



# ICER 2014

The 7<sup>th</sup> International Conference  
on Educational Research:

ICER 2014 *Challenging Education for Future Change*



# 13 - 14

## September 2014

Faculty of Education, Khon Kaen University, Thailand





## PROCEEDINGS

### *The 7<sup>th</sup> International Conference on Educational Research: Challenging Education for Future Change*

#### Peer Review Committee:

Prof. Masami Isoda	<i>University of Tsukuba, Japan</i>
Prof. Patsy Wang-Iverson	<i>Gabriella and Paul Rosenbaum Foundation, USA</i>
Prof. Shizumi Shimizu	<i>Teikyo University, Japan</i>
Prof. Yeap Ban Har	<i>Marshall Cavendish Institute, Singapore</i>
Prof. Yutaka Ohara	<i>Kanto-gakuin University, Japan</i>
Asst. Prof. Dr. Maitree Inprasitha	<i>Khon Kaen University</i>
Assoc. Prof. Dr. Unchalee Sarnrattana	<i>Khon Kaen University</i>
Assoc. Prof. Dr. Kanokorn Somprach	<i>Khon Kaen University</i>
Assoc. Prof. Dr. Kongsak Thathong	<i>Khon Kaen University</i>
Assoc. Prof. Dr. Mongkon Donkwa	<i>Khon Kaen University</i>
Assoc. Prof. Dr. Sumalee Chaijaroen	<i>Khon Kaen University</i>
Assoc. Prof. Auijit Pattanajak	<i>Khon Kaen University</i>
Assoc. Prof. Ladda Silanoi	<i>Khon Kaen University</i>
Assoc. Prof. Nilmanee Pitak	<i>Khon Kaen University</i>
Assoc. Prof. Prapaporn Sritrakul	<i>Khon Kaen University</i>
Assoc. Prof. Wimol Sumaranwanich	<i>Khon Kaen University</i>
Asst. Prof. Dr. Chokchai Yuenyong	<i>Khon Kaen University</i>
Asst. Prof. Dr. Niwat Srisawasdi	<i>Khon Kaen University</i>
Asst. Prof. Dr. Sarintip Raksasataya	<i>Khon Kaen University</i>
Asst. Prof. Dr. Sitthipon Art-In	<i>Khon Kaen University</i>
Asst. Prof. Dr. Sumonchat Jaroenkornburi	<i>Khon Kaen University</i>
Dr. Channarong Hiengraj	<i>Khon Kaen University</i>
Dr. Jiradawan Huntula	<i>Khon Kaen University</i>
Dr. Nuchwana Luangangoon	<i>Khon Kaen University</i>
Dr. Parichart Saenna	<i>Khon Kaen University</i>
Dr. Phongthanat Sae-joo	<i>Khon Kaen University</i>
Dr. Roderick Julian Robillos	<i>Khon Kaen University</i>
Dr. Romklao Artdej	<i>Khon Kaen University</i>
Dr. Sampan Thinwiangthong	<i>Khon Kaen University</i>
Mr. Blair Alton McIntosh	<i>Khon Kaen University</i>
Mr. Ong-art Namwong	<i>Khon Kaen University</i>
Miss Phatchara Phantharakphong	<i>Khon Kaen University</i>

#### Editorial Staff:

Dr. Ariyaporn Kuroda  
Asst. Prof. Dr. Prin Thananchaibutr  
Asst. Prof. Pattamaporn Thananchaibutr  
Asst. Prof. On-anong Rittruechai  
Dr. Siribhong Biasiri  
Mr. Jakkrapong Thongpai  
Ms. Chudapa Maletippawan Klangsaeng

**Published** 1,000 copies (CD-ROM)

**ISBN:** 978-616-223-442-2

Anna Offset, Khon Kaen, THAILAND

**Copyright** ©2014 by the Faculty of Education, Khon Kaen University

#### National Library of Thailand Cataloging in Publication Data

Khon Kaen University. Faculty of Education.

Proceedings: ICER 2014 (The 7<sup>th</sup> International Conference on Educational Research: Challenging Education for Future Change).-- Khon Kaen : Faculty of Education. Khon Kaen University, 2014.

1160 p.

1. Education--Research. 2. Educational change. I. Title.

ISBN 978-616-223-442-2

## Message from the Host *Khon Kaen University (KKU)*



Greeting to all participants and welcome to Khon Kaen University

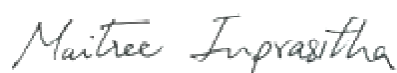
The International Conference on Educational Research (ICER) 2014: *Challenging Education for Future Change* is the 7<sup>th</sup> annual conference to celebrate the 46<sup>th</sup> anniversary of the establishment of Faculty of Education, KCU. The ICER 2014 is jointly organized by **Khon Kaen University** of Thailand, the **Hong Kong Institute of Education** of China, **Thailand Education Deans Council**, and the **Consortium of Sixteen Education Deans** of Thailand (Group 16). This year we are pleased to have the **State University of Surabaya** of Indonesia and **Mindanao State University-Iligan Institute of Technology** of Philippines to join co-hosting the conference as our new university partners. As a result, we have almost a hundred of presenters from Indonesia and Philippines.

The goals of this conference are to give international educators the opportunity to share ideas and form networks while working together on challenging education for future change. It is anticipated that the exchange of ideas and research findings will contribute greatly to future generations.

During the ICER 2014 event, the APEC-Khon Kaen International Symposium 2014 with its theme “*Emergency Preparedness Education: Learning from Experience, Science of Disasters, and Preparing for the Future*” is also held at the Faculty of Education, Khon Kaen University starting from September 13 to September 16, 2014. So the two events will share the plenary sessions during the first two days of APEC symposium.

On behalf of the Faculty of Education, KCU, I would like to express my gratitude and my sincere appreciation to our co-host institutions, the guest speakers and the organizing committees for their efforts. I also would like to thank all delegations and participants who come from afar to join this event.

Together with the educational networks that are established, I am sure both the participants from overseas countries, as well as the Thailand Education Deans Council Meeting hosted by KCU on September 13<sup>th</sup>, will definitely highlight this international conference as a sign of KCU’s readiness for being a part of ASEAN Economic Community (AEC) in the coming year 2015 as well.



**(Assistant Professor Maitree Inprasitha, Ph.D.)**

Dean, Faculty of Education

Khon Kaen University

THAILAND

**Message from Co-host**  
***The Hong Kong Institute of Education***



The Faculty of Education and Human Development is young faculty that aspires to contribute in meaningful ways to education development in the Asia Pacific Region. It is an integral part of the The Hong Kong Institute of Education - a multidisciplinary education focussed institution with a strong research emphasis. The Institute has a growing international reputation for excellence in preparing globally aware professional educators, providing culturally enriched educational experiences, and producing research of distinction. Central to the Institute's values is a commitment to developing international and regional networks that will facilitate the integration of intercultural and global dimensions into its teaching, learning, and research.

At HKIED we particularly value collaborative research with international partners. We seek to understand better the contexts that influence people in the Asia Pacific region and to identify ways of improving social outcomes for all. We see international partnerships as important opportunities for enhancing the impact of our research.

HKIED is proud to join with KhonKaen University to co-host the 2014 International Conference on Educational Research.

A handwritten signature in black ink that reads "Allan".

