

**International Academic Multidisciplinary Research Conference 2017**

**Proceeding of**

**INTERNATIONAL BUSINESS ECONOMIC TOURISM SCIENCES TECHNOLOGY  
HUMANITIES SOCIAL SCIENCES AND EDUCATION RESEARCH CONFERENCE**

*Berlin, Germany  
23 – 25 October, 2017*

**THE 2017 ICBTS**



**Edited by Chayanan Kerdpitak, CK Research, Thailand  
Kai Heuer, Wismar University, Germany  
Ebrahim Soltani, Hamdanbin Smart University, UAE  
Gilbert Nartea, Lincoln University, New Zealand  
Vipin Nadda, University of Sunderland, United Kingdom**

**ISBN 978-616-406-740-6 (electronic book)**

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**Conference Proceedings**

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**Conference Three Themes**

*The International Business Tourism and Applied Sciences Research Conference*

*The International Education Social Sciences and Humanities Research Conference*

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# Conference Proceedings

INTERNATIONAL BUSINESS ECONOMIC TOURISM SCIENCES TECHNOLOGY  
HUMANITIES SOCIAL SCIENCES AND EDUCATION RESEARCH CONFERENCE

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## THE 2017 ICBTS

**Organised by**

**ICBTS Institute Conference Center & IJBTS** International Journal of Business Tourism and Applied Sciences

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Edited by Chayanan Kerdpitak, CK Research, Thailand  
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Published by Chayanan Kerdpitak (ICBTS Institute Conference Center & CK research)  
Phaholyothin Road, Klongnuang, Klongnuang  
Pathumtani 12120, Thailand: Tel 087 0287 287, Fax +662 994 5021

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Proceedings of Abstracts and Papers (on CD-ROM or flash drive) of The International Business Economics Tourism Transport Technology Social Sciences Humanities and Education Research Conference

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All papers in the proceedings have been peer reviewed by experts in the respective fields responsibility for the contents of these papers rests upon the authors.

ISBN: 978-616-406-740-6 (electronic book)

Published by Chayanan Kerdpitak (ICBTS Institute & CK Research)

Pramsiri Boutique Park, 18/83 Building A, Prasertmanukid Rd. Bangkok, 10900, Thailand

Plum Condo Park Rangsit, 91/194 moo4, Phaholyothin Road, Klongnung Klongluang Pathumtani 12120, Thailand

## INTRODUCTION

We would like to welcome our colleagues to the International Business Tourism Transport Technology Social Sciences Humanities Education Research Conference. It is the seven series in 2016 of Conference on Business Tourism and Apply Sciences was held in Amsterdam. As always many members of the ICBTS 2016 community look forward to meeting, sharing and exchanging their research ideas and results in both a formal and informal setting which the conference provides. Likewise, the concept of alternating the international conference every one month on April to November between Europe and the rest of the world is now well established. This year's event in London (UK) Paris (France) Munich (Germany) Amsterdam (Netherlands) Boston (USA) Toronto (Canada) London (United Kingdom) Zurich (Switzerland) Berlin (Germany) Tokyo (Japan) and another continues with the cultural following the very successful and productive event held in London-Zurich in August 2016 in the field of various types for international academic research conference on Business Economics Social Sciences Humanities Education and Apply Sciences. As usual The ICBTS 2016 brings together leading academics, researchers and practitioners to exchange ideas, views and the latest research in the field of Business Tourism and Apply Sciences.

The theme of this event The 2016 ICBTS International Business Tourism Social Sciences Humanities and Education Research Conference is "Opportunities and Development of Global Business Economics Social Sciences Humanities and Education" It is also represents an emerging and highly challenging area of research and practice for both academics and practitioners a like, The current industrial context is characterized by increasing global competition, decreasing product life cycles, Global Business, Tourism Development, Social Sciences Humanities Education Apply Sciences and Technology collaborative networked organizations, higher levels of uncertainties and, above all, and customers. In our view holding this event in Tokyo represents a timely opportunity for academics and researchers to explore pertinent issues surrounding Business Economics Tourism Social Sciences Humanities Education Sciences and Technology.

Potential authors were invited to submit an abstract to the International Conference Session Chairs. All abstracts were reviewed by two experts from the International review committee and final papers were further reviewed by this volume with 30 contributing authors coming from 18 countries. This book of proceedings has been organized according to following categories:

- Business
- Management
- Marketing
- Accounting
- Financial
- Banking
- Economic
- Education
- Marketing
- Logistics Management
- Social Sciences
- Supply Chain management
- Industrial Management
- Information Technology
- Sciences Technology
- Transport and Traffic
- Tourism Strategic
- Tourism Management
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- Tourism Development Policy and Planning
- Technology Application
- Communication and Sciences
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- Health care Management
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**Professor Dr. Ebrahim Soltani**

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## **SPEAKER BACKGROUND**



**Professor Dr. Kai Heuer**

Prof. Dr. Kai Heuer is full professor for business administration at the Business Faculty of Wismar University in Germany. Before, he served as a full professor at the Environmental Campus of Trier University of Applied Sciences. He studied business administration in Germany and the U.S.A. and holds an MBA and a doctoral degree. He has management experience from leading positions in different companies and as business consultant. His research areas are management accounting, organizational development, and international management where he has published numerous papers, reports and textbooks. He is the head of Master Program in Business at Wismar University and a member of the Schmalenbach-Society for Business Economics, Cologne; managing director of the Institute of Health-, Senior- and Social Management; and a former member of the board of the Centre for Aviation Law and Management.

## **SPEAKER BACKGROUND**



### **Dr. Tariq Khan**

**Dr Tariq Khan** is a Lecturer and Director of Postgraduate Programmes of Business School in Brunel University, Uxbridge, London, United Kingdom. He received his BEng in Aerospace Engineering from Kingston University, his MSc in Manufacturing Technology from University of Warwick, and his PhD in Intelligent Education Systems from University of Salford. He subsequently worked as a research associate in Heriot-Watt University Edinburgh and as a senior lecturer at London Metropolitan University. He has specialist teaching in Business Process Modelling, Web Programming, Software Engineering, Classical Logic, Human Computer Studies. He has Book and published over 20 papers and reports in such journals as Information Systems Evaluation and Integration (ISEing). He supervised a considerable number of PhD theses and is a consultant on business and supply chain and engineering industry in England and United Kingdom.

## **SPEAKER BACKGROUND**



### **Dr. Chayanan Kerdpitak**

**Dr. Chayanan Kerdpitak** is a Lecturer and management committee of Doctor of Business Administration Programmes of College Management Innovation in Valaya Alongkorn Rajabhat University in Thailand and a management committee of CK Research Consultant in Bangkok. I was a Lecturer of Principle Marketing, Sales Management, Consumer Behavior, and Marketing Research at The Suan Dusit University in Thailand. She received a Ph.D. in the field of Business Logistics within Industrial at Ramkhamhaeng University, Thailand. She has published over 20 proceeding paper and some reports in such journals as International Journal Business and Economics Research. She has been a consultant on Import Automobile Industry from Germany for International Marketing and Marketing Research. Chayanan graduated a B.B.A and M.B.A in Business Administration from The Ramkhamhaeng University, Bangkok, Thailand (Major in Marketing).

