



10TH INTERNATIONAL CONFERENCE

AC-ESI-2017

ACADEMIC
CONFERENCE ON
EDUCATIONAL &
SOCIAL INNOVATIONS



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SUAN-SUNANDHA RAJABHAT UNIVERSITY,
BANGKOK, THAILAND

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ECONOMY AND PUBLIC ADMINISTRATION
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Dear ladies and gentlemen, participants of Academic Conference on Educational & Social Innovations, academics and scholars, presenters of research centers, educational institutes and business!

In the era of globalization, spreading of modern knowledge and forms of education, re-evaluation of human resources for global competitiveness and self-sufficiency, an effectiveness of international collaboration in discussing on actual educational and social issues and challenges, searching for maximum effective solutions of local, regional and global development is timely increasing.

And I would like to express my deep gratitude to partnered journals, educational institutions of Thailand, Russia, Ukraine, Indonesia, Hungary and other countries whose efforts made possible this meeting of scholars and businessmen, interested in effective solution of global economy challenges using local resources of competitiveness and economical, social, cultural and innovative success.

And, of course, I would like to thank all participants for coming here, for their wonderful and useful research. I want to say, that Suan Sunandha Rajabhat University – as a leading public University of Thailand – is very proud to be an organizer of this significant and important conference.

To each participant I wish success, finding a new colleagues and friends, development of scientific and business contacts, new scientific discoveries that are benefit for society, business and government. And also enjoy your time in “golden city of Prague”.

*Dr. Luedech Girawichai, professor
President of Suan Sunandha Rajabhat University
Bangkok, Thailand*

On behalf of the Organizational Committee, I welcome you to the 2017 Academic Conference on Educational & Social Innovations, in the world most beautiful and interest city of Prague! Our conference always attracts researchers, educators and practitioners in all economic fields and related disciplines in the world.

Participants have found in these meetings an excellent opportunity to share their experiences with colleagues from distance places and often continued to cooperate with them on their subjects of interest.

The AC-ESI – 2017 has been established on a global basis. We have received more than 90 submissions from 7 countries, each submission was peer-reviewed by at least two anonymous reviewers and a total of 55 papers were accepted for presentation in the conference.

Accepted papers are scheduled for presentation in 6 sessions. We would like to express our sincere appreciation to all the reviewers and chairs and members of various committees of AC-ESI -2017 conferences for their precious time and expertise. The welcoming dinner provides the opportunity to honor the best papers and to recognize the contributions of many of the people who made this meeting possible.

Lastly, I would like to express our sincere gratitude to everyone involved in making the joint conference a success. Many thanks go to the organizing committee, keynote speaker and special session organizers, and the organizational committees and reviewers, the conference participants, and of course, to all the contributing authors who will be sharing the results of their research. It is our great pleasure to have you with us at the joint conference, where I hope new ties will be made and existing ones renewed and strengthened.

Please accept our best wishes for a wonderful stay in Prague!

*Asst.Prof.Dr. Krongthong Khairtee
Director (Dean) of International college
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Bangkok, Thailand*

Dear friends and colleagues!

This conference is a meaningful crystallization of international initiatives among the number of institution towards practical cooperation in interdisciplinary studies, which will be contribute to the strengthening of the national educational systems.

The characteristic of the education in our era is change at the speed of light, which led us to the consensus that experts from many countries and many different disciplines must meet and discuss the phenomena, and then suggest solutions. We should be able to delve deeper by discussing problems across different disciplines as widely as possible, and thus grasping more profound solutions and suggestions.

The motivation for this conference is to help one's country through offering individual expertise and point of view based on one's individual discipline. As we gather from many different countries and many different disciplines, I believe that we should be able to expand the scope of our efforts and must aim at more challenging global contributions.

I hope all the participants of this conference will enjoy and get opportunities to enhance relationships of knowledge exchange.

I would like to extend my sincere gratitude to the organizing committee and especially to my Thai colleagues for given abilities to be a co-organizer and member of organizational board of AC-ESI – 2017, to be involved in the process of new international tradition formation!



