geo-resources and geotechnical engineering)	9	11.3
	GIC (Information and communication engineering)	10	12.5
	GIM (Industrial and mechanical engineering)	11	13.8
	GRU (Rural engineering)	11	13.8
	Note reported/ Missing	0	0

Table 9: TETS' LLLC in regard of gender

Dimension	Gender	N	Mean	S.D.	*df*	*t*	*p*	Explanation
SMC	Male	59	4.11	.447	74	1.376	.173	p>0.05 Insignificant
	Female	17	3.94	.502				
CLHL	Male	58	4.00	.468	74	0.908	.367	p>0.05 Insignificant
	Female	18	3.89	.472				
CIE	Male	58	4.02	.506	75	1.705	.092	p>0.05 Insignificant
	Female	19	3.77	.699				
CAI	Male	59	4.23	.581	76	1.776	.080	p>0.05 Insignificant
	Female	19	3.93	.749				
DC	Male	57	4.45	.622	74	1.975	.052	p>0.05 Insignificant
	Female	19	4.10	.782				
CDM	Male	58	3.89	.631	74	0.885	.379	p>0.05 Insignificant
	Female	18	3.73	.792				
Total LLLC	Male	52	4.12	.413	65	1.182	.242	p>0.05 Insignificant
	Female	15	3.97	.561				

Table 10a: TETS' LLLC in regard of qualification

Dimension	Qualification	N	Mean	S.D.	*p*	Explanation
SMC	Bachelor	5	3.46	.376	.002	p<0.05 Significant
	Master	42	4.05	.477		
	PhD	24	4.25	.364		
CLHL	Bachelor	5	3.61	.356	.093	p>0.05 Insignificant
	Master	42	3.94	.438		
	PhD	24	4.10	.530		
CIE	Bachelor	6	3.15	.564	.001	p<0.05 Significant
	Master	43	4.02	.459		
	PhD	23	4.04	.623		
CAI	Bachelor	7	3.26	.786	.000	p<0.05 Significant
	Master	43	4.27	.467		
	PhD	24	4.22	.696		
DC	Bachelor	7	3.54	.926	.002	p<0.05 Significant
	Master	42	4.45	.528		
	PhD	23	4.48	.696		
CDM	Bachelor	7	3.46	.727	.135	p>0.05 Insignificant
	Master	41	3.97	.593		
	PhD	24	3.81	.692		
Total LLLC	Bachelor	4	3.54	.511	.037	p<0.05 Significant
	Master	37	4.11	.385		
	PhD	22	4.16	.499		

Table 10b: Significant difference of TETS' LLLC in regard of qualification

Dimension		Sum of Squares	*df*	F	*p*
SMC	Between Group	2.69	2	7.037	.002
	Within Group	12.996	68		
	Total	15.686	70		
CIE	Between Group	4.268	2	7.747	.001
	Within Group	19.008	69		
	Total	23.277	71		
CAI	Between Group	6.33	2	9.351	.000
	Within Group	24.031	71		
	Total	30.361	73		
DC	Between Group	5.324	2	6.735	.002
	Within Group	27.273	69		
	Total	32.597	71		
Total LLLC	Between Group	1.324	2	3.491	.037
	Within Group	11.381	60		
	Total	12.705	62		

Table 11a: TETS' LLLC in regard of department

Dimension	Departments	N	Mean	S.D.	Rank	*p*	Explanation
SMC	GCA	14	4.23	.509	2	.112	p>0.05 Insignificant
	GCI	7	3.78	.339	7		
	GEE	14	3.90	.346	6		
	GGG	9	4.05	.605	4		
	GIC	10	4.12	.418	3		
	GIM	11	4.33	.351	1		
	GRU	11	4.02	.500	5		
CLHL	GCA	14	4.11	.478	2	.005	p<0.05 Significant
	GCI	9	3.40	.535	7		
	GEE	14	3.92	.277	6		
	GGG	9	4.00	.581	5		
	GIC	10	4.08	.335	3		
	GIM	11	4.17	.436	1		
	GRU	9	4.04	.312	4		
CIE	GCA	15	4.22	.641	1	.008	p<0.05 Significant
	GCI	10	3.37	.743	7		
	GEE	13	3.90	.366	6		
	GGG	9	3.94	.598	4		
	GIC	10	4.05	.302	3		
	GIM	11	4.19	.434	2		
	GRU	9	3.92	.392	5		

Table 11a: Continued

Dimension	Departments	N	Mean	S.D.	Rank	*p*	Explanation
CAI	GCA	15	4.24	.600	3	.042	p<0.05 Significant
	GCI	10	3.58	.933	7		
	GEE	14	4.17	.366	5		
	GGG	9	4.00	.772	6		
	GIC	10	4.48	.298	1		
	GIM	10	4.33	.515	2		
	GRU	10	4.23	.604	4		
DC	GCA	15	4.33	.791	5	.172	p>0.05 Insignificant
	GCI	10	4.03	.719	7		
	GEE	14	4.36	.543	4		
	GGG	9	4.05	.939	6		
	GIC	10	4.78	.176	1		
	GIM	10	4.45	.593	3		
	GRU	8	4.56	.603	2		
CDM	GCA	14	3.67	.780	6	.537	p>0.05 Insignificant
	GCI	10	4.07	.624	1		
	GEE	13	3.92	.553	4		
	GGG	9	3.52	.842	7		
	GIC	10	4.02	.342	2		
	GIM	10	3.95	.632	3		
	GRU	10	3.85	.818	5		
Total LLLC	GCA	12	4.16	.583	4	.196	p>0.05 Insignificant
	GCI	7	3.74	.419	7		
	GEE	12	4.03	.229	5		
	GGG	9	3.93	.605	6		
	GIC	10	4.25	.252	1		
	GIM	10	4.23	.439	2		
	GRU	7	4.17	.420	3		