**Professor Allan Walker**

Joseph Lau Chair Professor of International Educational Leadership  
Dean, Faculty of Education and Human Development  
The Hong Kong Institute of Education  
HONG KONG SAR  
People's Republic of China

**Message from Co-host**  
***Mindanao State University -Iligan Institute of Technology***



Greetings of peace and joy to everyone!

It is indeed an honor and a privilege for Mindanao State University- Iligan Institute of Technology (MSU-IIT) to partner with prestigious universities in the conduct of meaningful opportunities for the pursuit of education. Sharing research outputs is one significant step toward finding better solutions to teaching and learning problems which are widespread in many parts of the world, particularly Asia. Likewise, our active involvement in this endeavor is a significant leap that will help us face and address the challenges in education for future change, as the conference theme goes. Clearly, something has to be done. Crossing borders and benchmarking for a better delivery of education, especially in multicultural contexts, shall eventually necessitate exchange of knowledge and manpower. For these reasons, MSU-IIT signifies its steadfast intention to join with other countries and universities in the quest for an adaptive and relevant education in the spirit of collaboration, information-sharing, and cooperative learning.

The College of Education of MSU-IIT is awarded by the Commission on Higher Education (CHED) as Center of Excellence for Teacher Education and Phase 2 Level III Accreditation by the Accrediting Agency for Chartered Colleges and Universities in the Philippines (AACCUP). These recognitions were brought about by the competence of the graduates in the Licensure Examinations for Teachers, quality and relevant researches of students and faculty members, sustainable extension programs, and strong partnership and linkages with local and international organizations. However, with these achievements, the university is humbled to serve as an agent of educational change not just in the Philippines but also in other Asian countries. Co-hosting this conference, a manifestation of its commitment to the signed Memorandum of Understanding with Khon Kaen University, is a new milestone for MSU-IIT that brings about vast challenges and interesting promises.

With that, the university is looking forward to more opportunities of educational and research collaboration and purposeful exchange of ideas with other universities in fulfilling the goal of “Greater Heights through Internationalization.”



**Professor Esmar N. Sedurifa**  
Dean, College of Education  
Mindanao State University -Iligan Institute of Technology  
9200 Iligan City, Philippines P.O. Box No. 5644  
Tel./Fax (063) 223-2349 Local No. 4128  
<http://www.msuiit.edu.ph>

**Message from Co-host  
State University of Surabaya**



Welcome to the International Conference on Educational Research (ICER) 2014: Challenging Education for Future Change which will be held during September 13 - 14, 2014 in Faculty of Education Khon Kaen University.

Faculty of Education, State University of Surabaya is the institution which was founded in 1963 and focuses on developing science education and committed to develop partnerships with various international universities in the field of teaching, learning and research.

Implementation of this conference is very important in order to provide an opportunity for stakeholders to exchange experiences in the field of knowledge, the education practice and educational planning for improvement educational practice in the future.

Thank you to all ICER 2014 participants who have shared idea, knowledge and cooperation concern with a better world civilization through education.

Again, thank you to the Education Faculty Khon Kaen University in Thailand who have collaborated with the Education Faculty, State University of Surabaya, INDONESIA in establishing ICER 2014



**(I Nyoman Sudarka)**  
Dean  
Education Faculty  
State University of Surabaya  
INDONESIA

## Contents

	<i>Page</i>
Message from Khon Kaen University	1
Message from the Hong Kong Institute of Education	2
Message from Mindanao State University -Iligan Institute of Technology	3
Message from State University of Surabaya	4
 <b>Keynote Address:</b>	
Mudjito, AK	18
Indonesia Special Education Services (INA-SES): Current Issues and Initiatives	
Sukarno D. Tanggol	29
Regional Integration in a Multi-Ethnic, Multi-Lingual, and Multi-Religious Setting: Challenging Education for Future Change	
Tsui Kwok Tung	30
Curriculum leadership for curriculum change and sustainable development: what can we learn from the case of Hong Kong primary schools?"	
 <b>Oral Presentation:</b>	
<i>Oral Presenters: Theme 1: Teacher Education and Professional Development</i>	
Barquilla, M. B., et al	33
Transformation-Translation among Teacher Recipients of Skills for Success (SFS) Training Course of MSU-IIT	
Bernadeth T. Toca, et al	51
21st Century Skills Gained through Intel Teach Training among Bachelor of Elementary Education Students Major in Science and Health	
Christine Mae N. Franco, et al	52
Students' Stress and their Optimistic Attitude Coping Strategy	
Edna B. Nabua	53
Innovative Training Course for Non-Multiculturalist Chemistry Teachers: Translation-Transformation	
Khoirul Hasyim, , et al	65
Enhancing Students of Teacher Training College's Teaching Skills in Real Teaching Program by Using Peer Teaching	
Kongsak Thathong, , et al	75
The Outcome of Workshop on Construction and Implementation of Science Lesson Plans for Primary School Teachers : A Lesson Study	
Monera Salic-Hairulla, , et al	76
Preparedness of Pre-Service Teachers to Implement K-12 Curriculum	
Monono Hans Liteke	89
A Study on Collegiality among Foreign and Thai English Teachers in K- 12 Bilingual Schools in Thailand	
PhraKru Sutheevorasarn, , et al	100
The Try Out of Kalasin Buddhist Academic College Lecturers' Teaching and Learning Evaluation Online Form	
Rebecca S. Galela, et al	105
Parenting Style and Social Competence as Correlates to the Teaching Interest of Pre-Service Teachers	
Somnuek Phoesom, et al	115
Designing a Competency-Based Training Framework for Teachers' Vocational Education in the Motorcycle Service Course	
Wahyu Sukartiningsih	126
Effectiveness of Meaning Learning Model in Developing Moral Sensitiveness and Thinking Skills of Elementary School Students	
Yutaka OHARA	127
CSCL Perspective on Elementary School Teacher Training: Case of Clickers	



 ICER 2014

# Oral Presentation

Theme 1: Teacher Education and  
Professional Development



## Designing a Competency-Based Training Framework for Teachers' Vocational Education in the Motorcycle Service Course

Somnuek Phoosom<sup>1</sup> (*krukaex@hotmail.com*)

Weerayute Sudsomboon<sup>2</sup> (*weerayute\_sud@nstru.ac.th*)

Surawut Yanil<sup>3</sup> (*swut2000@hotmail.com*)

### Abstract

This paper presents a new learning environment through the competency-based training framework for teachers' vocational education at the Automotive Mechanics Program of Nakhon Si Thammarat Province. The design goals have acknowledged the distinct advantages to enhance learning outcomes that can be achieved as a result of widely utilized skills in the teaching of motorcycle service course. The CBTF model for this study is a systematic literature review. The research instrumentation has been involved developing the article journals relate fields and peer-reviewed protocol that includes five minor steps. Data analysis identified and 24 key papers were studies to develop a rubric to identify categories for a systematic literature review protocol. The expectation results with the design guidelines to providing conceptual framework of what is already known about competency-based training module to research design, teacher preparation, teacher learning environment support and assessment of student learning. Further development of the research is discussed.