## CONTENT

INTRODUCTION	
COMMITTEE	
Conference Program	
RENEWABLE ENERGY BY PROJECT-BASED LEARNING	1
Idan Halbi, Ifaa Banner, Bosmat Shalom-tuchin, Yulia Einav, Hen Friman	
INTEGRITY OF COUNSELLING INTERVIEW AND PERCEPTION OF CLIENT’S DIGNITY AMONG EDUCATION FACULTY MEMBERS OF THE UNIVERSITY OF CALABAR, NIGERIA	8
Matthew Ojong Achigbe	
“SPIRITUAL TOURISM” THE NEW TOURIST DESTINATION FOR THAI TOURISM CASE STUDY IN “ WAT TATON” CHAING-MAI THAILAND	19
Supakit Mulpramook	
THE DIFFERENCES OF SOCIAL AND POPULATION FACTORS TOWARDS TOURISTS’ ATTITUDES TO STAYING AT GREEN HOTELS IN BANGKOK	25
Rumpapak Luekveerawattana	
THE STUDY ON MEDIA EXPOSURE BEHAVIOR IN POLITICAL ISSUES OF UNIVERSITY STUDENTS	32
Veerapon Vongprasert	
THE STUDY OF APPLICANTS’ SATISFACTION OF UNIVERSITY ADMISSION SYSTEM : UNDERGRADUATE LEVEL, SUAN SUNANDHA RAJABHAT UNIVERSITY	39
Aphichart Kampoomprasert & Chontiya Ledanan	
THE STUDY OF THE PARTICIPATION OF THE PRESIDENT OF STUDENT COUNCIL ELECTION, UNDERGRADUATE PROGRAM, SUAN SUNANDHA RAJABHAT UNIVERSITY	47
Sudabhorn Arundee & Barameeboon Sangchan	
EVALUATION OF TWO FACTORS ON BEGINNER LEARNERS’ FLUENCY	52
Alireza Behfar, Meira Levinson, Nancy Hill	
BOROBUDUR TEMPLE WORLD HERITAGE SITE AUDIT	61
Anggi Marisa Lubis	
9/11 THE DOMESTICS CRUSADERS REGISTERS VIOLENCE AGAINST MUSLIMS FOLLOWING 9/11	73
Rehab Farouk and Mona Anwar	
THE STUDY OF SATISFACTION OF THE DEVELOPMENT OF GRADE VALIDATION SYSTEM BASED ON CURRICULUM STRUCTURE, UNDERGRADUATE STUDENTS, SUAN SUNANDHA RAJABHAT UNIVERSITY	104
Aphichart Kampoomprasert & Wanwika Sattaworn	
DEVELOPMENT OF A SOLUTION TO THE TRAFFIC ISSUES INSIDE SUAN SUNANDHA RAJABHAT UNIVERSITY	111
Wicha Khankham & Dr.Komol Paisan	
ROLE OF PROVINCIAL GOVERNOR IN CONTROL OF LOCAL ADMINISTRATION ORGANIZATIONS: CASE STUDY NONGBUALAMPHU PROVINCE	119
Barameeboon Sangchan & Sudabhorn Arundee	
ACTING AS A TOOL TO EXPRESS POWER OF MEDIUM	127
Kusuma Teppharak	
EQUIPMENT DESIGN TO CREATE TIE-DYE FABRIC PATTERN	132
Tanutpong Phriwanrat	
WICKERWORK PROCESS ANALYSIS APPLY FOR HOME DECORATION DESIGN: PRANEE HANDICRAFT SING BURI THAILAND	138
Akapong Inkuer	
SOUVENIRS DESIGN FROM ARTS AND CULTURAL	142
Noppadon Sangwalpetch	
GERMAN LEADERSHIP IN EU FOREIGN POLICY AFTER EUROZONE CRISIS?	147
Merve Yavuz	

ESL BASIC LEARNERS: PERSONAL HISTORIES OF WRITING	161
Ketkanda Jaturongkachoke, Supath Kookiattikoon and Supamit Chanseawrassamee	
THE INFLUENCE OF AN INTERVENTION PROGRAM IN THE FIELD OF TIME MANAGEMENT, AMONG STUDENTS WITH LEARNING DISABILITIES AND ADHD-STRATEGIC VIEW	169
Anat Frishman Shitrit and Ofira Tykochinsky	
THAI PERFORMING ARTS IN KING PRAJADHIPOK'S LAWS	170
Manissa Vasinaron	
FABRIC PRINTING DESIGN OF SARONG AS A RESULT OF A STUDY OF TEXTILE PATTERNS OF LAO-SONG (THAI SONG DAM) , SUPHAN BURI PROVINCE	176
Suwit Sadsunk	
THE ART OF THE FABRIC PATTERN DESIGN BY STUDYING THE WOODEN CARVING ON GINGERBREAD IN VIMANMEK MANSION IN THAILAND	185
Chanoknart Mayusoh	
MAINTAINING SIGNIFICANCE OF REALIA IN TRANSLATED PLAY	194
Nataporn Rattanachaiwong	
A WESTERN TREATMENT OF NONWESTERN NATIONAL IDENTITY: A CASE STUDY OF <i>THE KING AND I</i>	200
Chutima Maneewattana	
FINANCIAL STABILITY IN SAMUT SONGKRAM FROM HOUSEHOLD SAVING POTENTIAL	205
Krisada Sungkhamanee & Piyadhida Sungkhamanee	
VITAL FACTORS OF RECENTLY GRADUATES FOR APPLYING JOBS IN ASEAN LABOR MARKET	213
Natnaporn Aeknarajindawat	
TOURISM STRATEGY IN THE SUN TRIANGLE ANALYSIS WITH THE THEORY BASED ON RESOURCES AND INSTITUTIONAL THEORY	217
José G. Vargas-Hernández and Lic. Ana Yanetly Arias Orozco	
CULTURAL AND ART EDUCATION: A MEANS FOR SOCIAL STABILITY IN NORTHERN GHANA	226
Eric Appau Asante and Mavis Donkor	
EXAMINING MOTIVATION TO TEACH LEVELS OF PRE-SERVICE TEACHERS IN TERMS OF SOME VARIABLES	227
Ipek Som Onal	
FEASIBILITY STUDY OF IMPLEMENTATION OF COACHING IN TRAINING OF NURSES IN BAHMAN HOSPITAL IN TEHRA (IRAN)	228
Mohammad Ghahramani	
EXPLORING THE EFFECT OF TECHNOLOGY SUPPORTED COLLABORATIVE LEARNING ON CREATIVE THINKING SKILLS OF PRE-SERVICE TEACHERS	229
Erhan ÜNAL, Fatih ÖZDİNÇ	
ASTIN THEORY AND SOCIAL NETWORKS	230
Elham Akbari and Hamid Abdollahian	
FACTORS DEVELOPMENT OF PHYSICAL ABILITY OF STRIKER FOOTBALL PLAYER: A CASE STUDY OF THAILAND	245
AVM. Adinan Jarayapan & Bhasana Soraphetphisai	
HOTEL BUSINESS DEVELOPMENT WAY TO REACH SERVICE STANDARD FOR SUPPORTING SENIOR TOURISTS IN THE AREA OF AMPHAWA DISTRICT, SAMUTSONGKRAM	249
Benjaporn Yaemjamuang, Monrat Jaiuea & Tassanee Naksanee	
KNOWLEDGE MANAGEMENT FOR WRITING RESEARCH PROPOSAL	253
Wanvisa Saisanan Na Ayudhaya	
DEVELOPMENT FOR 21st CENTURY SKILLS BY USING PROCESSES OF RESEARCH BASED LEARNING	258
Poonyapon Chanfoy	
ACTIVE LEARNING BY USING PROCESSES OF PROBLEM BASED LEARNING	263
Suphanwadee Waiyaroop & Bhanit Yenkhæ	
KNOWLEDGE MANAGEMENT: GUIDE TO WRITE A RESEARCH PROPOSAL	270
Yanika Chuentako, Tassanee Siriwan, Taksina Bunbut, Nalin Simasathaiansophon, Supaksiri Prakarncharoen	

