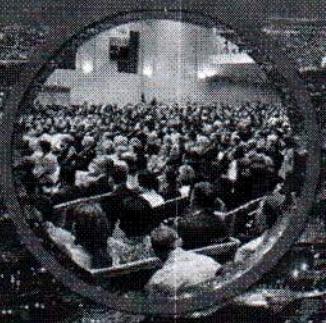
9th

WORLD CONFERENCE ON EDUCATIONAL SCIENCES

World Conference on Educational Sciences (WCES-2017)

01-04 February 2017
Hotel Aston La Scala
Convention Center
Nice, France



Proceedings Book Part II

9th World Conference on Educational Sciences (WCES-2017)

www.wces.info

01-04 February 2017
Hotel Aston La Scala Convention Center

Nice – France

PROCEEDINGS BOOK

Part II

Editor in Chief
Prof. Dr. Steven M. Ross, Johns Hopkins University, USA

Editors
Prof. Dr. Jesús García Laborda, Univesity of Alcala, Spain
Prof. Dr. Huseyin Uzunboylu, Near East University, Cyprus

Publisher Contact
SciencePark Science, Organization and Counseling LTD.
13 Subat Street, No: 17, 99030
Kyrenia – Cyprus

E-mail: info@sproc.org
Tel: +90 5338366993
Fax: +90 3928157195
www.sproc.org

Editorial Contact
Huseyin Uzunboylu
Near East University, Faculty of Education
Department of Educational Sciences
Nicosia, Cyprus
Tel. +90 392 6802000 - 111

Editorial Assistant
Zeynep Genç

Technical Staff
Semih Çalışkan
Yücehan Yücesoy
Meltem Haksiz
Vasfi Tugun
Basak Baglama

Proofreading
Minaketan Patra
creativewriters.world@gmail.com

Cover Design
Semih Çalışkan
Azmiye Yinal

Message from the Guest Editors

It is the great honor for us to edit proceedings of "9th World Conference on Educational Sciences (WCES-2017)" held on February 01-04 February 2017, at the Hotel Aston La Scala Convention Center Nice – France. This privileged scientific event has contributed to the field of educational sciences and research for nine years.

As the guest editors of this issue, we are glad to see variety of articles focusing on the curriculum and instruction, educational technology, educational administration, guidance and counselling, educational planning, measurement and evaluation, learning psychology, developmental psychology, instructional design, learning and teaching, special education, distance education, lifelong learning, mathematics education, social sciences teaching, science education, language learning and teaching, human resources in education, teacher training, pre-school education, primary school education, secondary school education, vocational education, college and higher education, learner needs in the 21st century, the role of education in globalization, human rights education, democracy education, innovation and change in education, new learning environments, environmental education, professional development, nursery education, health education, sport and physical education, multi-cultural education, mobile learning, music education, art education, history education and etc.

Furthermore, the conference is getting more international each year, which is an indicator that it is getting worldwide known and recognized. Scholars from all over the world contributed to the conference. Special thanks are to all the reviewers, the members of the international editorial board, the publisher, and those involved in technical processes. We would like to thank all who contributed to in every process to make this issue actualized. A total of 100 full papers or abstracts were submitted for this conference and each paper has been peer reviewed by the reviewers specialized in the related field. At the end of the review process, a total of 38 high quality research papers were selected and accepted for publication.

I hope that you will enjoy reading the papers.