*Keywords:* Competency-Based Training Framework, Conceptual Design, Learning Outcomes, Motorcycle Service Course, Teacher's Vocational Education

### Introduction

According to Maclean et al. (2013), have specially concerned with opportunity the challenges facing skills development is high on the sustainable growth agenda of developing Asian countries. Thailand is the one country which depended on their cheap labour and exports for economic growth are increasingly. The finding showed their growth is being limited by the deteriorating terms of trade and vulnerability. This was made promote by the recent global financial crisis and the ongoing economic recession in many advanced countries. The development of Technical and Vocational Education and Training (TVET) is strengthening as a current education to support the sustainable economic and social development (OECD, 2012).

With effective development, TVET is often used existing paradigms and develops new competency models and frameworks. Within the Office of Vocational Education

---

<sup>1</sup>Master Students, Faculty of Industrial Technology, Nakhon Si Thammarat Rajabhat University, Thailand

<sup>2</sup>Lecturer, Faculty of Industrial Technology, Nakhon Si Thammarat Rajabhat University, Thailand

<sup>3</sup>Lecturer, Department of Teacher Training in Mechanical Engineering, Faculty of Technology Education, King Mongkut's University of Technology North Bangkok, Thailand

Commission (VEC, 2014) report on Vocational Education, vocational is strongly concerned with “competency-based education” and providing teachers to employ “Competency-Based Training Framework: CBTF”. A key challenge have compelled the social demands and employers to look for workers’ who possess specialized knowledge, skills, and attitudes as a competency (ANTA, 2013). In fact, capable of adapting is to changing currents, trends, and issues. This development requires changes in the roles of teachers and learners in the instructional process. As teachers move away from the traditional teaching “learning by teachers-centered” model to become stakeholders (e.g., entrepreneurs, career experts, administrators, teachers) as a competency-based education (NCVER, 2003; NCVER 2012), learning approaches in the training programmes need to enhance more student-centered, active and exploratory (Hilferty, 2008).

However, in Thailand the paradigm shift from “teachers-centered” model to competency-based education approach has had not implications in vocational areas in term of pedagogy, assessment and curriculum. These consequences are particularly related to develop the Competency-Based Training Framework (CBTF) of stakeholders by containing class layers (public and private schools) and social groupings (community and rural settings). CBTF has been adopted as socio-economic strategic planning to restructure their TVET systems and develop competitive advantages required in the social demands (Brockmann, et al., 2008, NCVER 2012). The main develops in implementing this CBTF have been to reduce unemployment rate, increase productivity and to achieve national/international competitiveness (Arguelles and Gonczi, 2000; Callan and Ashworth, 2004; Sudsomboon, 2013).

Recently, the competency research in development countries such as the United States of America (USA), the United Kingdom (UK), Australia and the Netherlands (NCVER 2003; NCVER 2012; Biemans et al., 2004) have had several decades of experience in the implementation of CBTF in their TVET systems. Australia for instance, had to enhance the TVET promote skills of its workforce in order to undertake industrial restructuring and remain competitive with the other OECD countries (Keating, 2008). Similarly, in the UK the changing nature of work and the higher skills requirements necessitated for national skills standards in order to ensure labour mobility (Maclean et al., 2013).

Furthermore, CBT is an outcome-based approach and considered as a major driver and motivator of the learning perspective in which the role of the individual is rated higher than that of the teachers, government or other stakeholders (VEC, 2014). Therefore, CBTF has both a didactical dimension (competences and qualifications) and the social demands (career professional and warranty opportunities) (Hellwig, 2006). In Nakhon Si Thammarat Province, the researchers is studied serve as a CBTF demand for the significance and impact of automotive mechanics areas and the need for more reflection views with the experts’ interview as a preliminarily data: data show that CBTF on automotive areas for community and rural settings is the motorcycle service course to represented for the ones persisting. The motorcycle service course presented authenticity demand-driven in Nakhon Si Thammarat Province as taking place that the learner-perceived relations between

the practices. They can be carrying out and the use of community employments need of these practices.

These features were selected because they are closely linked to the development of community and rural professional competencies and entrepreneurial skills for community and rural performance. This paper presents a new learning environment through the competency-based training framework for teachers' vocational education at the Automotive Mechanics Program of Nakhon Si Thammarat Province.

## Theoretical Backgrounds

### Why must be the CBTF?

The CBTF are regarded as suitable alternative to the TVET reforms of training for several obtains in term of social demands. In CBTF, training is divided into *learnable units or elements of competence* targeted towards specific skill development underlying entrepreneurs need. Traditional training is often generic, and not so much focused on bridging specific skill gaps and lack of teaching with text book, and practice in the not just-in-time technologies (Biemans et al., 2004; Boahin & Adriann Hofman, 2014; Brockmann. et al., 2008; Casey, 1999; Hellwig, 2006; Hilferty, 2008; OECD, 2012; Maclean et al., 2013; Smith, 2010). Furthermore, CBTF training is flexible, not time-based and learning is student-centered, where learners progress through *learning modules* individually pace while the role of the teachers is that of a coach, mentor or facilitator (Kasipha, 2007). In the traditional programmes, training is centered on subject content-based, and the instruction is time-based and teacher-centered, where the role of the teacher is typically restricted to that of the expert, while class size is large and the teaching style is lecture-oriented.

### The Competitive advantage of CBTF

CBTF is taught in learning modules, performance-based, practically-oriented, and theory is taught mainly as underpinning knowledge usually at a workshop and workplace environment. Many traditional programmes merely focus on the acquisition of large amounts of knowledge, with a small emphasis on structured practical activities often performed simultaneously by all class members within a classroom setting (Hellwig, 2006; Hilferty, 2008; OECD, 2012; Maclean et al., 2013). Assessment in the traditional training is not assessment based on actual performance of written test and practical assignment and achievement is compared with other students taking the course (paper and example practice-referenced) (ANTA, 2003). In CBTF, assessment is synthesized towards clearly specified criteria or standards in the industry demands and the outcome of the training is measured against a single performance criterion (criterion-referenced) which can either be demonstrated as competent (pass) or not yet competent (fail).

In the traditional training, there is no structured earned credit system of recognition of prior learning (RPL) and that credit for prior learning is open to

interpretation considered (NCVER, 2003). In CBTF however, teachers who already possess special skills through previous formal training, work or life experience can receive credits for or exemption from modules which contain those specific competencies. CBTF is also customized to meet the skill development needs of an organization and its employees than the traditional training that is often generic in nature. In short, CBT allows for a more precise match between education/training and on-the-job needs (Callan & Ashworth, 2004).

## Methodology

### Design

The CBTF model for this study is a systematic literature review conducted by Automotive Mechanics Vocational Curriculum for VEC (2014), and the data analysis via article journals as relate fields (Biemans et al., 2004; Boahin & Adriann Hofman, 2014; Brockmann. et al., 2008; Casey, 1999; Hellwig, 2006; Hilferty, 2008; OECD, 2012; Maclean et al., 2013; Smith, 2010)

### Research Instrumentations and Data Collection

According to Creswell (2012), presents a systematic review is the employ element of research instrumentation, rather than the specific method used to aggregate and interpret data. In this study, the research instrumentation has been involved developing the article journals relate fields and peer-reviewed protocol that includes:

- 1) *Relevant research question* is conceptualized as developed in consultation with the design of CBTF process representation for motorcycle service course requires essential transformation in the process of TVET.
- 2) *Search strategy* is to find all the available article studies, including journals, grey literature, unpublished studies, and electronic data base via <http://www.sciencedirect.com>; <http://www.springer.com>; <http://www.journal.kmutnb.ac.th>; <http://journal.fte.kmutnb.ac.th/>.
- 3) *Inclusion and exclusion criteria* is to a set of select the technical vocational education and training studies for review through the keyword(s) (for example studies of competency-based training and training strategies).
- 4) *Quality appraisal strategy* is relevant to the literature reviews and the selects of studies under researchers' decision.
- 5) *Methods for synthesising the studies*, according to the type of data analysis.