UNIVERSAL DESIGN FOR WARD PATIENTS GOVERNMENT HOSPITAL Jitravadee Roongin Kunkar & Niafifah Tohsareh	274
ORGANIZED ACTIVE LEARNING BY INSTRUCTIONAL MODEL WITH PROJECT BASED LEARNING Sirimanee Banjong, Kannikar Bhiromrat and Teerarat Tipjaradmetha	281
AMERICA FIRST, WHO IS SECOND? MEDIATION OF A DESTINATION IMAGE THROUGH HUMOR AND POLITICAL SATIRE Maja Turnsek Hancic and Petr Janecek	287
DESIGNING A SUITABLE E-LEARNING SYSTEM BASED ON A SURVEY OF THE USE OF SYSTEMS AT TOP UNIVERSITIES FROM THE ARWU RANKING Viktoria Fabusova, Juraj Fabus, Maria Matuskova	296
INNOVATIVE ACADEMY PROPECT-DISINFECTION OF EFFLUENTS WITH RENEWABLE Hen Friman, Faina Nakonechny	307
HOW PARTICIPATION IN CAMPUS RECREATION PROGRAMMING IMPROVES STUDENT RENTETION James G. Archibald	312
SPANISH FRANCHISING: EXPLAINING OWNERSHIP Rosa M, Mariz Pérez	313
ORGANIZED ACTIVE LEARNING BY CREATIVE BASED LEARNING Chompunuj Limlertmonkol & Weerapoj Ruttanawarn	322
PARTICIPATORY LEARNING: FROM THEORY TO PRACTICE IN PSYCHOLOGY FOR TEACHER COURSE Panuwat Sivaskunraj	327
THE DEVELOPMENT OF ONLINE ADMISSION FOR GRADUATE STUDENTS, SUAUN SUNANDHA RAJABHAT UNIVERSITY Somdech Rungsisawat & Khatcharin Thapthimthet	331
KNOWLEDGE MANAGEMENT FOR THE GUIDELINES OF INFORMATION RESOURCE ACQUISITION: A CASE OF ACADEMIC RESOURCE CENTER, SUAN SUNANDHA RAJABHAT UNIVERSITY Nitima Kaewmanee, Ganratchakan Ninlawan & Prapat Pawinun	337
DEVELOPMENT OF THE “I” SYSTEM FOR THE CORRECTION OF INTERNET LEARNING VIA THE INTERNET SUAN SUNANDHA RAJABHAT UNIVERSITY Somdech Rungsisawat & Pinyaphat Kongsorn	343
TECHNIQUE OF FOLLOW UP ON WORK PROGRESS IN OFFICE ADMINISTRATION Nipawan Tharasak & Sittichai Thammasane	348
KNOWLEDGE ON FOLLOWING-UP AND RECORDING ACCORDING TO PERSONNEL DEVELOPMENT TRAINNING Khwanchai Sukkon & Supassawee Morakul	354
PROBLEM-BASED LEARNING WITH MATHEMATICS TEACHING : PRINCIPLES AND GUIDELINES Teerawit Tinprapa	359
MERITS AND DEMERITS OF DECENTRALISATION IN HIGHER EDUCATION: A CASE STUDY OF ONE HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA Cishe, Elphinah Nomabandla	364
CHANGES OF NATIONALISM AND WORLD ORDER IN LANGUAGE POLICY: MANDATORY SWEDISH LANGUAGE STUDY IN FINLAND Janne Väistö, PhD-student	365
THE EFFECT OF JOINT AUDIT ON AUDIT QUALITY: EMPIRICAL EVIDENCE FROM COMPANIES LISTED ON THE EGYPTIAN STOCK EXCHANGE Mahmoud Ghanem Mahmoud, Abd El Wahab Nasr Ali and Hebatallah Abd El Salam Badawy	366
PARENTAL EDUCATION BACKGROUND AND STUDY MATERIALS AS CORRELATES OF ACADEMIC PERFORMANCE OF SECONDARY STUDENTS IN ABIA STATE Beatrice Okore Ogbonnaya	367
THE EFFICACY OF EXPLICIT INSTRUCTION ON IMPLICIT AND EXPLICIT KNOWLEDGE OF ENGLISH ARTICLES Faten A. Alarjani	368
RBL : THE DEVELOPMENT OF LEARNERS' LEARNING SKILLS Teeraporn Plailek	378

THE NATURE AND USE OF RESEARCH-BASED LEARNING FOR ENHANCING PRE-SERVICE TEACHERS' RESEARCH SKILLS	384
Sasiporn Phongploenpis	
KNOWLEDGE MANAGEMENT FOR PROCESS DEVELOPMENT: INFORMATION RESOURCES CLASSIFICATION AND CATALOGING IN THE LIBRARY OF SUAN SUNANDHA RAJABHAT UNIVERSITY	390
Supaporn Wongsa, Supaporn Jaisook, Ganratchakan Ninlawan and Sirilak Ketchaya	
THE STUDY OF TECHNOLOGY ASSISTED OFFICE ADMINISTRATION OF SUAN SUNANDHA RAJABHAT UNIVERSITY	395
Suntaree Patcharaprateep, Pornkiat Phakdeewongthep & Wannee Sutthachaidee	
THE EXPOSURE AND SATISFACTION OF THE GRADUATE STUDENTS FOR THE CHANNAL OF THE INFORMATION AT SUANSUNANDHA RAJABHAT UNIVERSITY	399
Phakit Treesakult & Netdao Yooyong	
FLIP IT AROUND: THE POSITIVE IMPACT THAT THE REFINED FLIPPED CLASSROOM MAY HAVE ON REDUCING THE BLACK ASIAN MINORITY ETHNIC (BAME) ATTAINMENT GAP	404
Charles Wild	