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BRIDGING THE GAP BETWEEN THEORY AND PRACTICE THROUGH
CREATIVITY AND INNOVATION

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Science, technology and IT knowledge is increasing at a faster and faster rate and hence selection of content, for curricula and assessments, should not be based solely on fundamental knowledge for fear that science and technology, relevant to society issues and concerns, does not get taught. Rapid advancement in science, technology and IT has increased the need for further innovation, challenge to inventions, psychological discoveries of nature of individual differences and emphasis on actualization. This has resulted in an increase in interest for the creativity aspect in the past decades. If a nation is to survive in international competition, the most promising solution is for the nation to encourage and support the identification and development of highly creative persons. There are ongoing efforts to bridge the gap between academic theory and practice by development of creativity and bringing into the classroom issues which are of current significant important to daily life. It is widely recognized that 'hands-on' activities through practical work, are essential component of learning, in order to gain experience in learning process. Some creative 'hands-on' activities will also be demonstrated and discussed.

Introduction

The declaration from the World Conference on Education for All held in Jomtien (Thailand 1990) stressed that sustainable development depends on a scientifically and technologically literate population. After that many regional and international activities have taken place. The most prominent was the World Conference on Science (Budapest 1999), which clearly stressed "the urgent need to renew, expand and diversify basic science education for all, with emphasis on scientific and technological knowledge and skills needed to participate meaningfully in the society of the future." The International Conference on Science, Technology and Mathematics Education for Human Development (Goa 2001), and the World Conference on Science and Technology Education (Penang 2003) identified the "urgent need to reshape Science and Technology Education, with special emphasis on the most critical needs, problems and expectations of the learners, for example on the formation of open and critical thinking and improving people's ability to meet the challenges of the 21st century."

Although there are many examples of practical applications for teaching in the 21st century, students often find the material too abstract, too difficult to master when it is presented in lecture. In order to bridge the theory-practical gap, a good interactive multimedia combined with creative hand-on activities and creative problem solving in the new curriculum and assessment will provide students with a far better understanding than just a straight-forward classroom presentation.

Bringing Knowledge to Everyone through Creativity and Innovation

Promoting education and culture accessible to all, in a comprehensive form are necessary inputs relevant to all peoples in this fast changing world. Teachers and administrators need the cooperation of parents and other community members in making sure that what children learn in school is brought to their homes and applied to their daily lives. Curriculum developers should be trained to make education more relevant to the perceived needs and interests of students, reflecting a balance view of the importance and functioning of industry and giving an awareness of careers; and meeting the needs of society and the culture by ensuring curricula match 'standards' for literacy in terms of (i) conceptual development, (ii) learning process, (iii) personal development, (iv) cooperative and communication skills, as well as (v) socio-scientific values, all carefully screened to be appropriate for the students' aptitude, prior learning/age and social environment.

Parents are more concerned about their children's scores in examinations, rather than what the student has learned and apply in their day to day activities. Opportunities that allow students to think critically are few. Very little opportunity is provided to acquire relevant and useful competencies and skills to apply knowledge in real life and to develop creativity. We are now in the world of information. The curriculum developers in each country have to choose what should be put into the national curriculum and why it is important for their own countries. Creativity development has to be introduced in the classroom.

Creativity is a natural function of the mind. It's not something of talent. Everybody is creative or at least capable of developing creativity. Creativity is now a universal discourse. It has been harnessed to improve productivity, to generate individual innovations and to improve relations in the community through the promotion of collaborative and creative teamwork. Personal creativity has been shown to be empowering. It is used as a problem solving strategy, as an aesthetic interpretation and as a way of expressing life's experiences. Its role in education and learning has always been recognized. Increasingly, the importance of creativity for economic development, through both commercial and social enterprise, and its crucial role in the improvement of quality of life is being acknowledged. Creativity is seen as a defining characteristic of the world culture in the twenty first century, and its continuation as essential for our future. Millions of websites mention about creativity in different ways. Creativity has probably been as important as any human quality in changing history and reshaping the world. UNESCO (1974) is positive in its stand that both knowledge and creativity are useful in itself but they are also indirect contributors to international understanding and peace. Rapid advancement in science and technology has increased the need for further innovation, challenge to inventions, psychological discoveries of nature of individual differences and emphasis on actualization. This has resulted in an increase in interest for the creativity aspect in the past decades. If a nation is to survive in international competition, the most promising solution is for the nation to encourage and support the identification and development of highly creative persons. Nations which learn best how to identify develop and encourage creativity in their people, especially amongst children, may find themselves in a very advantageous position. The table 1 below shows the information about the patent counts by country. This may indicate the productivity of the nation according to creativity and innovation. The upper part of the Table 1 shows the data for the US and top ten countries, the lower part shows data for ASEAN countries.[1]