Table 11b: Significant difference of TETS' LLLC in regard of department

Dimension		Sum of Squares	*df*	F	*p*
CLHL	Between Groups	3.827	6	3.471	.005
	Within Groups	12.681	69		
	Total	16.508	75		
CIE	Between Groups	5.212	6	3.173	.008
	Within Groups	19.166	70		
	Total	24.378	76		
CAI	Between Groups	5.067	6	2.315	.042
	Within Groups	25.902	71		
	Total	30.969	77		

Table 13a: TETS' LLLC in regard of age group

Competence	Age groups	N	Mean	S.D.	Rank	*p*	Explanation
SMC	20-29 years old	32	4.02	.535	2	.405	p>0.05 Insignificant
	30-39 years old	36	4.15	.368	1		
	40 years old-above	8	3.96	.537	3		
CLHL	20-29 years old	33	3.95	.475	2	.05	p<0.05 Significant
	30-39 years old	34	4.08	.360	1		
	40 years old-above	9	3.66	.678	3		
CIE	20-29 years old	33	3.89	.543	2	.048	p<0.05 Significant
	30-39 years old	34	4.12	.431	1		
	40 years old-above	10	3.66	.874	3		
CAI	20-29 years old	32	4.20	.546	2	.007	p<0.05 Significant
	30-39 years old	35	4.29	.510	1		
	40 years old-above	11	3.62	.948	3		
DC	20-29 years old	31	4.39	.668	2	.098	p>0.05 Insignificant
	30-39 years old	34	4.47	.637	1		
	40 years old-above	11	3.96	.740	3		
CDM	20-29 years old	31	3.75	.615	3	.154	p>0.05 Insignificant
	30-39 years old	34	3.84	.709	2		
	40 years old-above	11	4.20	.640	1		
Total LLLC	20-29 years old	29	4.04	.507	2	.553	p>0.05 Insignificant
	30-39 years old	31	4.15	.387	1		
	40 years old-above	7	3.99	.491	3		

Table 13b: Significant difference of TETS' LLLC in regard of age

Dimension		Sum of Squares	*df*	F	*p*
CLHL	Between Groups	1.299	2	3.118	.050
	Within Groups	15.209	73		
	Total	16.508	75		
CIE	Between Groups	1.92	2	3.163	.048
	Within Groups	22.458	74		
	Total	24.378	76		
CAI	Between Groups	3.849	2	5.321	.007
	Within Groups	27.12	75		
	Total	30.969	77		

APPENDIX II

1. Questionnaire (in English)

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

ROYAL UNIVERSITY OF PHNOM PENH

QUESTIONNAIRE

Dear Participants,

I am Huoy Balin, a former teaching staff at Institute of Technology of Cambodia (ITC). Now I am doing my Master's Degree at Royal University of Phnom Penh (RUPP). The topic of my thesis is "Lifelong Learning Competence of Technical Engineering Teaching Staff and System Support for the Promotion of T3L (Teachers as Lifelong Learners) Culture at ITC". The purpose of the study is to find out current lifelong learning competence among teaching staff of ITC based on educational qualification, the different competency level in regard of genders, departments, and age groups; it also further views ITC support on T3L culture. For this reason, I would like to have your participation in filling this questionnaire. Your frank response is highly appreciated and considered. Please note that all of your answers will surely be kept confidential.

Should you have any question, please feel free to contact via phone number: 017 44 15 88.

Truly yours,

Balin

PART ONE

Participant's Background Information

Please circle the following information about yourself.

1. Gender:
   a. Male b. Female
2. Age:
   a. 20-29 years old
   b. 30-39 years old
   c. 40 years old and above
3. Department you are in:
   a. GCA (Chemical Engineering and Food Technology)
   b. GCI (Civil Engineering)
   c. GEE (Electrical and Energy Engineering)
   d. GGG (Geo-Resources and Geotechnical Engineering)
   e. GIC (Information and Communication Engineering)
   f. GIM (Industrial and Mechanical Engineering)
   g. GRU (Rural Engineering)

4. The highest degree you are holding:
   a. Bachelor's b. Master's c. PhD

PART TWO

LLLC and T3L Support: Please circle one of the options 1, 2, 3, 4, or 5.