## 2017 ICBTS CONFERENCE BERLIN PROGRAM

<b>The 2017 ICBTS International Multidiscipline Research Conference</b>	
<b>23 October 17</b> 9.00- 09.30 (M)	<b>REGISTRATION &amp; WELCOME</b> Welcome meeting at The Park Inn by Radisson Berlin City West, Germany
	<b>Academic Advisory &amp; Session Chair</b> Professor Dr. Kai Heuer, Germany Dr. Hen Friman, Israel
<b>23 October 17(M)</b>	<b>Session A</b>
<b>23 October 17(M)</b> 09.00-10.30 (M)	<p><b>Session A1</b></p> <p><b>Paper 1(23)</b> DEVELOPMENT FOR 21<sup>ST</sup> CENTURY SKILLS BY USING PROCESSES OF RESEARCH BASED LEARNING Asst. Prof. Poonyapon Chanfoy</p> <p><b>Paper 2(24)</b> ACTIVE LEARNING BY USING PROCESSES OF PROBLEM BASED LEARNING Asst. Prof. Suphanwadee Waiyaroop</p> <p><b>Paper 3(27)</b> ORGANIZED ACTIVE LEARNING BY INSTRUCTIONAL MODEL WITH PROJECT BASED LEARNING Asst. Prof. Sirimaneer Banjong</p> <p><b>Paper 4(29)</b> PARTICIPATORY LEARNING: FROM THEORY TO PRACTICE IN PSYCHOLOGY FOR TEACHER COURSE Mr. Panuwat Sivaskunraj</p> <p><b>Paper 5(35)</b> PROBLEM-BASED LEARNING WITH MATHEMATICS TEACHING: PRINCIPLES AND GUIDELINES Mr. Teerawit Tinprapa</p> <p><b>Paper 6(132)</b> LANGUAGE TEACHING AND LEARNING OPINIONS ON CULTURAL DIVERSITY Awwal Ibrahim Dansadau</p>
10.31 - 10.45	Morning Break
10.46 - 12.00	<p><b>Session A 2</b></p> <p><b>Paper 1(36)</b> RB : THE DEVELOPMENT OF LEARNERS' LEARNING SKILLS Mrs. Teeraporn Plailek</p> <p><b>Paper 2(37)</b> THE NATURE AND USE OF RESEARCH-BASED LEARNING FOR ENHANCING PRE-SERVICE TEACHERS' RESEARCH SKILLS Dr. Sasiporn Phongploenpis</p> <p><b>Paper 3(33)</b> TECHNIQUE OF FOLLOW UP ON WORK PROGRESS IN OFFICE ADMINISTRATION Miss Nipawan Tharasak</p> <p><b>Paper 4(39)</b> THE STUDY OF TECHNOLOGY ASSISTED OFFICE ADMINISTRATION OF SUANSUNANDHARAJABHAT UNIVERSITY Miss Suntaree Patcharaprateep</p>

	<p><b>Paper 5(144)</b> Examining Motivation to Teach Levels of Pre-Service Teachers in Terms of Some Variables Ipek Som Onal</p>
12.01-13.00	<b>Lunch Break</b>
13.01-15.00	<p><b>Session A 3</b></p> <p><b>Paper 1(9)</b> ACTING AS A TOOL TO EXPRESS POWER OF MEDIUM Dr. Kusuma Teppharak</p> <p><b>Paper 2(10)</b> EQUIPMENT DESIGN TO CREATE TIE-DYE FABRIC PATTERN Mr. Tanutpong Phriwanrat</p> <p><b>Paper 3 (11)</b> WICKERWORK PROCESS ANALYSIS APPLY FOR HOME DECORATION DESIGN: PRANEE HANDICRAFT SING BURI THAILAND Mr. Akapong Inkuer</p> <p><b>Paper 4 (12)</b> SOUVENIRS DESIGN FROM ARTS AND CULTURAL Mr. Noppadon Sangwalpetch</p> <p><b>Paper 5(13)</b> THAI PERFORMING ARTS IN KING PRAJADHIPOK'S LAWS Asst. Prof. Manissa Vasinarom</p> <p><b>Paper 6(116)</b> ESL Basic Learners: Personal Histories of Writing Ketskanda Jaturongkachoke and Supat Kookiattokoon and Supamit Chanseawrassamee</p> <p><b>Paper 7(150)</b> Feasibility Study of Implementation of Coaching in Training of Nurses in Bahman hospital in Tehran (IRAN) Associate Prof. Dr. Mohammad Ghahramani and Fatemeh Hydari</p> <p><b>Paper 8(127)</b> Renewable Energy by Project-based learning Hen Friman and Idan Halbi and Ifaa Banner and Bosmat Shalom-tuchin and Yulia Einav</p>
15.00- 15.15	<b>Afternoon Break</b>
15.16- 17.00	<p><b>Session A 4</b></p> <p><b>Paper 1 (14)</b> FABRIC PRINTING DESIGN OF SARONG AS A RESULT OF A STUDY OF TEXTILE PATTERNS OF LAO-SONG (THAI SONG DAM), SUPHAN BURI PROVINCE Mr. Suwit Sadsunk</p> <p><b>Paper 2 (15)</b> THE ART OF THE FABRIC PATTERN DESIGN BY STUDYING THE WOODEN CARVING ON GINGERBREAD IN VIMANMEK MANSION IN THAILAND Mrs. Chanoknart Mayusoh</p> <p><b>Paper 3 (17)</b> A WESTERN TREATMENT OF NONWESTERN NATIONAL IDENTITY: A CASE STUDY OF <i>THE KING AND I</i> Asst. Prof. Dr. Chutima Maneewattana</p> <p><b>Paper 4 (16)</b> MAINTAINING SIGNIFICANCE OF REALIA IN TRANSLATED PLAY Dr. Nataporn Rattanachaiwong</p> <p><b>Paper 5(40)</b> THE EXPOSURE AND SATISFACTION OF THE GRADUATE STUDENTS FOR THE CHANNEL OF THE INFORMATION AT SUANSUNANDHA RAJABHAT UNIVERSITY Miss Netdao Yooyong</p> <p><b>Paper 6(128)</b> AN EVOLUTION PERSPECTIVE ON THE ROLE OF UNIVERSITIES IN REGIONAL INNOVATION</p>