### Data Analysis

Second search terms were identified and 24 key papers were studies to develop a rubric to identify categories for a systematic literature review protocol. Papers were classifiably within competency-based training and training strategies with motorcycle service area. Following the initial selection of literature reviews, the researchers have been done.

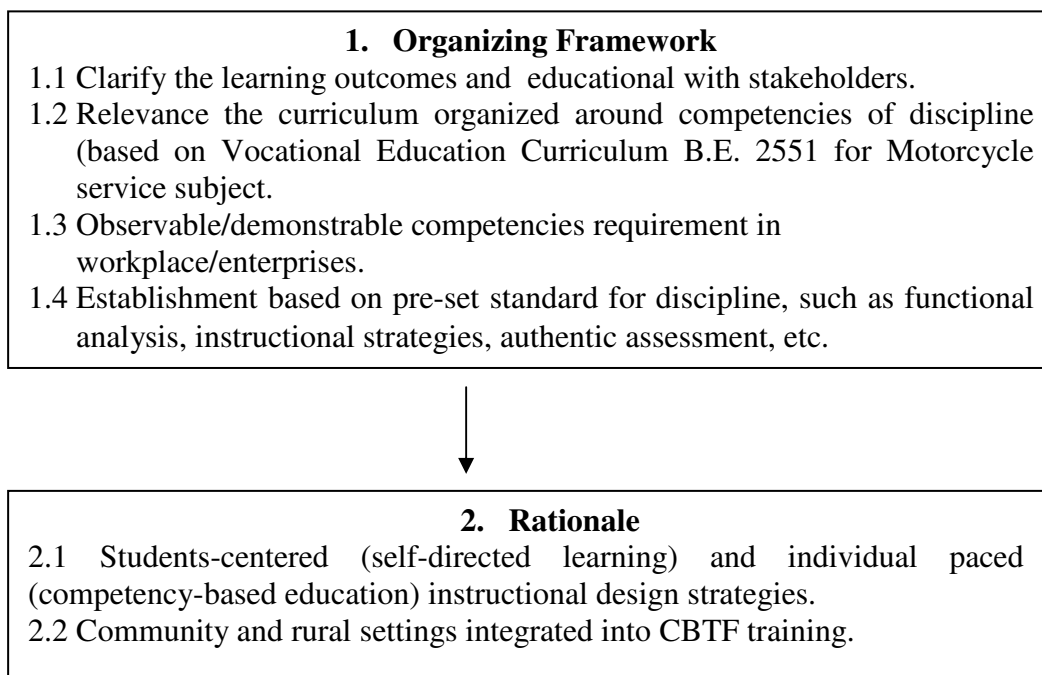
Secretariats regarding the process were to be followed for summarizing the studies. Data were collected regarding the reasons for exclusion, characteristics of included studies, journals, interventions and learning outcomes (Creswell, 2012).

## Results

### Establishing the CBTF model for teachers' vocational education in the motorcycle service course

The design of CBTF process representation for motorcycle service course requires essential transformation in the process of TVET, as reflected in the approaches to teaching, learning and students assessment. Remarkably, although the specific definition of CBTF for the discipline of VEC is a curriculum or programmes of study that has as its primary learning outcome the acquisition and demonstration of all competencies for Motorcycle Service Practice (Automotive Mechanics Vocational Curriculum for VEC, 2014). Moreover, CBTF in motorcycle service uses the three evidence-based competency domains and their associated knowledge, skills and attitudes as the direct link between curriculum content and the expected social demands outcome of learning—the preparation of a fully qualified for practice.

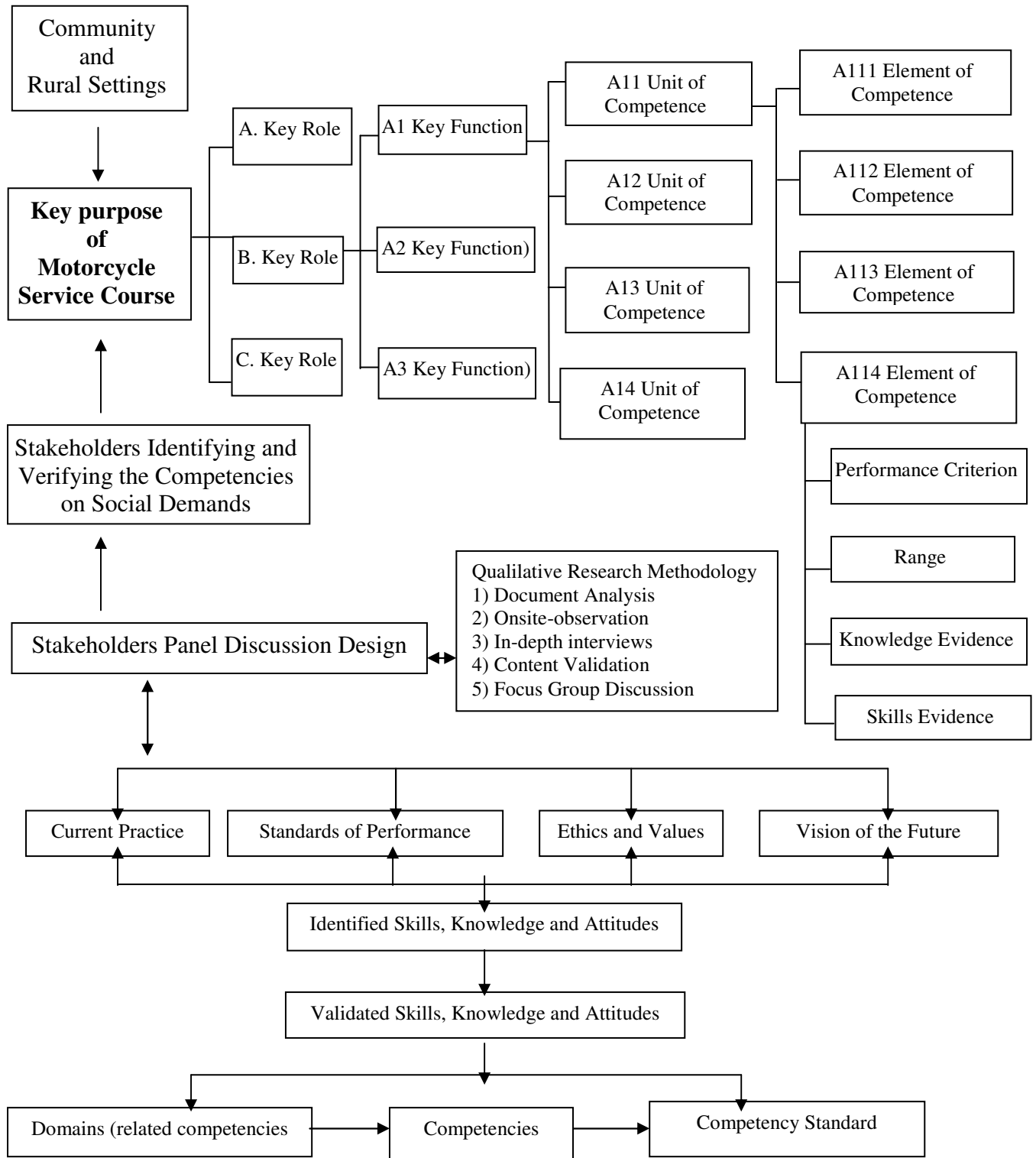
CBTF places the emphasis on teaching and learning strategies that engage the learner as an active participant in all aspects of the process of acquiring the competencies needed to demonstrate competent practice in a specific discipline (Sudsomboon, 2010 b). The intended outcomes of learning for performance of the professional role (the specific competencies) are made transparent to all stakeholders (ANTA, 2013; Boahin & Adriann Hofman, 2014; Maclean et al., 2013; Smith, 2010; Pickford & Brown, 2006; Sudsomboon, 2010 a) is shown in Figure 1.