Guest Editors

Prof. Dr. Steven M. Ross, *Johns Hopkins University*, USA

Prof. Dr. Jesús García Laborda, *Univesity of Alcala*, Spain

Prof. Dr. Huseyin Uzunboylu, *Near East University*, Cyprus

WCES-2017

Organized by
Alcala University
Near East University
University of Kyrenia
Academic World Education and Research Center
Association for Human, Science, Natura, Education and Technology

Honorary Chair
Steven M. Ross, *Johns Hopkins University*, USA

Chair
Jesús García Laborda, *University of Alcalá*, Spain

Co-Chair
Conchi San Martín, *University of Barcelona*, Spain
Teresa Magal-Royo, *Polytechnical University of Valencia*, Spain

International Program Committee

Counseling and Guidance
Kobus Maree, *Pretoria University*, South Africa

Educational Technology
Huseyin Uzunboylu, *Near East University*, Cyprus

Assessment and Evaluation in Education
Ali Baykal, *Bogazici University*, Turkey,

Curriculum and Instruction
Cem Babadoğan, *Ankara University*, Turkey,

Special Education
Anastasia Alevriadou, *University of Western Macedonia*, Greece

Social Sciences Education
Çiğdem Hürsen, *Near East University*, North Cyprus

Environmental Education
Kamisah Osman, *Universiti Kebangsaan*, Malaysia

Educational Administration and Supervision
Özge Hacıfazlıoğlu, *Bahcesehir University*, Turkey

Foreiging Language Learning and Teaching
Ali Rahimi , *University of Bankong*, Thailand

Mathematics and Science Education
Murat Tezer, *Near East University*, North Cyprus

Gifted Child Education
Deniz Ozcan, Near East University, North Cyprus

Educational Psychology
Jongho Shin, Seoul National University, South Korea

Arts Education
Ayse Cakir Ilhan, *Ankara University*, Turkey

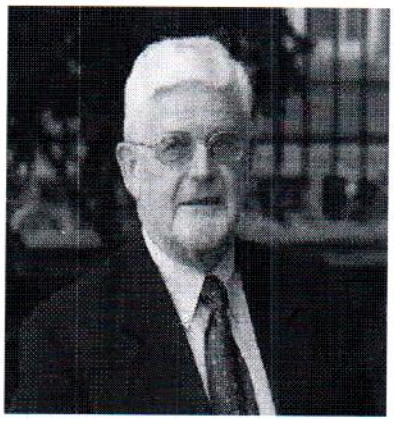
Local Organization Committee
Ana Pavón Sevilla, *University of Alcalá*, Spain
Begoña Montero, *Universidad Politécnica de Valencia*, Spain
Jesús de la Fuente Arias, *University of Almería*, Spain
Julia Haba Osca, *University of Alcalá*, Spain
Mary Frances Litzler, *University of Alcalá*, Spain

Secreteriat
Nazlı Uzunboylu, *Manchester Metropolitan University*, UK
wces.info@gmail.com

Previous Conferences
2016, Madrid, Spain
2015, Athens, Greece
2014, Valletta, Malta
2013, Rome, Italy
2012, Barcelona, Spain
2011, Istanbul, Turkey
2010, Istanbul, Turkey
2009, Kyrenia, Cyprus

International Scientific Committee
Ekkehard Nuissl, *University of Kaiserslautern*, Germany
Habil Simona Sava, *West University of Timisoara*, Romania
Alejandro Iborra Cuéllar, *University of Alcala*, Madrid, Spain
Ali Baykal, *Bahcesehir University*, Turkey
Ayşe Çakır İlhan, *Ankara University*, Turkey
Bekir Özer, *Eastern Mediterranean University*, North Cyprus
Carmen Pérez-Sabater, *Universidad Politécnica de Valencia*, Spain
Fatoş Silman, *Cyprus International University*, Cyprus
Gönül Akçamete, *Near East University*, Cyprus
Gul Celkan, *Middle Georgia State College*, USA
Gülsün A. Baskan, *Hacettepe University*, Turkey
Ferhan Odabaşi, *Anadolu University*, Turkey
Hafize Keser, *Ankara University*, Turkey
Jacobus G. Maree, *University of Pretoria*, South Africa
Jan Parker, *Open University*, UK
Jean Underwood, *Nottingham Trent University*, UK
Dr. Kinshuk, *University of North Texas*, USA
Maria Helena Esteves, *University of Lisbon*, Portugal
Marilyn Campbell, *Queensland University of Technology*, Australia
Mehmet Çağlar, *Near East University*, North Cyprus
Mehmet Gürol, *Fırat University*, Turkey
Nejdet Osam, *Eastern Mediterranean University*, North Cyprus
Nick Rusby, *British Journal of Educational Technology*, UK
Servet Bayram, *Yeditepe University*, Turkey
Carmen Pérez Sabater, *Universitat Politècnica de València*, Spain
Demet Erol Öngen, *Akdeniz University*, Turkey
Mohammad H. Yarmohammadian, *Isfahan University of Medical Sciences*, Iran
Nadire Çavuş, *Near East University*, North Cyprus
Zehra Özçinar, *Atatürk Teacher's Academy*, North Cyprus
Ahmet Güneyli, *Near East University*, North Cyprus