	<p>Jong-Ho LEE</p> <p><b>Paper 7(124)</b> PLANNING SCHOOL FEEDING POLICY TOWARDS ECONOMIC DIVERSIFICATION IN AFRICA Shuaibu Saminu</p>
23 October 17(M)	<b>Session B</b>
23 October 17(M) 09.00-10.30 (M)	<p><b>Session B1</b></p> <p><b>Paper 1(1)</b> “SPIRITUAL TOURISM” THE NEW TOURIST DESTINATION FOR THAI TOURISM CASE STUDY IN “WAT TATON” CHAING-MAI THAILAND Dr. Supakit Mulpramook</p> <p><b>Paper 2 (3)</b> THE STUDY ON MEDIA EXPOSURE BEHAVIOR IN POLITICAL ISSUES OF UNIVERSITY STUDENTS Mr. Veerapon Vongprasert</p> <p><b>Paper 3 (5)</b> THE STUDY OF THE PARTICIPATION OF THE PRESIDENT OF STUDENT COUNCIL ELECTION, UNDERGRADUATE PROGRAM, SUAN SUNANDHA RAJABHAT UNIVERSITY Asst. Prof. Dr. Sudabhorn Arundee</p> <p><b>Paper 4 (8)</b> ROLE OF PROVINCIAL GOVERNOR IN CONTROL OF LOCAL ADMINISTRATION ORGANIZATIONS : CASE STUDY NONGBUALAMPHU PROVINCE Dr. Barameeboon Sangchan</p> <p><b>Paper 5 (18)</b> FINANCIAL STABILITY IN SAMUT SONGKRAM FROM HOUSEHOLD SAVING POTENTIAL Dr. Krisada Sungkhamanee</p> <p><b>Paper 6 (104)</b> THE IMPACT OF “PIPELINE DIPLOMACY” ON CONFLICT RESOLUTION IN THE CAUCASUS-CASPIAN REGION-THE CASE OF AZERBAIJAN AND AFGHANISTAN Dogan Girgin</p>
10.31 - 10.45	<b>Morning Break</b>
10.46 - 12.00	<p><b>Session B 2</b></p> <p><b>Paper 1 (21)</b> HOTEL BUSINESS DEVELOPMENT WAY TO REACH SERVICE STANDARD FOR SUPPORTING SENIOR TOURISTS IN THE AREA OF AMPHAWA DISTRICT, SAMUTSONGKRAM Miss Benjaporn Yaemjamuang</p> <p><b>Paper 2 (22)</b> KNOWLEDGEMANAGEMENT FOR WRITING RESEARCH PROPOSAL Miss Wanvisa Saisanan Na Ayudhaya</p> <p><b>Paper 3 (26)</b> UNIVERSAL DESIGN FOR WARD PATIENTS GOVERNMENT HOSPITAL Mrs. Jitravadee Roongin Kunkar</p> <p><b>Paper 4 (2)</b> THE DIFFERENCES OF SOCIAL AND POPULATION FACTORS TOWARDS TOURISTS’ ATTITUDES TO STAYING AT GREEN HOTELS IN BANGKOK Dr. Rumpapak Luekveerawattana</p> <p><b>Paper 5 (111)</b> MEDIATISATION OF URBAN PLANNING AND THE PUBLIC SPHERE: TOWARDS ENABLING AND JUST PLANNING PROCESS CASE OF EGYPT Mennatullah Hendawy</p>

12.01- 13.00	<b>Lunch Break</b>
13.01-15.00	<p><b>Session B 3</b></p> <p><b>Paper 1 (30)</b> THE DEVELOPMENT OF ONLINE ADMISSION FOR GRADUATE STUDENTS, SUAUN SUNANDHA RAJABHAT UNIVERSITY Miss Khatcharin Thapthimthet</p> <p><b>Paper 2 (28)</b> ORGANIZED ACTIVE LEARNING BY CREATIVE BASED LEARNING Mrs. Chompunuj Limlertmonkol</p> <p><b>Paper 3 (31)</b> KNOWLEDGE MANAGEMENT FOR THE GUIDELINES OF INFORMATION RESOURCE ACQUISITION: A CASE OF ACADEMIC RESOURCE CENTER, SUAN SUNANDHA RAJABHAT UNIVERSITY Acting Sub Lt. Nitima Kaewmanee</p> <p><b>Paper 4 (19)</b> VITAL FACTORS OF RECENTLY GRADUATES FOR APPLYING JOBS IN ASEAN LABOR MARKET Dr. Natnaporn Aeknarajindawat</p> <p><b>Paper 5 (25)</b> KNOWLEDGE MANAGEMENT: GUIDE TO WRITE A RESEARCH PROPOSAL Miss Yanika Chuentako</p> <p><b>Paper 6 (34)</b> KNOWLEDGE ON FOLLOWING-UP AND RECORDING ACCORDING TO PERSONNEL DEVELOPMENT TRAINNING Miss Supassawee Morakul</p> <p><b>Paper 7 (114)</b> AGRICULTURAL TRADE UNDER WTO REGIME: OPPORTUNITIES AND CHALLENGES Dr. MOHD ADIL</p> <p><b>Paper 8 (115)</b> RACE OF RELIGIONS AND THE RICE OF RADICALISM IN WEST PAPUA INDONESIA Umar Werfete and Suparto Iribaram</p>
15.01 - 15.15	<b>Afternoon Break</b>
15.16 - 17.00	<p><b>Session B 4</b></p> <p><b>Paper 1(7)</b> DEVELOPMENT OF A SOLUTION TO THE TRAFFIC ISSUES INSIDE SUAN SUNANDHA RAJABHAT UNIVERSITY Mr. Wichar Kunkum</p> <p><b>Paper 2 (6)</b> THE STUDY OF SATISFACTION OF THE DEVELOPMENT OF GRADE VALIDATION SYSTEM BASED ON CURRICULUM STRUCTURE, UNDERGRADUATE STUDENTS, SUAN SUNANDHA RAJABHAT UNIVERSITY Miss Wanwika Sattaworn</p> <p><b>Paper 3 (32)</b> DEVELOPMENT OF THE “I” SYSTEM FOR THE CORRECTION OF INTERNET LEARNING VIA THE INTERNET SUAN SUNANDHA RAJABHAT UNIVERSITY Miss Pinyaphat Kongsorn</p> <p><b>Paper 4 (38)</b> KNOWLEDGE MANAGEMENT FOR PROCESS DEVELOPMENT: INFORMATION RESOURCES CLASSIFICATION AND CATALOGING IN THE LIBRARY OF SUAN SUNANDHA RAJABHAT UNIVERSITY Miss Supaporn Wongsu</p> <p><b>Paper 5 (4)</b> THE STUDY OF APPLICANTS’ SATISFACTION OF UNIVERSITY ADMISSION SYSTEM : UNDERGRADUATE LEVEL, SUAN SUNANDHA RAJABHAT UNIVERSITY Miss Chontiya Ledanan</p>