**Figure 1** The design of CBTF process representation for motorcycle service

## The CBTF Model for Teachers' Vocational Education in the Motorcycle Service Course

The functional analysis is represented in the functional map as a learning module design is shown in Figure 2. Furthermore, the qualitative research methodology is employed in this study (Sudsomboon, 2013).



**Figure 2** The CBTF model for teachers' vocational education in the motorcycle service course

Automotive teachers need to be themselves competent in the practice of motorcycle service; with a functional map as a learning module to self-reflection and life-long learning. They need to learn to the principles of CBTF in the context of competency-based education theory, which includes flexibility in the time needed for learners to acquire and repeatedly perform (Kasipha, 2007; NVCER, 2003; NVCER, 2012; Sudsomboon, 2010 a, b).

### **The competency-based teaching and learning strategies**

The competency-based teaching and learning strategies is conducted of Brookfield and Holst (2011) is shown in Figure 3. The teaching by demonstration is expected competencies, within a supportive and enabling environment for learning. They need to encourage student self-directed learning process, and the development of new ways of thinking about what they are solving the problems (logical reasoning and reflection) and their application to practice. The attributes of CBTF model, gleaned from a wide variety of sources in the learning modules as follow as (Brookfield & Holst, 2011; Norton, Harrington, & Gill, 1976):

1. Teachers' manual
2. Teaching material
3. Instructional media support
4. The demonstration set of motorcycle service course are:
  - 4.1 Parts and system configurations;
  - 4.2 Virtual learning environment (e.g., e-training, computer-assisted instruction, etc.)
  - 4.3 Students learning materials (motorcycle manual, work sheet, operation sheet, pre-test and post-test, reporting, attributes assessment, assessment rubrics, and evaluation sheet).

### **Students' assessment**

Formative assessments in CBTF need mostly intensive level of students' performance-based direct interaction with and observation of student learners. Standardized tests of knowledge can help to determine progress along the cognitive domain of required knowledge. Standardized skills assessments can be used to measure the ongoing development of psychomotor, decision making and communications skills. The standardized skills assessment for students' is a precise language to specify performance. The precision involves the consistent use of an "action verb" as the beginning word (Pickford & Brown, 2006; Keating, 2008; Norton, Harrington, & Gill, 1976).

Therefore, Students' have performed the practice as follow as the operation sheet that included into a learning module. The formative assessment is enhancing students' know how to write the operation report in action verb, also called active verb, is a transitive verb has the meaning of acting, performing, or executing, and always provides important information about the content of a competency. An action verb is usually use to describe skill, competency, basic academic ability, educational objective, curriculum design, learning assessment, learner profile, curriculum vitae, and recruitment advertisement. An action verb also needs an object. The object, a noun or a noun phrase, is the performing target of the

action verb. Aside from this, it may need to specify the condition or circumstance to increase precision (Sudsomboon, 2010 a, c). Hence, a competency statement had the form of “action verb + object + condition” that can be discussed (Norton, Harrington, & Gill, 1976).

Direct interaction and observation are also, of course, essential to measurement of skills acquisition in the psychomotor domain of practice. In addition, direct interaction and observation are necessary to determine demonstration of certain competencies in the affective domain that define the concept of ‘professionalism’ (Brookfield & Holst, 2011; Kasipha, 2007; NVCER, 2003; NVCER, 2012), such as, abilities related to inter-professional collaboration, and respectful behaviour. Summative assessments of learning within CBTF must crucial be linked to demonstration of the overall intended outcomes of learning (Hennessy, Hernandez, Kieran, & MacLoughlin, 2010). Operation reporting have emerged as a verifiable, criterion linked, documentation of such achievement toward stakeholders and other community and rural settings. The discussion and suggestion can also students’ gain the critical thinking for the new way to create the alternative solutions.

### **Discussion**

This paper presents a new learning environment through the competency-based training framework for teachers’ vocational education at the Automotive Mechanics Program of Nakhon Si Thammarat Province. The design goals have acknowledged the distinct advantages to enhance learning outcomes that can be achieved as a result of widely utilized skills in the teaching of motorcycle service course. Four components, each one composed of sampling design from stakeholders integrated to design a competency-based training framework – theoretical backgrounds, research design (the design of CBTF process representation for Motorcycle Service Course and the CBTF model for teachers’ vocational education in the motorcycle service course), the competency-based teaching and learning strategies, and students assessment – complete each other in designing by stakeholders (Hellwig, 2006; Hennessy, Hernandez, Kieran, & MacLoughlin, 2010; Sudsomboon, 2013).

This CBFT model implies that appropriate teaching and learning modules enhance quality of TVET, which in implication to accomplishment of students’ competencies. Sudsomboon, 2007 and Sudsomboon et al. (2008) found that the teachers have to corroborate the assertion intensively in a learning module that students need to be given repeated reinforcement at every stage of the module until they master the required competencies for them to move on to a more advanced one (Hellwig, 2006). However, students ma selection of modules need to be regulated in order to achieve coherence in academic discourse and competencies required in the community and rural settings. Designing a learning module, students’ background knowledge is compulsory and pre-requisites for entry level into advanced modules. They would restrict from selecting particular modules that are relatively easy to complete, or avoid a particular type of assessment or related competencies which may ultimately be crucial for employment.

In term of students’ assessment, the validity and reliability of any measurement approach within CBE is necessarily linked to the ability of the assessors to use those new tools in ways that are both valid and reliable. Teachers must themselves acquire new



competencies in using the emerging assessment modalities to evaluate the traditional outcomes of knowledge, skills and professionalism.

### Conclusion

The CBTF model have validated construct and transfer validity on future research in the competency-based training framework for teachers' vocational education at the Automotive Mechanics Program of Nakhon Si Thammarat Province. However, only one study established current CBTF model, which would be the next step in implementing evidence that training challenges on a CBTF model provides sustainable development of competencies and the identification of community and rural settings demands tasks to allow the improve of competencies in Nakhon Si Thammarat.