NOTE:

1 = Very Poor 2 = Poor 3 = Fair

4 = Strong 5 = Very Strong

(*** CAN = the ability to do something ***)

No	Items	Rank				
		1	**2**	**3**	**4**	**5**
	Self-management Competencies					
5.	I can make decision for career development.	1	2	3	4	5
6.	I am aware of lacks in the process of my own development.	1	2	3	4	5
7.	I can evaluate my learning process.	1	2	3	4	5
8.	I can work cooperatively with colleagues.	1	2	3	4	5
9.	I can lead group activities in my career field.	1	2	3	4	5
10.	I know how to motivate myself in career development.	1	2	3	4	5
11.	I constantly motivation myself in learning a new subject.	1	2	3	4	5
12.	I take my responsibility in team work.	1	2	3	4	5
13.	I actively participate all activities in any field.	1	2	3	4	5
14.	I present creative ideas upon encountering problems at work.	1	2	3	4	5
15.	I can adjust easily to new opinions in career.	1	2	3	4	5
16.	I can conduct projects on career development.	1	2	3	4	5
17.	I constantly study new subjects that I am studying.	1	2	3	4	5

	Competencies of Learning How to Learn					
18.	I can determine the available opportunities for career development.	1	2	3	4	5
19.	I can follow the programs of all learning activities, related to my field of career.	1	2	3	4	5
20.	I can ask questions without hesitation in the process of learning.	1	2	3	4	5
21.	I am curious on any subject in my field of career.	1	2	3	4	5
22.	I can form concept maps* in acquiring knowledge on the subject I am interested in. (**tool to organize & structure; it represents ideas & information as boxes/circles which connect with label in hierarchical structure*)	1	2	3	4	5
23.	I can choose the significant points on a subject I am learning.	1	2	3	4	5
24.	I can choose documents that contribute to the career development.	1	2	3	4	5
25.	I can choose materials that facilitate learning.	1	2	3	4	5
26.	I can concentrate on the new information in the learning process.	1	2	3	4	5
27.	I can be aware of the problems I encounter in the process of learning.	1	2	3	4	5
28.	I can use language effectively in the process of learning.	1	2	3	4	5

29.	I can form empathy in the process of learning.	1	2	3	4	5
	Competencies of Initiative and Entrepreneurship					
30.	I can make decision on any issue.	1	2	3	4	5
31.	I can adjust to information change in my field of career.	1	2	3	4	5
32.	I can put the created opinions into action at work.	1	2	3	4	5
33.	I can notice information I need in my career field.	1	2	3	4	5
34.	I can direct myself to achieve the targets.	1	2	3	4	5
35.	I can choose the best learning environment to reach the targets.	1	2	3	4	5
36.	I can listen attentively what is said in the professional development activities.	1	2	3	4	5
37.	I can transfer the knowledge that I continuously learn into daily life.	1	2	3	4	5
38.	I am always eager in learning new things about career.	1	2	3	4	5
39.	I can suggest solutions for any problems in the field of my career.	1	2	3	4	5
	Competencies on Acquiring Information					
40.	I can form good relations in the process of acquiring information.	1	2	3	4	5
41.	I can express opinions easily on any issue.	1	2	3	4	5
42.	I can facilitate transition of information via email.	1	2	3	4	5
43.	I can access to information on internet through search engines such as Google, Bing, Yahoo!.	1	2	3	4	5

44.	I can utilize mobile phones in accessing to new information.	1	2	3	4	5
45.	I can benefit from social utility websites such as Facebook, Twitter in the process of gathering information.	1	2	3	4	5
	Digital Competencies					
46.	I can save data in computer.	1	2	3	4	5
47.	I can use internet.	1	2	3	4	5
48.	I can benefit from online internet tools such as online journals, newspaper, videos.	1	2	3	4	5
49.	I can benefit from online news-group (e.g. news, rec, soc, sci, comp).	1	2	3	4	5
50.	I can use chat-programs such as Chat, WeChat, Viber, Line, WhatsApp, Skype, or others.	1	2	3	4	5
51.	I can facilitate sharing information on internet with colleagues.	1	2	3	4	5
	Competencies of Decision-Making					
52.	I can pre-plan each stage to reach targets in career development process.	1	2	3	4	5
53.	I can solve problem that hinder promotion in my career field.	1	2	3	4	5
54.	I can predict the risks I can encounter at work.	1	2	3	4	5
55.	I can guess how much time is required in learning a new subject.	1	2	3	4	5

System Supports of ITC (Institute of Technology of Cambodia)						
a. Make Learning a Priority						
56.	ITC helps me establish plans for learning/development.	1	2	3	4	5
57.	ITC identifies and develops expertise.	1	2	3	4	5
58.	ITC creates linkages between teaching staff.	1	2	3	4	5
59.	ITC provides necessary resources and conditions.	1	2	3	4	5
b. Address Barriers						
60.	ITC identifies competing forces.	1	2	3	4	5
61.	ITC provides local learning opportunities by utilizing local expertise.	1	2	3	4	5
62.	ITC provides local learning opportunities by designing high-quality learning opportunities with follow-up.	1	2	3	4	5
63.	ITC provides time for learning during the school day as an activity that is a standard part of daily professional practice.	1	2	3	4	5
64.	ITC provides time for learning during the school day as a continued and connected experience spanning a professional career.	1	2	3	4	5

~This is the end of the questionnaire. Thank you very much for your frank answers.~

2. Questionnaire (in Khmer)

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
ROYAL UNIVERSITY OF PHNOM PENH

កម្រងសំណួរ

ជូនចំពោះអ្នកចូលរួមបំពេញកម្រងសំណួរ

នាងខ្ញុំ ហួយ បាលីន ជាអតីតគ្រូបង្រៀននៅវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា (ITC)។ បច្ចុប្បន្ននាងខ្ញុំកំពុងបន្តការសិក្សានៅសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ (RUPP) ថ្នាក់អនុបណ្ឌិត ផ្នែកអប់រំ ជំនាញ ការសិក្សាពេញមួយជីវិត។ ប្រធានបទនៃការសិក្សាស្រាវជ្រាវជានិក្ខេបបទរបស់ខ្ញុំគឺ***សមត្ថភាពជំនាញការសិក្សាពេញមួយជីវិតរបស់បុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជានិងប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌"គ្រូជាអ្នកសិក្សាពេញមួយជីវិត"***។ ការសិក្សាស្រាវជ្រាវនេះមិនអាចបញ្ចប់ដោយគ្មានការចូលរួមផ្តល់ទិន្នន័យពីលោក លោកស្រីឡើយ។