Origin	2011	2012	2013	2014	2015
Total, U.S.					
And Foreign Origin	247728	276796	302962	326038	325979
JAPAN	48256	52773	54170	56005	54422
GERMANY	12967	15041	16605	17595	17752
KOREA, SOUTH	13239	14168	15745	18161	20201
TAIWAN	9907	11624	12118	12255	12575
UNITED KINGDOM	4908	5874	6551	7158	7167
FRANCE	5023	5857	6555	7103	7026
CANADA	5756	6459	7272	7692	7492
ITALY	2333	2546	2930	3033	3090
SWITZERLAND	1865	2039	2466	2601	2841
NETHERLANDS	2048	2193	2571	2842	2788
SINGAPORE	696	841	857	1010	1048
MALAYSIA	181	219	230	271	267
THAILAND	73	46	104	125	116
PHILIPPINES	30	46	34	45	45
INDONESIA	11	12	15	15	21
VIET NAM	0	4	10	7	5
BRUNEI	0	0	0	0	0
CAMBODIA	0	0	0	0	0
LAOS	0	0	0	0	0
MYANMAR	0	0	0	0	0

Table 1. Patent Counts by Country and Year - All Patent Types (December 2015)
U.S. Patent and Trademark Office, Electronic Information Products Division
PTMT P.O. Box 1450, Alexandria, VA 22313-1450, U.S.A.[1]

Characteristics of Creative People

Creativity can be considered to be a process. Two stages are involved in creativity process - (i) The first stage is to shake and throw things together and to choose and discriminate from a variety of different possibilities and (ii) The second stage is to synthesize and bring together elements in new and original ways. Creativity can be thought to be embedded in the product rather than in the process. In other words, creativity is the quality which leads to the production of something new desirable. Creativity can also be defined in terms of certain mental abilities. There are probably hundreds of definitions of creativity. Some are simple, some are light-hearted, some are serious, some are technical and some are very complicated. But all of them seem to show that creativity is about making connections where none existed before.

Children who amaze their teachers with unusual responses to questions or display a keen sense of humor are thinking creatively. Even children who perhaps are nonconforming and unpredictable are thinking creatively. Because creative thought often goes against the set rules of a strict classroom or home, adults may be irritated by the behavior of a creative child. Adults often do not recognize the value creative children bring to families and classrooms.

All children become adults who will make a difference in our world with their creative problem-solving skills.

Though every child is creative to some degree yet some children are more creative than the others. The following are some of the characteristics by virtue to which children with better aptitude for creativity can be identified.

- They are more self-sufficient and more independent in judgment.
- They are less teachers motivated and more self-motivated. In other words, they are energetic.
- They are more self-assertive, more resourceful and adventurous and more radical.
- They are more self-controlled and possibly more emotionally sensitive and more introvert but bold. They have sense of humour.
- They opt for usual and kinaesthetic means over auditory ones while engaged in learning.
- They choose some sound over complete quiet while concentrating or studying.
- They like to study alone rather than with classmates and grown ups. They have confidence.
- They are curious.
- They are idealistic.

Teachers and parents can help children learn to think and solve problems in creative ways by giving them the freedom to make mistakes and by respecting their ideas. This happens with greater mobility and use of language through modelling and being allowed to experiment without fearing failure.

To solve a problem creatively, children need to be able to see a variety of perspectives and to generate several solutions. When working on a problem, adults should teach young children to examine their surroundings for "cues" that will help them generate a pool of possible solutions.

Creativity Development

Edward de Bono [2] said that "Creative is not a talent; it is a skill that can be learnt. It empowers people by adding strength to their natural abilities which improves teamwork, productivity and where appropriate – profits." Creativity cannot be taught but can be developed in children by using planned strategies and techniques. Divergent thinking aspects can be stimulated amongst the students who do not apparently show it. The role of the teachers or instructors is very important for fostering creativity among pupils.

- These are tips for parents and teachers to help children think creatively
- Arouse curiosity.
 - Challenge.
 - Avoid projects that can be completed in only one way (paint-by-numbers, kits to be assembled, for example).
 - Make a wide variety of materials available to children.
 - Suggest options, but let children make the final decisions.
 - Ask children to tell you about the work (as opposed to guessing, possibly incorrectly, from an adult's point of view).
 - Praise the effort, use of color, and uniqueness rather than just the final product - the trip is more important than the destination.

- Encourage individual expression.