In summary, CBTF model is a dynamic, complex approach to learning a professional role, enhanced to TVET need of social demands. The advantages of this model to education far outweigh the disadvantages of the more traditional approaches to automotive mechanics professions' education that rely more on competencies acquired than on whether that can be appropriately and reliably applied in the community and rural settings. Preparing workforce professionals for future practice requires a commitment to the reality of Nakhon Si Thammarat province, and the specific needs of TVET those seeking, such as motorcycle service course (Sudsomboon, 2007; Sudsomboon et al. 2008).

A further challenge has emerged for researchers 'to investigate the effects of competency-based training framework for teachers' vocational education at the Automotive Mechanics Program of Nakhon Si Thammarat Province'. The suggestion is to improve about teachers' to acquire competencies to assess student learning within the context of the competency-based education. This suggests assessment of student performance within individual pace and inter-professional teams, quality improvement, and the application of principles of evidence-based practice would be implemented.

### References

- Australian National Training Authority, (ANTA). (2003). *What Makes for Good Workplace Learning? At a Glance*.
- Arguelles, A., & Gonczi, A. E. (2000). *Competency based education and training: a world perspective*. Mexico City: Grupo Noriega editors.
- Automotive Mechanics Vocational Curriculum for VEC, (2014). [Online Available]: [www.thatum.ac.th/rthatum/cy.pdf](http://www.thatum.ac.th/rthatum/cy.pdf)
- Barnett, R. (1994). *The limits of competence: knowledge, higher education and society*. Buckingham: Open University Press.
- Biemans, H., Nieuwenhuis, L., Poell, R., Mulder, M., & Wesselink, R. (2004). Competency-based VET in the Netherlands: backgrounds and pitfalls. *Journal for Vocational Education and Training*, 56(4), 523–538.
- Boahin, P., and Adriann Hofman, W. H. (2014). Perceived effects of competency-based

- training on the acquisition of professional skills. *International Journal of Educational Development*, 36, 81-89.
- Brockmann, M., Clarke, L., Me`hout, T., & Winch, C. (2008). Competence-based vocational education and training (TVET), the cases of England and France in a European perspective. *Vocations and Learning*, 1(3), 227–244.
- Brookfield, S. D., & Holst, J. D. (2011). *Radicalizing Learning: Adult Education for a Just World*, San Francisco: Jossey-Bass.
- Callan, V., & Ashworth, P. (2004). *Working Together: Industry and VET Provider Training Partnerships*. Australian National Training Authority, Adelaide, Australia.
- Casey, D. (1999). *Method and procedure for developing competency standards*. Proc. *Australian-Taiwan Seminar on Competency Based Training*. Taichung: Taiwan. 3-15.
- Creswell, J. W. (2012). *Educational research :Planning, conducting, and evaluating quantitative and qualitative research*, 4<sup>th</sup> ed. Boston: Pearson.
- Hellwig, S. (2006). Competency-based training: different perceptions in Australia and Germany. *Australian Journal of Adult Learning*, 4(1), 51–74.
- Hennessy, E., Hernandez, R., Kieran, P., & MacLoughlin, H. (2010). Teaching and learning across disciplines: student and staff experiences in a newly modularised system. *Teaching in Higher Education*, 15(6), 675–689.
- Hilferty, F. (2008). Teacher professionalism and cultural diversity: Skills, knowledge, and values for a changing Australia. *The Australian Educational Researcher*, 35(3), 53-70.
- Kasipha, C. (2007). *Innovation in Vocational and Technical Education*. King Mongkut’s University of Technology Thonburi.
- Keating, J. (2008). *Current Vocational Education and Training Strategies and Responsiveness to Emerging Skills Shortages, a Well-skilled Future – Tailoring VET to the Emerging Labour Market*. NCVER, Adelaide.
- NCVER (National Centre for Vocational Education Research), (2003). *Fostering Generic Skills in VET Provision And Workplaces*. Australia.  
<http://www.ncver.edu.au/generic.htm> (Retrieved June 6, 2014).
- NCVER. (2012). *Guidelines for assessing competence in VET*. Western Australia.
- Norton, R. E, Harrington, L, & Gill, J. (1976). *Performance Based Teacher Education : The State of The Art*. American Association for Vocational Istruotional Materials.
- OECD (Organization for Economic Co-operation and Development), (2012). *Skills development pathways in Asia*. Paris: OECD Publishing.
- Pickford, R, & Brown, S. (2006). *Assessing Skills and Practice*. Great Britain: Routledge.
- R. Maclean et al. (eds.), (2013). *Skills Development for Inclusive and Sustainable Growth in Developing Asia-Pacific, Technical and Vocational Education and Training: Issues, Concerns and Prospects 19*, DOI 10.1007/978-94-007-5937-4\_9, Asian Development Bank.
- Smith, E. (2010). A review of twenty years of competency-based training in the Australian vocational education and training system. *International Journal of training and Development*, 14(1), 54–64.

- Sudsomboon, W. (2007). The Unit of Competence Development on Automotive Electricity and Electronics Systems Technology Subject for Learner Capability Improvement of Faculty of Industrial Education and Technology at King Mongkut's University of Technology Thonburi. *Khon Kaen University, Journal of Education*, 30(4), pp. 56-64.
- Sudsomboon, W., Hemwat B., Seehamat T., & Sudsomboon J. (2008). The appropriateness of automotive technology education curricular content through competencies as perceived by training instructors. Retrieved November 10, 2008, from <http://www.kmutt.ac.th/rippc/pdf/abs51/513002.pdf>
- Sudsomboon, W. (2008). Construction of an Automotive Technology Competency Analysis Profile for Training Undergraduate Students: A Case Study of Automotive Body Electrical Technology Systems. Retrieved November 25, 2008, from <http://educom2008.scis.ecu.edu.au/papers.php>
- Sudsomboon, W. (2010 a). Applications of Competency-Based Education: In the Context of Diversity and Change. *Journal of King Mongkut's University of Technology North Bangkok*, 20(2), 370-381.
- Sudsomboon, W. (2010 b). A Competency-Based Curriculum Development Model in Automotive Technology Subject, *Technical Education Journal King Mongkut's University of Technology North Bangkok*, 1(2), 65-76.
- Sudsomboon, W. (2010 c). Learning Innovation in Technology: Towards a Training Package for Sustainability Training to Solve the Problems. *Journal of King Mongkut's University of Technology North Bangkok*, 20(1), 17-27.
- Sudsomboon, W. (2013). Core Competencies Development for Thai Automotive Service Technicians: The Stakeholder-Driven Consensus Approach. *Journal of King Mongkut's University of Technology North Bangkok*, 23(2), 268-279.
- VEC (Office of the Vocational Education Commission), (2014). Vision and Mission. [Online Available]: <http://www.vec.go.th/VisionandMission.aspx>