អាស្រ័យដូចបានជម្រាបជូនខាងលើសូមលោកលោកស្រីមេត្តាបំពេញកម្រងសំណួរនេះដោយអនុគ្រោះ។ នាងខ្ញុំសូមបញ្ជាក់ថារាល់ចម្លើយរបស់លោក លោកស្រីនឹងត្រូវបានរក្សាជាការសម្ងាត់។ ប្រសិនបើលោកអ្នកមានចម្ងល់ សូមទាក់ទងមកនាងខ្ញុំតាមរយៈទូរស័ព្ទលេខ ០១៧ ៤៤ ១៥ ៨៨។

សូមអរគុណ

ផ្នែកទី១

ព័ត៌មានអ្នកចូលរួមបំពេញកំរងសំនួរ៖
សូមជ្រើសរើសចំលើយខាងក្រោមដោយគួសរង្វង់។

១. ភេទ៖ ក. ប្រុស ខ. ស្រី

២. អាយុ៖ ក. ២០ ទៅ ២៩ ឆ្នាំ ខ. ៣០ ទៅ ៣៩ ឆ្នាំ
គ. ៤០ ឆ្នាំឡើងទៅ

៣. មកពីដេប៉ាតឺម៉ង់៖

ក. GCA (Chemical Engineering and Food Technology)

ខ. GCI (Civil Engineering)

គ. GEE (Electrical and Energy Engineering)

ឃ. GGG (Geo-Resources and Geotechnical Engineering)

ង. GIC (Information and Communication Engineering)

ច. GIM (Industrial and Mechanical Engineering)

ឆ. GRU (Rural Engineering)

៤. កំរិតវប្បធម៌៖ ក. បរិញ្ញាបត្រ ខ. អនុបណ្ឌិត គ. បណ្ឌិត

ផ្នែកទី២

សមត្ថភាពជំនាញការសិក្សាពេញមួយជីវិត និងប្រព័ន្ធគាំទ្រ៖
សូមជ្រើសរើសចម្លើយខាងក្រោមដោយគូសរង្វង់។

សំគាល់៖ **១ = ខ្សោយ ២ = ទាប ៣ = មធ្យម ៤ = បង្គួរ ៥ = ខ្លាំង**

(អាច = សមត្ថភាពក្នុងការធ្វើអ្វីមួយបាន)

		រង្វាយតំលៃ				
ល.រ	**អម្រួចសំណួរ**	**១**	**២**	**៣**	**៤**	**៥**
	សមត្ថភាពគ្រប់គ្រងរៀបចំខ្លួនឯង					
៥.	ខ្ញុំអាចធ្វើការសម្រេចចិត្តក្នុងការអភិវឌ្ឍវិជ្ជាជីវៈ។	១	២	៣	៤	៥
៦.	ខ្ញុំអាចដឹងពីការខ្វះខាតក្នុងដំណើរការនៃការអភិវឌ្ឍរបស់ខ្ញុំផ្ទាល់។	១	២	៣	៤	៥
៧.	ខ្ញុំអាចវាយតម្លៃដំណើរការនៃការសិក្សារបស់ខ្ញុំបាន។	១	២	៣	៤	៥
៨.	ខ្ញុំអាចសហការយ៉ាងជិតស្និទ្ធជាមួយនឹងសហការី។	១	២	៣	៤	៥
៩.	ខ្ញុំអាចដឹកនាំសកម្មភាពក្រុមនៅក្នុងវិស័យការងាររបស់ខ្ញុំ។	១	២	៣	៤	៥
១០.	ខ្ញុំដឹងពីរបៀបលើកទឹកចិត្តខ្លួនឯងក្នុងការអភិវឌ្ឍវិជ្ជាជីវៈ។	១	២	៣	៤	៥
១១.	ខ្ញុំតែងតែលើកទឹកចិត្តខ្លួនឯងជានិច្ចក្នុងការសិក្សាអ្វីមួយថ្មី។	១	២	៣	៤	៥
១២.	ខ្ញុំមានទំនួលខុសត្រូវក្នុងការធ្វើការងារជាក្រុម។	១	២	៣	៤	៥
១៣.	ខ្ញុំអាចចូលរួមយ៉ាងសកម្មនូវគ្រប់សកម្មភាពក្នុងគ្រប់វិស័យ។	១	២	៣	៤	៥
១៤.	ខ្ញុំអាចផ្តល់ជាគំនិតដោះស្រាយចំពោះបញ្ហាប្រឈមនៅកន្លែងធ្វើការ។	១	២	៣	៤	៥
១៥.	ខ្ញុំអាចសម្របខ្លួនយ៉ាងងាយស្រួលទៅនឹងគំនិតថ្មីក្នុងអាជីពការងារ។	១	២	៣	៤	៥