KEYNOTES



Erik De Corte

Center for Instructional Psychology & Technology (CIP&T University of Leuven, Belgium

Bio: Erik De Corte is Emeritus Professor (of Educational Psychology) in the Faculty of Psychology and Educational Sciences at the University of Leuven, Belgium where he chaired from August 1994 till July 1998 the Department of Educational Sciences. His major research interest is to contribute to the development of theories of learning from instruction and the design of powerful learning environments, focusing thereby on learning, teaching, and assessment of thinking and problem solving. He was the first President (1985-1989) of the European Association for Research on Learning and Instruction (EARLI). During the academic year 2005-2006 he stayed as a Fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford.

Keynote Title: "Learning design: Creating powerful technology-supported learning environments"

Abstract: The interdisciplinary research in the learning sciences has and still does substantially contribute to meet the current need for new environments for learning by developing and elaborating new perspectives on the ultimate goal of school education, and on the nature of learning to achieve this goal. In this presentation I will first briefly review such a perspective. Against this background I will discuss the current state-of-the-art of the use of technology for learning in today's classrooms, its shortcomings and needed directions for the future. This will be followed by the presentation of an example of learning design, namely a design experiment in which technology was used productively in fifth- and sixth-grade classrooms in the format of computer-supported collaborative learning. In the last part I will focus on the latest cutting-edge use of educational technology, namely the MOOCs (Massive Open Online Courses).

Ramanathan Subramaniam

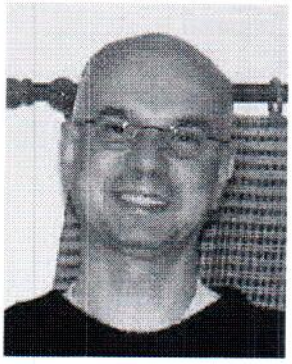
National Institute of Education

Nanyang Technological University, Singapore

Bio: Dr. R. Subramaniam is an Associate Professor at the National Institute of Education in Nanyang Technological University in Singapore. He has previously held the administrative appointments of Associate Dean (Educational Research) and Associate Dean (Graduate Academic Programs) at the Institute. His current research interests are in the areas of science education, physics education, chemistry education, STEM education, primary science education, informal science education and science communication. Publications number over 100, and this comprises 75 papers in peer-reviewed international journals, 40 peer-reviewed chapters in edited books of international publishers, 6 books published by international publishers and 3 guest-edited special issues of international journals. He has successfully graduated 5 PhD and 10 Master's degree students in various areas of science education.

Keynote Title: "Informal science education: Why the role of science centers will become even more important in the future"

Abstract: Informal science education is a key avenue through which many people, including students, enhance their learning beyond the formal science curricula. There are several approaches for fostering informal science education – for example, via television, newspapers, magazines, World Wide Web, science centers /science museums, etc. This presentation will focus more on the role of science centers in reaching out to the public through exhibitions, enrichment programs, promotional activities and other means. In particular, I argue that the institutional mechanisms for the promotion of informal science education by science centers provide a platform to reach out to many people, thus contributing towards sensitizing them to not only fundamental knowledge in the sciences but also other developments in science and technology. Linkages between science centers and schools have great potential to bridge the nexus between formal and informal science education sectors. While science centers are common in the developed world, there are very few science centers in the developing world. I also argue that there is a need for more science centers to be set up in developing countries so as to boost science literacy levels as well as foster public understanding of science. Findings on research on science centers from the author's research group are also shared in this presentation.