ICER2014-Programme Template

SECTION 2 B

Sunday 14th September 2014 : Oral Presentation

Room No.	1403	1404	1405	1406	1407	1454	1455	1456	1457	1458
Theme	1 : Teacher Education & Professional Development	2 : Curriculum and Instruction	2 : Curriculum and Instruction	2 : Curriculum and Instruction	3 : Educational Measurement	4 : Educational Climate	5 : Educational Management	5 : Educational Management	2 : Curriculum and Instruction	7 : Education for Diversities
Time (Hrs.)										
14.30 - 14.50	Rebecca S. Galela, et al <i>Parenting Style and Social Competence as Correlates to the Teaching Interest of Pre-Service Teachers</i>	Missy M. S. Abutanmo, et al <i>Scaffolding Students' Readiness in the Implementation of K-12: Basis for Curriculum Enhancement</i>	Normalah P. Solaiman <i>The Mathematical Ideas Involved in Maranao Weaving</i>	Roxane P. Valor, et al <i>Mother-Tongue-Based Approach in Teaching Mathematics in Grade I</i>	Steven Graham <i>Cheating: Where There is a Will, There is a Way</i>	May A. Cañedo, et al <i>Problems of Working Students Taking Teacher Education Courses</i>	Sompop Suwannarat <i>Factors that Affect the Success of the System take care of Student Counseling in School beneath Vocational Education Commission</i>	Sunisa Onta, et al <i>Management in the Next Decade of General Education Office Khon Kaen University</i>	Ruben L. Abucayon, et al <i>Common Grammatical Errors in Writing: Plan of Action</i>	Rizalina G. Gomez, et al <i>Postnatal Practices among the Bajau Mothers: Basis for a Culturally Responsive Health Care Program</i>
	Somnuek Phoesom, et al <i>Designing a Competency-Based Training Framework for Teachers' Vocational Education in the Motorcycle Service Course</i>	Siraphatson Sonsena, et al <i>The Creative Problem Solving Ability of Grade 3 Students Taught by Open Approach</i>	Sukanya Wittayasripho, et al <i>The Problem Solving Ability of Undergraduate Students taught by Open Approach</i>	Sumonta Singcha, et al <i>The Reasoning Thinking Ability of Grade 8 Students taught by Open Approach</i>	Viangvivut Tumtool, et al <i>Innovative Leadership of School Administrators Affecting High Performance Organization of School in the Secondary Educational Service Area Office 21</i>	Michael A.R. Napoles, et al <i>The Level of Awareness on Disaster Risk Reduction and Management of the Students of the College of Education, Mindanao State University – Iligan Institute of Technology</i>	Sudamas Srinok, et al <i>Teacher Competency Factors and Students' Life Skill Affecting Students' Quality under the Office of Bueng Kan Primary Educational Service Area</i>	Waspodo Tjipto Subroto, et al <i>Development of Competence Balance-Oriented Integrative Thematic Learning Tools to Foster Critical Thinking Skill and Positive Character of Elementary School Students</i>	Supaporn Sanglub, et al <i>The Development of Analytical Thinking Ability of Grade 8 Students by Using Open Approach</i>	Maruli Andria Puspasari <i>The Effect of Application Finger Magic Methods to Hearing Impairment Students of Multiplication Outcomes Class III in SDLB-B Karya Mulia I Surabaya</i>
15.10 - 15.30	Wahyu Sukartiningsih <i>Effectiveness of Meaning Learning Model in Developing Moral Sensitiveness and Thinking Skills of Elementary School Students</i>	Suchila Charoenkwan, et al <i>Analytical Thinking of Grade 12 Students Taught by Open Approach</i>	Rizalina G. Gomez <i>Career Switching of Non-Education Graduates to Teaching Job: Its Implication in the Implementation of the K-12 Program</i>	Sunti Bunlang, et al <i>Scaffolding Questioning in Classroom Using Lesson Study and Open Approach in Thailand</i>		Nalwadda L. Tamusuza <i>Cross Cultural Perception of School Climate by Teachers, Students and Parents of Selected Schools in the Northern Suburbs of Bangkok Thailand</i>	Tuan Anh Hoang, et al <i>The Development of Quality Management System for Student Affairs of Hue University's College of Education in Vietnam</i>	Thoen Seenuan <i>An Evaluation of Readiness in Provision of Education in Schools under the Basic Education Commission: Early Childhood Education</i>	Suprapti Rahayu <i>The Activities of Hurdels Game to Improve Gross Motoric Skill of B Group Children at Salsabilah Kindegarten</i>	Niken Nugraheni, et al <i>PQ4R (Preview Question Read Reflect Recite Review) Method Usage toward Reading Skill to the Fifth Class of Hearing Impairment Student in SDLB-B Dharma Wanita Sidoarjo Regency</i>

ICER2014-Programme Template

SECTION 2 C

Sunday 14th September 2014 : Oral Presentation

Room No.	1403	1404	1405	1406	1454	1455	1456	1458
<b>Theme</b>	1: Teacher Education Lifelong Education	2 : Curriculum and Instruction	2 : Curriculum and Instruction	2:Curriculum&Instruction 4:Educational Climate 7: Education for Diversities	4 : Educational Climate	5 : Educational Management	5 : Educational Management	7 : Education for Diversities
<b>Time (Hrs.)</b>	6:							
<b>15.30 - 15.50</b>	<b>Yutaka OHARA</b> <i>CSCL Perspective on Elementary School Teacher Training: Case of Clickers</i>	<b>Supatra Singsatit, et al</b> <i>Semiotics Activity in Mathematics Classroom Using Lesson Study and Open Approach</i>	<b>Thitima Gamlunglert</b> <i>The Effectiveness of Enhancing 21st Century Skills at Information, Media And Technology Skills for Primary Students Using the Knowledge Construction and Enhancing Scientific Thinking Model</i>	<b>Tuenjai Pinkerd</b> <i>The Korat Language in Prachinburi and Sakaeo</i>	<b>Nguyen Quang Giao, et al</b> <i>Strengthening Relationship between Universities and Enterprises in Training Human Resources</i>	<b>Sutipong Amoonrach, et al</b> <i>School Administrators' Roles in Development of Information Communication Technology Infrastructure for Education Support of Schools under the Office of Secondary Educational Service Area 25</i>	<b>Warisa Prasoesong, et al</b> <i>Leadership Soft Skills of the Administrators under the office of Secondary Educational Service Area 25</i>	<b>Rizqi Fajar Pradipta</b> <i>Increasing Sentence Control Procedures through the Use of Glow Images Media for Deaf Student of SLB-B Dharma Wanita Kab. Sidoarjo</i>
	<b>Dung That Ton, et al</b> <i>Solutions to Standardisation of Teachers with Junior College Degree to Teachers with College Degree in Pedagogy</i>	<b>Taksina Chai-ittipornwong</b> <i>Enhancing Communication Arts Learning with a Flipped-Classroom Model</i>	<b>Ulhaq Zuhdi</b> <i>The Development of Total Physical Response Method to Improve Mastering English for Lab School 1st Graders Students</i>	<b>Wulan Trisnawaty</b> <i>The Development of Assessment Instrument Based on Student Center on Physics Learning</i>	<b>Phra Footrakul Linphu, et al</b> <i>The Relationships of Teacher Monks' roles and Students' Basic Morality in Schools</i>	<b>Mariam A. Sunggod</b> <i>Content Analysis of Grade 7 Science Textbook</i>	<b>Watcharakorn Baojanthuek, et al</b> <i>School Administrator' Roles in Developing an Information Communication Technology Systems for Education of Schools Under The Office of Secondary Educational Service Area 30</i>	<b>Taryaningsih</b> <i>Study of Intuitive Method Implementation in Learning the Beginning of Reading And Writing to Hearing Impairment Children With Maternal Reflective Approach in SLB Pangudi Luhur Jakarta</i>
<b>16.10 - 16.30</b>	<b>Wimonman Sroongrueng</b> <i>Effects of an Innovative Mindfulness-Training Program on Self-Awareness and Learning of Medical Technologist Students</i>	<b>Tatsuya Mizoguchi</b> <i>Function and Equation as Tool for Future Construction</i>	<b>Weerayute Sudsomboon</b> <i>Effects of a Case-Based Reasoning Learning Strategy on Dynamic Tracking Control for Non-holonomic Mobile Manipulators</i>	<b>Yullyati</b> <i>The Development of Teaching Reading and Writing Based Balance Literacy Approach to Building Learning Independence Student in Inclusive Schools</i>	<b>Tran Thi Thuy Oanh</b> <i>A Study on Using the Media to Express Interpersonal Meaning in English of Students of the University of Danang, Vietnam</i>	<b>Thanat Phatthanaphakhin, et al</b> <i>Guideline for Developing the Information and Communication Technology for Education of Basic School under the Office of Nakhonratchasima Primary Educational Service Area 2</i>	<b>Weeradet Xata, et al</b> <i>The Management Factors Affecting to Quality of World-Class Standard Secondary School in the Northeast</i>	<b>Tatum Tivani</b> <i>Reduce a Blindsight For Visual Impairment Children by Behavior Modification in SDLB-A YPAB</i>