១៦.	ខ្ញុំអាចធ្វើគំរោង (projects) លើការអភិវឌ្ឍអាជីព។	១	២	៣	៤	៥
១៧.	ខ្ញុំតែងតែសិក្សាយ៉ាងខ្ជាប់ខ្ជួននូវអ្វីដែលខ្ញុំកំពុងសិក្សា។	១	២	៣	៤	៥
	សមត្ថភាពនៃការរៀនពីរបៀបរៀន					
១៨.	ខ្ញុំអាចកំណត់យកឱកាសដែលមានសម្រាប់ការអភិវឌ្ឍអាជីព។	១	២	៣	៤	៥
១៩.	ខ្ញុំអាចតាមទាន់រាល់សកម្មភាពសិក្សាដែលទាក់ទងទៅនឹងអាជីពការងារខ្ញុំ។	១	២	៣	៤	៥
២០.	ខ្ញុំអាចសួរសំណួរដោយគ្មានការស្ទាក់ស្ទើរក្នុងការសិក្សាពីអ្វីមួយ។	១	២	៣	៤	៥
២១.	ខ្ញុំតែងចង់ចេះចង់ដឹងពីអ្វីៗដែលមាននៅក្នុងវិស័យការងាររបស់ខ្ញុំ។	១	២	៣	៤	៥
២២.	ខ្ញុំអាចបង្កើតផែនទីគំនិតក្នុងការក្របយកចំនេះវិជ្ជាដែលខ្ញុំចាប់អារម្មណ៍។	១	២	៣	៤	៥
២៣.	ខ្ញុំអាចជ្រើសរើសយកចំណុចសំខាន់នៅក្នុងមុខវិជ្ជាដែលខ្ញុំកំពុងសិក្សា។	១	២	៣	៤	៥
២៤.	ខ្ញុំអាចជ្រើសរើសឯកសារដែលរួមចំណែកក្នុងការអភិវឌ្ឍអាជីពការងារ។	១	២	៣	៤	៥
២៥.	ខ្ញុំអាចជ្រើសរើសសម្ភារៈដែលជួយសម្រួលដល់ការសិក្សារបស់ខ្ញុំ។	១	២	៣	៤	៥
២៦.	ខ្ញុំអាចផ្ទង់អារម្មណ៍សិក្សាអ្វីដែលថ្មី។	១	២	៣	៤	៥
២៧.	ខ្ញុំអាចដឹងពីបញ្ហាដែលនឹងអាចជួបប្រទះក្នុងពេលសិក្សា។	១	២	៣	៤	៥
២៨.	ខ្ញុំអាចប្រើប្រាស់ភាសាយ៉ាងមានប្រសិទ្ធិភាពក្នុងការសិក្សា។	១	២	៣	៤	៥
២៩.	ខ្ញុំអាចយល់ពីទម្រង់បែបបទនៃការសិក្សា។	១	២	៣	៤	៥

	សមត្ថភាពផ្តួចផ្តើមគំនិត និងភាពជាសហគ្រិន					
៣០.	ខ្ញុំអាចសម្រេចចិត្តចំពោះរាល់បញ្ហា។	១	២	៣	៤	៥
៣១.	ខ្ញុំអាចកែតម្រូវតាមការផ្លាស់ប្តូរព័ត៌មាននៅក្នុងអាជីពការងាររបស់ខ្ញុំ។	១	២	៣	៤	៥
៣២.	ខ្ញុំអាចយកគំនិតដែលមានស្រាប់មកដាក់ចេញជាសកម្មភាព។	១	២	៣	៤	៥
៣៣.	ខ្ញុំអាចសម្គាល់ព័ត៌មានដែលខ្ញុំត្រូវការក្នុងវិស័យការងាររបស់ខ្ញុំ។	១	២	៣	៤	៥
៣៤.	ខ្ញុំអាចតម្រង់ទិសខ្លួនឯងឆ្ពោះទៅកាន់ការសម្រេចគោលដៅ។	១	២	៣	៤	៥
៣៥.	ខ្ញុំអាចជ្រើសរើសបរិយាកាសដែលល្អបំផុតសំរាប់សិក្សាដើម្បីសម្រេចគោលដៅ។	១	២	៣	៤	៥
៣៦.	ខ្ញុំអាចស្តាប់យ៉ាងយកចិត្តទុកដាក់រាល់អ្វីដែលបានលើកឡើងក្នុងសកម្មភាពអភិវឌ្ឍអាជីពការងារ។	១	២	៣	៤	៥
៣៧.	ខ្ញុំអាចយកចំណេះដឹងដែលបាននិងកំពុងរៀនទៅប្រើប្រាស់ក្នុងជីវភាពរស់នៅប្រចាំថ្ងៃ។	១	២	៣	៤	៥
៣៨.	ខ្ញុំតែងតែចង់រៀនអ្វីថ្មីៗទាក់ទងនឹងអាជីពការងារ។	១	២	៣	៤	៥
៣៩.	ខ្ញុំអាចលើកជាដំណោះស្រាយចំពោះរាល់បញ្ហានៅក្នុងវិស័យការងារ។	១	២	៣	៤	៥
	សមត្ថភាពទទួលបានព័ត៌មាន					
៤០.	ខ្ញុំអាចបង្កើតទំនាក់ទំនងល្អក្នុងដំណើរការនៃការទទួលយកព័ត៌មាន។	១	២	៣	៤	៥
៤១.	ខ្ញុំអាចបង្ហាញគំនិតយោបល់បានយ៉ាងងាយស្រួលចំពោះ	១	២	៣	៤	៥