	<p><b>Paper 6 (116)</b> THE EFFECTIVENESS OF USING GAMES IN LEARNING ENGLISH VOCABULARY: AN ANALYTIC IN THE SAUDI ARABIAN CONTEXT Ayedh Dhawi Mohammed Almohanna, Saudi Arabia</p> <p><b>Paper 7 (133)</b> SOCIAL MEDIA AND ARABIC: CODE-SWITCHING AMONGST ALGERIAN STUDENTS LIVING IN THE UK Linda Merzougui</p>
<b>24 October 17(T)</b>	<b>Session C</b>
24 October 17 (T) 09.30 – 10.30	<p><b>Session C1</b></p> <p><b>Paper 1(48)</b> GERMAN LEADERSHIP IN EU FOREIGN POLICY AFTER EUROZONE CRISIS? Merve Yavuz</p> <p><b>Paper 2 (7)</b> CULTURAL AND ART EDUCATION: A MEANS FOR SOCIAL STABILITY IN NORTHERN GHANA Dr. Eric Appau Asante and MAVIS DONKOR</p> <p><b>Paper 3 (53)</b> INNOVATIVE ACADEMY PROJECT -DISINFECTION OF EFFLUENTS WITH RENEWABLE ENERGY Hen Friman and Faina Nakonechny</p> <p><b>Paper 4 (61)</b> EDUCATION, BUSINESS AND AGRICULTURE: AN INTEGRATION FOR ECONOMIC TRANSFORMATION IN DEVELOPING NATIONS- THE NIGERIAN EXPERIENCE Dr. Matthew Ojong Achigbe</p>
10.31 – 10.45	Morning Break
10.46 - 12.00	<p><b>Session C2</b></p> <p><b>Paper 1(57)</b> EXPLORING THE EFFECT OF TECHNOLOGY SUPPORTED COLLABORATIVE LEARNING ON CREATIVE THINKING SKILLS OF PRE-SERVICE TEACHERS Erhan ÜNAL and Fatih ÖZDİNÇ</p> <p><b>Paper 2 (64)</b> ASTIN THEORY AND SOCIAL NETWORKS Dr Elham Akbari and prof Hamid Abdollahian</p> <p><b>Paper 3 (50)</b> EFFECT OF PAUL THE PERSIAN'S LOGICAL WORKS ON AL-MANTIQ BY IBN AL-MUQAFFA Seyedmohammadreza Azarkasb</p> <p><b>Paper 4 (136)</b> THE NECESSITY OF REGIONAL ECONOMIC INTEGRATION: A LESSON FOR SOUTH ASIA? Md. Rajin Makhdum Khan and Faizah Imam</p> <p><b>Paper 5 (137)</b> AN INVESTIGATION OF SENSORY LEARNING STYLES USED BY KURDISH EFL STUDENTS AT UNIVERSITY LEVEL Dr. Hoshang Farooq Jawad and Mr. Salahaddin Saeed Khidr</p>
<b>24 October 17(T)</b>	<b>Session E</b>

<p>24 October 17 (T) 09.30 – 10.30</p>	<p><b>Session E1</b>  <b>Paper 1(141)</b> TOURISM STRATEGY IN THE SUN TRIANGLE ANALYSIS WITH THE THEORY BASED ON RESOURCES AND INSTITUTIONAL THEORY  José G. Vargas-Hernández and Lic. Ana Yanetly Arias Orozco, Mexico  <b>Paper 2 (144)</b> CONTRADICTIONS AMONG STUDENTS OF BEING MALES AND FEMALES IN LEARNING ENGLISH AS A FOREIGN LANGUAGE.  Amina Babou, Algeria  <b>Paper 3 (145)</b> THE RELATIONSHIP BETWEEN SYSTEM OF SUGGESTIONS AND THE PRODUCTIVITY OF HUMAN RESOURCES: A CASE STUDY OF TEHRAN PROVINCE GASCO  Ali Aolatshah, Iran  <b>Paper 4 (120)</b> BLEMISHES IN SYLLABUS DESIGNING OF ENGLISH AT PRIMARY LEVEL OF EDUCATION IN PAKISTAN: AN OBSTACLE IN ATTAINING LANGUAGE PROFICIENCY  Zohaib Zahid and Dr Mamuna Ghani, Pakistan</p>
<p>10.31 – 10.45</p>	<p style="text-align: center;">Morning Break</p>
<p>10.46 - 12.00</p>	<p><b>Session E2</b>  <b>Paper 1 (158)</b> TRAVELING THROUGH THE TOURISM PROMOTION TERMINOLOGY: CONSIDERATIONS UPON THE ADOPTION OF ENGLISH TERMS IN THE OFFICIAL WEBSITES OF ROME, MILAN, LUGANO AND BELLINZONA.  Claudia Maria ASTORINO  <b>Paper 2(31)</b> ADVANCING SUSTAINABLE AGRO-TOURISM IN THE WESTERN BALKANS: INSIGHTS FROM THE KATUN PROJECT  Djurdjica Perovic and Sanja Pekovic andTatjana Stanovcic andJovana Vukcevic, Montenegro  <b>Paper 3 (163)</b> SHARING ECONOMY: THE ESTABLISHMENT OF ORGANIZATIONAL IDENTITY OVERTIME, CONSIDERING IDENTIFY CLAIMS AND LEGITIMACY GRANTING  João Miguel O. Cotrim and Prof. Francisco Nunes  <b>Paper 4 (143)</b> REGENERATING PATRIARCHY: A STUDY ON GEORGE ORWELL'S VIEWS ON WOMEN AND FEMALE CHARATER  Khaled Zouaoui  <b>Paper 5 (154)</b> SATISFACTION OF INDIVIDUAL LEARNING NEEDS IN THE INTEGRATED TEACHING/LERNING MODEL IN PRIMARY SCHOOL  Professor Anita Petere</p>
<p>12.01</p>	<p style="text-align: center;"><b>Conference Close</b></p>
<p><b>23 -24 October 17</b></p>	<p style="text-align: center;"><b>Participation and Discussion</b></p> <ol style="list-style-type: none"> <li>1. Dr. Mustafa Arslan., Georgia,</li> <li>2. Dr. Dr Olufemi Aramide, Nigeria</li> <li>3. Dr. Asif Iqbal, China</li> <li>4. Professor Wang Zhuquan, China</li> <li>5. Dr. Sumit Kumar dey, India</li> </ol>
<p><b>25 October 2017</b></p>	<p style="text-align: center;"><b>Free day for Participants</b></p>

# **RBL : THE DEVELOPMENT OF LEARNERS' LEARNING SKILLS**

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## **ABSTRACT**

This article illustrated the development of learners' learning skills using Research-Based Learning. It described the meaning of Research-Based Learning and four different models of Research-Based Learning: research-tutored learning, research-based learning, research-led learning, and research-oriented learning which guiding principles in teaching and learning management. Moreover, this article presented the implementation of Research-based learning in teaching and learning. From the studying of research's findings, it found that the learners gained research knowledge and research skills and also knowledge of the subject they are taught.

The key issues to be addressed are the learner's learning skills which are derived from the Research-Based Learning. The findings showed that the learners will have self-directed skill, analytical thinking skills, systematic thinking skills, problem solving skills, research skills, life and social skills, and working skills that suit to the 21<sup>st</sup>-century skills of learners.

Keyword: RBL, learners' learning skills

## **INTRODUCTION**

Nowadays, Thai society has entered the digital world, transformed and developed in many aspects, including economics, society and education as well as human resource development, which human resources are considered as a powerful force in driving and developing the country. Quality human resource development is one of the key factors that must be developed in order to upgrade human resource quality to be equivalent to that of other countries.