# Program for ICER 2014 & APEC-Khon Kaen International Symposium 2014

13-16 September 2014

Saisuree Jutikul Hall, Faculty of Education, Khon Kaen University

\*\*\*\*\*



APEC-KHON KAEN  
International Symposium 2014

The 7<sup>th</sup> International Conference on Educational Research:  
"Challenging Education for Future Change"  
13 -14 September 2014

"Emergency Preparedness Education: Learning from Experience, Science of Disasters, and Preparing for the Future"  
13 -16 September 2014

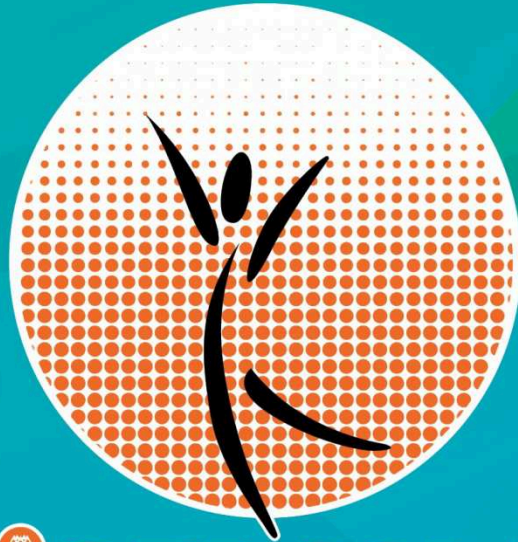
APEC-Khon Kaen International Symposium:  
"Emergency Preparedness Education: Learning from Experience, Science of Disasters, and Preparing for the Future"  
13 -16 September 2014

Time	Saturday 13 September 2014	Time	Sunday 14 September 2014	Monday-Tuesday 15-16 September 2014
08.00-08.45	Registration	08.15-08.45	Registration	<b>APEC Symposium</b> (specialists) at Chiang Khan, Loei Province
09.00-09.45	<b>Opening Ceremony</b> <span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <ul style="list-style-type: none"> <li><b>VDO presentation</b></li> <li><b>Report:</b> Asst.Prof.Dr.Maitree Inprasitha, Dean of Faculty of Education</li> <li><b>Welcome Address and Opening Remark:</b> Assoc.Prof.Dr.Kittichai Triratanasirichai, President of Khon Kaen University</li> </ul> <b>Photo session</b> <b>Press Conference</b> (Room 1340) President of KKU, Dean of Faculty of Education, Project Overseers	09.00-10.00	<span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <b>Keynote Speaker#3</b> <b>Dr. Mudjito, AK, M.Si.</b> <i>Faculty of Education, State University of Surabaya, Indonesia</i> <b>"Indonesia Special Education Services (INA-SES): Current Issues and Initiatives"</b>	
09.45-10.45	<b>Classroom Demonstration</b> <span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <i>by teachers from Japan and Hong Kong</i>	10.00-11.00	<span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <b>Keynote Speaker#4</b> <b>Dr.Roberto Araya</b> <i>University of Chile</i>	
10.45-11.45	<b>Classroom Reflection</b> <span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <i>by APEC specialists</i>	11.00-12.00	<span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <b>Keynote Speaker#5</b> <b>Assoc.Prof.Dr. Tsui Kwok Tung</b> <i>Department of Curriculum and Instruction, Hong Kong Institute of Education</i> <b>"Curriculum leadership for curriculum change and sustainable development: what can we learn from the case of Hong Kong primary schools?"</b>	
12.00-12.45	<b>Lunch</b>	12.00-12.45	<b>Lunch</b>	
13.00-14.00	<b>Keynote Speaker#1</b> <span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <b>Dr. Sukarno D. Tanggol</b> <i>Chancellor, Mindanao State University-Iligan Institute of Technology, Philippines</i> <b>"Regional Integration in a Multi-Ethnic, Multi-Lingual, and Multi-Religious Setting: Challenging Education for Future Change"</b>	13.00-13.30	<b>ICER Poster Presentation</b> (in front of Saisuree Jutikul Hall)	
14.00-15.00	<b>Keynote Speaker#2</b> <span style="float:right">LIVE on ednet.kku.ac.th/~English</span> <b>Prof.Mariolina Bartolini Bussi</b> <i>Chair of 23<sup>rd</sup> ICMI Study, University of Modena and Reggio Emilia, Italy</i> <b>"Cognitive democracy and mathematics: the first ICMI study on teaching and learning whole numbers in primary school"</b>	13.30-16.30	<b>ICER Oral Presentation: (Section 2A, 2B, 2C)</b> by themes*	
15.00-15.30	<b>ICER Poster Presentation</b> (in front of Saisuree Jutikul Hall)		<b>APEC Symposium:</b> APEC specialists move to Chiang Khan, Loei Province	
15.30-17.30	<b>APEC Symposium:</b> Room 1507 <b>ICER Oral Presentation: (Section 1A and 1B)</b> by themes*			
18.00-20.30	<b>Welcome Dinner</b> at Demonstration School of KKU: <b>Mordindaeng</b> (near KKU main gate) <i>Shuttle bus service is provided.</i>			

**\*Themes for ICER**

1. Teacher Education and Professional Development
2. Curriculum and Instruction, Learning in classroom context
3. Educational Measurement and Evaluation
4. Educational Climate: cultural and social context
5. Educational Management; planning; policy implementation
6. Lifelong Education: non-formal and informal learning
7. Education for Diversities: gender, underprivileged, marginal groups, special needs

- Room 1403
- Room 1404, 1405, 1406, 1457
- Room 1407
- Room 1454
- Room 1455, 1456
- Room 1403
- Room 1458



**ICER 2014**

**Organized by**

Faculty of Education, Khon Kaen University, Thailand

**In collaboration with**

The Hong Kong Institute of Education, China

Thailand Education Deans Council

The Consortium of Sixteen Education Deans (Group 16), Thailand

Faculty of Education, State University of Surabaya, Indonesia

College of Education, Mindanao State University-Iligan Institute of Technology, Philippines