	បញ្ហានានា។					
៤២.	ខ្ញុំអាចបញ្ជូនព័ត៌មានតាមរយៈ email។	១	២	៣	៤	៥
៤៣.	ខ្ញុំអាចទទួលពត៌មានបានពីប្រព័ន្ធ Internet តាមរយៈ Search Engines ដូចជា Google, Bing, Yahoo ជាដើម។	១	២	៣	៤	៥
៤៤.	ខ្ញុំអាចប្រើប្រាស់ទូរស័ព្ទចល័តដើម្បីទទួលយកព័ត៌មានថ្មីៗ។	១	២	៣	៤	៥
៤៥.	ខ្ញុំអាចទទួលប្រយោជន៍ពីការប្រើប្រព័ន្ធផ្សព្វផ្សាយសង្គមដូចជា Facebook, Twitter ក្នុងការប្រមូលពត៌មាន។	១	២	៣	៤	៥
	សមត្ថភាព Digital					
៤៦.	ខ្ញុំអាចរក្សាទុក(save)ទិន្នន័យក្នុងប្រព័ន្ធកុំព្យូទ័រ។	១	២	៣	៤	៥
៤៧.	ខ្ញុំអាចប្រើប្រាស់ប្រព័ន្ធ Internet បាន។	១	២	៣	៤	៥
៤៨.	ខ្ញុំអាចទទួលប្រយោជន៍ពី Online internet tools ដូចជា Online journals, Newspaper, Videos ជាដើម។	១	២	៣	៤	៥
៤៩.	ខ្ញុំអាចទទួលប្រយោជន៍ពី Online news-group (ឧ៖ news, rec, soc, sci, comp)។	១	២	៣	៤	៥
៥០.	ខ្ញុំអាចប្រើ Chat-programs ដូចជា Chat, WeChat, Viber, Line, WhatsApp, Skype ឬ កម្មវិធីផ្សេងៗទៀត។	១	២	៣	៤	៥
៥១.	ខ្ញុំអាចចែករំលែកព័ត៌មានជាមួយសហការីលើប្រព័ន្ធ Internet ។	១	២	៣	៤	៥
	សមត្ថភាពក្នុងការសម្រេចចិត្ត					
៥២.	ខ្ញុំអាចរៀបគម្រោងទុកជាមុនសម្រាប់ដំណាក់ការនីមួយៗ ឈានទៅរកគោលដៅក្នុងដំណើរការអភិវឌ្ឍអាជីព។	១	២	៣	៤	៥
៥៣.	ខ្ញុំអាចដោះស្រាយបញ្ហាដែលរារាំងការឡើងឋានន្តរស័ក្តិក្នុងវិស័យការងារ។	១	២	៣	៤	៥

៥៤.	ខ្ញុំអាចដឹងមុននូវហានិភ័យដែលខ្ញុំអាចនឹងជួបប្រទះនៅកន្លែងធ្វើការ។	១	២	៣	៤	៥
៥៥.	ខ្ញុំអាចដឹងថាតើត្រូវចំណាយពេលវេលាច្រើនប៉ុន្មានដើម្បីរៀនអ្វីមួយថ្មី។	១	២	៣	៤	៥

ប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថាន (ITC: Institute of Technology of Cambodia)

ក. ការដាក់ការសិក្សាជាអទិភាព

៥៦.	ITC ជួយខ្ញុំក្នុងការបង្កើតផែនការសិក្សា ឬ អភិវឌ្ឍសមត្ថភាព។	១	២	៣	៤	៥
៥៧.	ITC កត់សំគាល់ និងអភិវឌ្ឍអ្នកជំនាញ។	១	២	៣	៤	៥
៥៨.	ITC បង្កើតការផ្សារភ្ជាប់ទំនាក់ទំនងរវាងបុគ្គលិកបង្រៀន។	១	២	៣	៤	៥
៥៩.	ITC ផ្តល់ធនធាន និងលក្ខខណ្ឌចាំបាច់សម្រាប់ការអភិវឌ្ឍ។	១	២	៣	៤	៥

ខ. ដំណោះស្រាយបញ្ហារារាំង

៦០.	ITC ដឹងពីកម្លាំងប្រកួតប្រជែង។	១	២	៣	៤	៥
៦១.	ITC ផ្តល់ឱកាសសិក្សាក្នុងស្រុកដោយប្រើប្រាស់អ្នកជំនាញក្នុងស្រុក។	១	២	៣	៤	៥
៦២.	ITC ផ្តល់ឱកាសសិក្សាក្នុងស្រុកជាបន្តបន្ទាប់ដោយបានរៀបចំប្រកបដោយគុណភាពខ្ពស់។	១	២	៣	៤	៥
៦៣.	ITC ផ្តល់ពេលវេលាសិក្សាក្នុងកំឡុងពេលម៉ោងធ្វើការជាសកម្មភាពដែលមានលក្ខណៈស្តង់ដានៃការអនុវត្តវិជ្ជាជីវៈប្រចាំថ្ងៃ។	១	២	៣	៤	៥

៦៤.	ITC ផ្តល់ពេលវេលាឱ្យសិក្សាក្នុងកំឡុងពេលម៉ោងធ្វើការ ជាបន្តបន្ទាប់ដែលផ្សារភ្ជាប់ទៅនឹងបទពិសោធន៍ដែលមានវិសាលភាពលើវិជ្ជាជីវៈ។	១	២	៣		៥