The Thai education system has continuously developed its education system, with the concept of developing the learner to be able to fit in the context of the global society, whether it is child-centered education or 21<sup>st</sup>-century skills are taught by the concept of Active Learning which emphasizes learning by learners. Learners are self-directed learners who change the role of the learner from the original. Passive becomes the active participants. The instructor must be responsible for preparing the experience for the learners. Learners learn a variety of learning management models, such as Creative-Based Learning (CBL), Participatory Learning (PL), Problem-Based learning (PBL), and Research-Based Learning (RBL). Each concept of Active Learning will help to create different skills for learners. One learning management model that empowers learners to create their own knowledge, learn from research, and discover facts by self-study, create thinking skills, and acquire knowledge and working skills is Research-Based Learning.

In this paper, we propose a Research-Based Learning (RBL), which is a learning management model based on Active Learning. RBL will help students to develop the skills and knowledge they need in the 21<sup>st</sup> century, which is the direction of the current development of education in Thailand.

## **OBJECTIVE**

To point out the development of learners' learning skills derived from Research-Based Learning.

## METHODOLOGY

### The Components of Research-Based Learning (RBL)

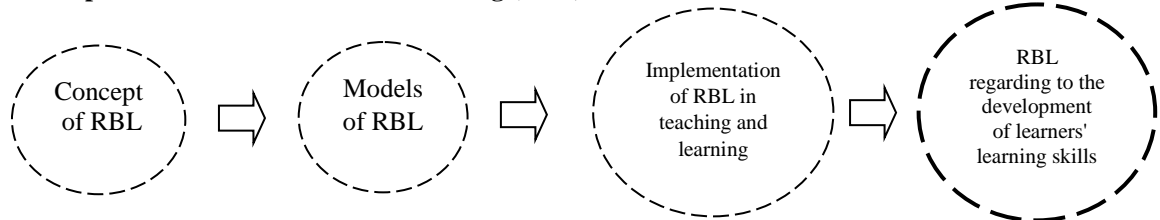


Figure 1: The components of Research-Based Learning (RBL)

### The concept of RBL

RBL or Research-Based Learning is one of the learning model based on the theory of learning constructivism, the emphasis is that learning is a process that takes place within the individual. The learner is the creator of knowledge through the process of intellectual structure and the integration of pre-existing knowledge with newly gained experience, resulting in self-thinking (Nakorntup, 2004). Research-Based Learning is the combination of teaching and research, blended harmoniously to provide students with both the knowledge and desirable characteristics as illustrated in Figure 2.

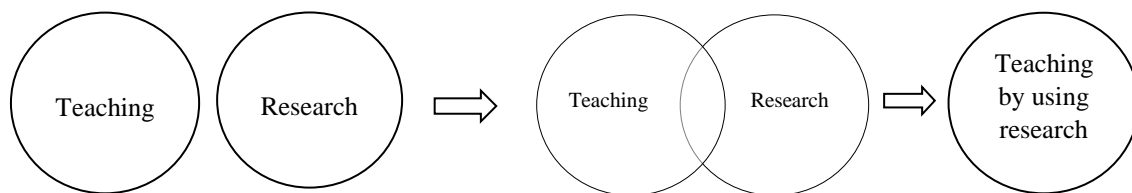


Figure 2: The concept of RBL

In addition, Research-Based Learning is based on an inquiry teaching method that emphasizes the student's suspicion of investigating, experimenting, and discovering the answers on their own, focusing on the process of searching and examining knowledge. Investigative teaching requires learners to learn by the problem which encourages learners to seek information for solving problems. In addition, learners must learn primarily by themselves (Methakunavudhi, 2002). Thus, the use of Research-Based Learning is a process of teaching and learning that emphasizes the learner's ability to learn from the study and discover the facts of self-study through systematic research or it can be said that Research-Based Learning model is a research process as a part of the learning process.

### The models of the relationship between teaching and research

There are four models of the relationship between teaching and research in the following ways (Hoskins & Mitchell, 2015) :

	Emphasis on research content	Emphasis on research processes
Students are active	<b>Research-tutored</b> <i>students are analysing, discussing and writing papers</i>	<b>Research-based</b> <i>inquiry-based learning</i>
Students are passive	<b>Research-led</b> <i>students are taught subject content</i>	<b>Research-oriented</b> <i>students are taught processes of knowledge construction</i>

Figure 3: The models of the relationship between teaching and research

- Model 1: Research-tutored learning - curriculum structured around subject content; focus – analyzing and discussing research findings;
- Model 2: Research-based learning - curriculum designed around inquiry-based activities; focus – learning through inquiry;
- Model 3: Research-led learning - based on the ‘information transmission’ model; curriculum structured around subject content; focus – understanding research findings;
- Model 4: Research-oriented learning - curriculum structured around research processes as well as subject content; focus – understanding research processes, teaching inquiry skills and research ethos

### The implementation of RBL in teaching and learning

#### Model 1: Research-tutored learning

The teaching style in which the learners use research findings in learning. They are as follows:

1. The instructor gives advice on the information resources of research papers that the learners will need to search for knowledge and also selects the research papers appropriate for the age of the learners.
2. The learners seek information about research related to the subject matter of their interest.
3. The instructor introduces how to read, study, analyze, report research as appropriate to the level of learners including elements of research, objectives, research methodology and conceptual framework, research findings, and references, etc.
4. The learners study various research papers by practicing the above learning skills.
5. The learners present the subject matter of the research linked to the subject matter being learned.
6. The instructor and the learners discuss research findings and research processes, and the importance of the research.
7. The instructor measures and evaluates reading skills, learning the research findings and research processes.

#### Model 2: Research-based learning

The teaching styles in which the learners use research process in learning. They are as follows:

1. The instructor considers and analyzes the objectives and contents of the learning units so that the learners are able to do research papers.
2. The instructor designs learning activities that allow the learners to conduct research, encourages the learners to be interested in the subject and gives the learners the ideas of the research titles they are interested in.
3. The learners study the research process, including identifying research problems, objectives, hypothesis, research design, research methodology, data collection, analyzing data, summarizing

the findings, discussing findings, etc.

4. The learners conduct researches based on appropriate research procedures.
5. The learners record thoughts and experiences as well as observations, the instructor observes the learner's behavior and the learners' research process skills.
6. The instructors and learners discuss the research process and findings together.
7. The instructor measures and evaluates the learners' skills in conducting researches, and results obtained with the evaluation of the learner's normal learning.
8. Self-assessment in reading skills on research reports, research findings, and research processes.

### **Model 3: Research-led learning**

Teaching style in which the instructor uses research findings in learning management. They are as follows:

1. The instructor searches for resources related to the subject matter taught, studies the research or knowledge related to content, and chooses the research that best suits the subject and the learner's age.
2. The instructor uses the findings of the research along with the content for teaching to enhance the learners' knowledge.
3. The instructor and the learners collectively discuss research findings, research processes and research benefits.
4. The instructor measures and evaluates learners' learning outcomes.