Avoid the regimented use of materials and adult-directed projects. A classroom full of samples of individual creativeness indicates that the teacher has given children choices and has focused on the process rather than the product. According to Yew Kam Keong [3], there are five steps to develop creativity.

1. Knowledge : acquire diverse knowledge utilizing all the five senses
2. Thinking : Think deeply
3. Incubation : Relax and do something unrelated to the problem
4. Eureka! : I found it! Moment of Inspiration
5. Development : Developing ideas into useful and practical applications

Thomas Edison believed that all ideas were manipulations and extensions of previous ideas. The SCAMPER creative thinking technique [4] is a great way to manipulate and transform existing ideas into newer, better ideas.

S substitute comes up with another topic that is equivalent to the present topic.

C ombine adds information to the original topic.

A djust identifies ways to construct the topic in a more flexible and adjusted material.

M odify creatively changes the topic.

P ut to other uses identifies the possible scenarios and situations where this topic can be used.

E liminate removes ideas or elements from the topic that are not valuable.

R everse, rearrange evolves a new concept from the original concept.

The biggest thing holding most people back from being creative is the belief that people are born creative geniuses. Thomas Edison is an example of someone who didn't have much schooling, but nevertheless learned to use his mind in a truly creative and productive way. We can all learn to be immensely creative, and that it is just a matter of learning some creative thinking techniques and disciplining our minds to practice creative habits

In order to increase the productivity of the nation in the modern world, it is very important to integrate the teaching and learning in science and mathematics with emphasis on all of the skills needed in 21st Century. There are ongoing efforts to bridge the gap between academic theory and practice by development of creativity and bringing into the classroom issues which are of current significant important to daily life. It is widely recognized that 'hands-on' activities through practical work, are essential component of learning, in order to gain experience in learning process. Creative trainings with advanced information technology have been conducted intensively in many countries.[5,6]

Conclusion

The basic foundation for education in general, science and technology education in particular, recognizes the contribution from the Four Pillars of Learning: Learning to Be, Learning to Know, Learning to Do and Learning to Live Together, in promoting literacy for all. The Challenge to change will arouse our CREATIVITY for personal and national development and result in an innovation for the productivity mentioned earlier.

References:

U.S. Patent and Trademark Office, Electronic Information Products Division

- PTMT P.O. Box 1450, Alexandria, VA 22313-1450, U.S.A.
Edward de Bono, Thinking Course: BBC Active, an Imprint of Educational Publisher LLP., England, 2006.
- Yew Kam Keong, You are Creative: let your creativity bloom (2nd ed.), Mindbloom, Kuala Lumpur 2001,
- Michael Michalko , Thinkertoys: A Handbook of Creative-Thinking Techniques (2nd Edition), Ten Speed Press, New York 2006.
- Krongthong Khairire, Creative Thinking in Mathematics with Tangrams and The Geometer's Sketchpad: Proceedings of the 20th Asian Technology Conference in Mathematics, Leshan, China, 2015.
- 6] Janchai Yingrayoon, Creative Mathematics Hands-on Activities in the Classroom: 13th International Congress on Mathematical Education, Hamburg, 24-31 July 2016

INNOVATIVE CLIMATE AS A FACTOR FOR NATIONAL EDUCATION SYSTEM PROGRESS (THE CASE OF THAILAND)

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Intellectualization of manufacturing and formation of national innovative system are now the major factors in national competitiveness and positioning in the international division of labor. Innovations today are especially important for the successful catch-up of countries. Among them we can include Thailand, which has both its own set of social and cultural benefits for the implementation of innovative strategies and a number of characteristics, reducing the prospects of innovative progress.

This study includes an analysis of social, cultural and economic features of innovative-investment climate improvement in Thailand; recommendations concerning the principles of innovation progress strategy in the Kingdom; discusses the problems of integration of Thai national innovation system in global high-tech production and in the global market for innovative products and technologies. The findings and recommendations contained in the study are also based on the results of a Thai younger generation survey, which considers the current state and prospects for innovative development of the country.

Keywords: innovative modernization, strategy of innovative progress, national innovative system, innovation and investment process

INTRODUCTION

In modern conditions, an innovative progress is the most important source for economic progress, which proves up to 75% of the GDP growth in some countries (for example, Western Europe, USA, Japan), reduces the national economies dependence on the fluctuations of world prices for resources, opens a new direction and reserves for further development [Auzan, A., Arkhangelsky, A. & Lungin, P. (2011). P. 15-29].