សូមអរគុណចំពោះការចំណេញក្រមុំសំណួរពីសំណាក់អស់លោកអ្នក។

APPENDIX III

1. **Request letter to ITC director from researcher**

ព្រះរាជាណាចក្រ កម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

លិខិតស្នើសុំ

គោរពជូន៖ **ឯកឧត្តម បណ្ឌិត អ៊ុម រម្យណី** នាយកវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា

កម្មវត្ថុ៖ ស្នើសុំការអនុញ្ញាតប្រមូលទិន្នន័យសម្រាប់ការសិក្សាស្រាវជ្រាវលើប្រធានបទ **សមត្ថភាពចំណាយការសិក្សាពេញមួយជីវិតរបស់បុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា និងប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌ "គ្រូជាអ្នកសិក្សាពេញមួយជីវិត"**

ភ្ជាប់ជូន៖ ១. លិខិតស្នើសុំចេញដោយសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
២. កម្រងសំណួរ

យោងតាមកម្មវត្ថុខាងលើព្រមទាំងឯកសារភ្ជាប់ជូនសូមលោកនាយកមេត្តាជ្រាបជាព័ត៌មាន និង សូមសម្រួលដល់ការប្រមូលទិន្នន័យនេះដោយអនុគ្រោះ។

សូមទទួលការគោរពដ៏ខ្ពង់ខ្ពស់ពីនាងខ្ញុំ

រាជធានីភ្នំពេញ ថ្ងៃទី១១ ខែតុលា ឆ្នាំ២០១៦
ហត្ថលេខា

ហួយ បាលីន
huoybalin@ymail.com

2. Request letter to ITC director from RUPP vice rector

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
លេខ: ១៤៤៩/...សកភព ២០១៦

សូមគោរពជូន
ឯកឧត្តមបណ្ឌិត អ៊ុម រស្សី នាយកវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា

កម្មវត្ថុ: សំណើសុំជួយសម្រួលការស្រាវជ្រាវរបស់និស្សិតឈ្មោះ **ហួយ បាលីន** នៅវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា។

តាមកម្មវត្ថុខាងលើ ខ្ញុំបាទសូមជម្រាបជូន **ឯកឧត្តម** មេត្តាជ្រាបថា៖ កញ្ញា **ហួយ បាលីន** ជានិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ជំនាន់ទី៩នៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ។ កញ្ញាមានគម្រោងចុះស្រាវជ្រាវលើប្រធានបទ **"សមត្ថភាពជំនាញការសិក្សាពេលមួយជីវិតរបស់បុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា និងប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌គ្រូជាអ្នកសិក្សាពេញមួយជីវិត"** ដើម្បីសរសេរនិក្ខេបបទបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ។ គោលបំណងនៃការចុះស្រាវជ្រាវនេះ គឺដើម្បីប្រមូលទិន្នន័យសំខាន់ៗដែលទាក់ទងនឹងប្រធានបទខាងលើ។ ការសិក្សាស្រាវជ្រាវមានរយៈពេលពីរខែកន្លះ ដោយគិតចាប់ពីថ្ងៃទី១៧ ខែតុលា រហូតដល់ ថ្ងៃទី៣០ ខែធ្នូ ឆ្នាំ២០១៦។

អាស្រ័យហេតុនេះ សូម **ឯកឧត្តម** ជ្រាបជាព័ត៌មាន និងជួយសម្រួលជូន កញ្ញា **ហួយ បាលីន** បានធ្វើការសិក្សាស្រាវជ្រាវដោយក្តីអនុគ្រោះ។