### **Model 4: Research-oriented learning**

The teaching styles in which the instructor uses research process in learning management. They are as follows:

1. The instructor considers the purpose and the content that will be provided to learners including analysis of the research process that will be used in teaching, which may be used in some steps of research processes or all steps.
2. The instructor designs learning activities using the research process defined for learning the desired subject.
3. The instructor conducts learning activities using the research process, including identifying research problems, objectives, hypothesis, research design, research methodology, data collection, analyzing data, summarizing the findings, discussing findings, etc.
4. The instructors and the learners discuss issues related to research processes
5. The instructors measure and evaluate learning the research findings and research processes, along with the regular assessment of student learning.

Based on four models above, the instructor can apply any models by selecting the appropriate one for learning management. More importantly, it is considered to develop the learners' learning skills in all kinds of research skills, self-directed learning skills, thinking skills, and collaborative skills.

### **RBL regarding to the development of learners' learning skills**

Research findings related to RBL management are reported. The findings of these research papers reflect the development of learners' learning skills as follows:

C. Warea (2015) found that the students' academic scores after learning by using research were higher than the pre-test scores at the .05 level corresponds to S. Siriworasin (2014) found that the posttest scores of Mathayom Suksa 2 students learning by using baseline learning were significantly higher than those before

the study. The statistical significance was at .05 and the students had a high level of research ability after learning by using baseline research and consistent with F. Fachaiyaphum (2011), who found that students learning by using Research-Based Learning, where there was a significantly higher level of learning and creativity than students with normal learning management at .03 level of significance. S. Suwatanpornkool (2008) found that students who study under the integrated learning management plan. Local students using the research process had a higher average score on life skills than the students in the normal classroom learning program. W. Munephol (2004) found that Research-Based Learning encourages students to have a learning habit, know the idea, have social skills, work with others, and solve the problems. And the results also found that students study in a Research-Based Learning management will have academic ability, thinking skills, knowledge acquisition, and working skills. Moreover, the characteristics of being good citizens are higher than that of students in traditional learning schools. Healey (2005) found that University students will learn and deeply understand the content of the investigated learning that links research and teaching into the curriculum.

Based on the above research, it can be seen that the RBL will lead to the development of learners as follows: self-directed skill, analytical thinking skills, systematic thinking skills, problem solving skills, research skills, life and social skills, and working skills.

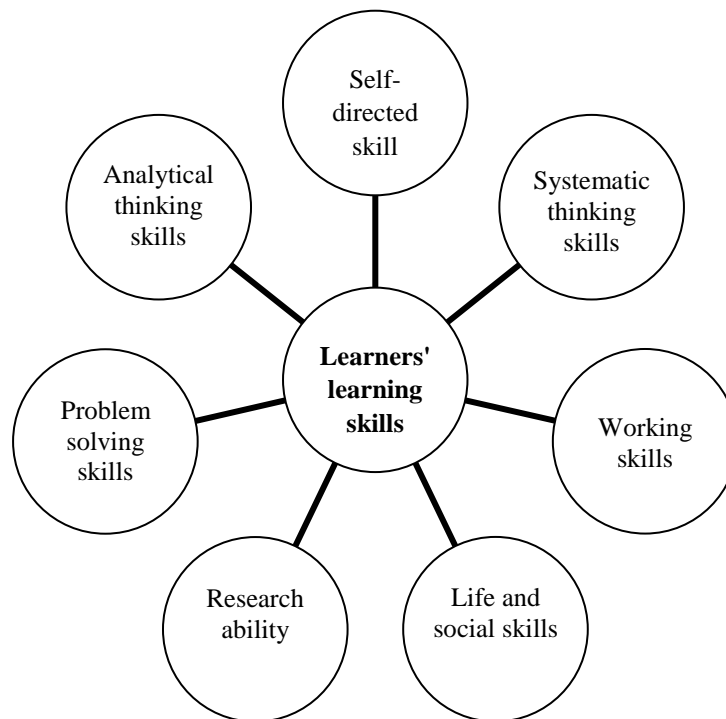


Figure 4: Learners' learning skills derived from using RBL

### CONCLUSION

The instruction by using Research-Based Learning will help develop learners' learning skills. Learners will have the skills to seek knowledge, create self-knowledge and continuing to learn which is also called lifelong learning. The most important is Thai educational system should reform the education system by transforming from the traditional learning management to Active Learning. Consequently, it can help develop learners to have the potential to learn and have learning skills. It can be seen that learning only the content is not an important goal of teaching and learning in the era of educational reform anymore.

### ACKNOWLEDGEMENT

The author would like to thank the Research and Development Institute, Suan Sunandha Rajabhat University, Bangkok, Thailand for financial support.

## REFERENCES

- [1] Fachaiyaphum, K. (2011). Comparisons of Learning Achievement on Food and Nutrition, Analytical Thinking and Creative Thinking of Prathomsueksa 5 Students Who Learned Using Research-Based Learning and Traditional Learning Approaches. Faculty of Education, Mahasarakham University.
- [2] Healey, M. (2005). Linking research and teaching to benefit student learning. Retrieved June 15, 2009, from <http://web.ebscohost.com/ehost/pdf?vid=6&hid=114&sid=a3c78014-e3e9-4cf6-988bbe87278e27a3%40sessionmgr102.Learning>.
- [3] Hoskin, S., & Mitchell, J. (2015). Innovative pedagogies series: Research-based learning, taking it a step further. Retrieved from [http://www.heacademy.ac.uk/system/files/sherria\\_hoskins\\_final.pdf](http://www.heacademy.ac.uk/system/files/sherria_hoskins_final.pdf).
- [4] Methakunavudhi, P. (2002). Research-Based Instruction. In Sinlarat, P. (editor), *The Review of Research-Based Instruction Articles*, (21-37). Bangkok: Faculty of Education, Chulalongkorn University.
- [5] Munephol, W. (2004). A Comparative Study of the Elementary Education Students Characteristics between Research Based Learning Schools and Regular schools. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education, Program in Educational Research, Faculty of Education, Chulalongkorn University.
- [6] Nakorntup, A. (2004). Learning Through Research: A Case Study of The Education and Society Class, Faculty of Education, Chulalongkorn University
- [7] Siritworasin, S. (2014). The development of learning achievement on production of goods and services and research abilities of Mathayomsuksa 2 students using research-based learning. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree Master of Education Program in Teaching Social Studies Department of Curriculum and Instruction, Graduate School, Silpakorn University.
- [8] Suwatanpornkool, S. (2008). Research and Development of Learning Management Plans Integrating Local Content Using Research-Based Process to Develop Life Skills of Elementary School Students. A thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education, Program in Educational Research, Faculty of Education, Chulalongkorn University.
- [9] Watee, C., Ontkwanmuang, K. and Chanfoy, P. (2015). A Classroom Research Skills Development of Suan Sunandha Rajabhat University' Students by Research Based