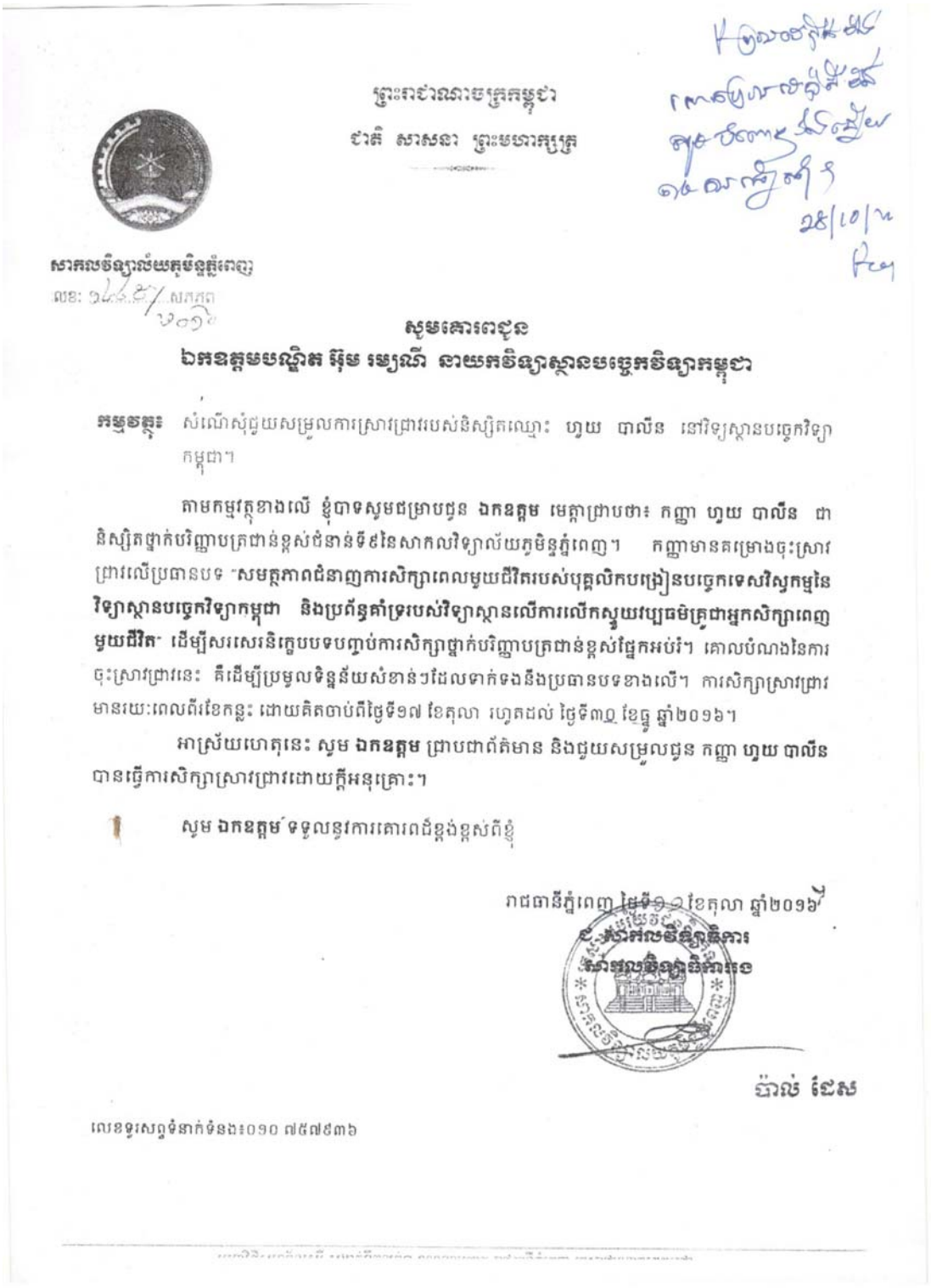
សូម **ឯកឧត្តម** ទទួលនូវការគោរពដ៏ខ្ពង់ខ្ពស់ពីខ្ញុំ

រាជធានីភ្នំពេញ ថ្ងៃទី១៤ ខែតុលា ឆ្នាំ២០១៦
ជំ.វ. សាកលវិទ្យាធិការ
សាកលវិទ្យាធិការទ

ប៉ាល់ ដែស

លេខទូរសព្ទទំនាក់ទំនង៖ ០១០ ៧៥៧៩៣៦

3. Approval for collecting data from ITC director



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ
លេខ: ១៨៤៩/សភព
២០១៦

សូមគោរពជូន
ឯកឧត្តមបណ្ឌិត អ៊ុម រម្សុី នាយកវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា

កម្មវត្ថុ: សំណើសុំជួយសម្រួលការស្រាវជ្រាវរបស់និស្សិតឈ្មោះ ហួយ បាលីន នៅវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា។

តាមកម្មវត្ថុខាងលើ ខ្ញុំបាទសូមជម្រាបជូន **ឯកឧត្តម** មេត្តាជ្រាបថា: កញ្ញា **ហួយ បាលីន** ជានិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ចំនាន់ទី៩នៃសាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ។ កញ្ញាមានគម្រោងចុះស្រាវជ្រាវលើប្រធានបទ "**សមត្ថភាពជំនាញការសិក្សាពេលមួយជីវិតរបស់បុគ្គលិកបង្រៀនបច្ចេកទេសវិស្វកម្មនៃវិទ្យាស្ថានបច្ចេកវិទ្យាកម្ពុជា និងប្រព័ន្ធគាំទ្ររបស់វិទ្យាស្ថានលើការលើកស្ទួយវប្បធម៌គ្រូជាអ្នកសិក្សាពេញមួយជីវិត**" ដើម្បីសរសេរនិក្ខេបបទបញ្ចប់ការសិក្សាថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ផ្នែកអប់រំ។ គោលបំណងនៃការចុះស្រាវជ្រាវនេះ គឺដើម្បីប្រមូលទិន្នន័យសំខាន់ៗដែលទាក់ទងនឹងប្រធានបទខាងលើ។ ការសិក្សាស្រាវជ្រាវមានរយៈពេលពីរខែកន្លះ ដោយគិតចាប់ពីថ្ងៃទី១៧ ខែតុលា រហូតដល់ ថ្ងៃទី៣០ ខែធ្នូ ឆ្នាំ២០១៦។

អាស្រ័យហេតុនេះ **សូម ឯកឧត្តម** ជ្រាបជាព័ត៌មាន និងជួយសម្រួលជូន កញ្ញា **ហួយ បាលីន** បានធ្វើការសិក្សាស្រាវជ្រាវដោយក្តីអនុគ្រោះ។

សូម ឯកឧត្តម ទទួលនូវការគោរពដ៏ខ្ពង់ខ្ពស់ពីខ្ញុំ

រាជធានីភ្នំពេញ ថ្ងៃទី១៤ ខែតុលា ឆ្នាំ២០១៦
ជំ.វ.ការិយាធិការ
សាកលវិទ្យាធិការរង

ប៉ាល់ ដែស

លេខទូរស័ព្ទទំនាក់ទំនង:០១០ ៧៥៧៩៣៦