Dr. Manuel Roblizo Colmenero
Universidad de Castilla La Mancha – Madrid
Keynote Title: "Information and communication technologies applied to educational practice: the transit from the myth to reality"

Bio: Dr. Manuel Roblizo Colmenero is a lecturer in Sociology in the Faculty of Education of Albacete, University of Castilla-La Mancha, Spain. He holds a BA Philosophy degree from Universidad de Valencia, PhD in Political Sciences and Sociology from UNED and BSc (Honors) Social Sciences with Sociology from The Open University.

Keynote Title: "Information and communication technologies applied to educational practice: the transit from the myth to reality"

Abstract: All through the last decades, the progressive implementation of information and communication technologies has occurred in educational practices all around the world. From the very beginning of the process, a number of expectations arose focused as much on the desirable increase in students' involvement as on their potential growth in achievement. Nowadays social scientists and analysts have at their disposal a really wide empirical evidence that makes possible an effective assessment about what has actually changed in education due to the impact of new technologies. Our purpose is to pose this topic for discussion, founded on the findings of the different reports that international institutions provide to the educational community. Given its comparative nature, it is possible to transcend every country's context and go beyond frontiers in order to highlight what is underlying in this new reality.

Nicole BIAGIOLI
Université Sophia Antipolis – France

Bio: Nicole Biagioli is full professor at Université Sophia Antipolis, Nice. Specialist of French language and literature, she was among the first persons in France to introduce creative writing in language learning methodology and assessments. She is currently the director of a laboratory of Education sciences: I3DL EA 6308, involved in researches about an interdidactical approach of learning act. Interdidactical approach tries to highlight interdependency of subject matters, educational partners and psychological, social and cognitive aptitudes, as a common origin both of the schooling process and the school stereotyping.

Keynote Title: "School violence through contents taught in school: implications for teachers and learners"

Abstract: School violence has been one of the most frequently studied subjects for about ten years with educational inequalities in the literature of educational research. We are among the people who think that the two subjects are not without links between them. So we have been led to wonder whether school itself was not partly responsible of violent behavior of human beings that it hosts. We hypothesize that school itself creates a climate of violence because of its structure and functioning. This specific form of violence is more dangerous that the ordinary one, because it is invisible. Either victims or executioners internalize it, or they are not even aware of it. We will study this violence of the school in four main domains: educational theories, educational methods, taught contents, and assessments. For each, we shall propose corresponding figures of resilience and repair.

CONTENTS

Risk-based ranking for selecting key issues in professional development course

Korawin Kungwola[a*], International Collage, Rajabhat University, 10100, Bangkok, Thailand.
Napat Harnpornchai[b], Faculty of Economics, Chiang Mai University, 10100, Bangkok, Thailand.

Suggested Citation:
Kungwola, K. & Harnpornchai, N. (2017). Risk-based ranking for selecting key issues in professional development course.

Selection and peer review under responsibility of Jesus Garcia Laborda, University of Alcala, Spain

Abstract

The professional development plays an important role for maintaining and/or improving organization performance. It is natural that there can be a large numbers of issues to be considered in the courses of professional development and it is not always possible to solve all issues at the same time. Accordingly, the issues to be developed needed to be ranked and solved in a consecutive manner. In this paper, a simple methodology of issue ranking based on a risk metric is proposed. The methodology is comprised of two main steps. The first step is the determination of issues to be considered in the course of professional development. This is accomplished using the questionnaires. The questionnaires are given to the workers who have been involving the works of interest with long experiences. In other words, the workers have comprehensive knowledge, specifically tacit knowledge, about the works. Every acquired issue is then scored by each experienced worker. The scoring is performed based on a risk metric. The total score for the same issue is determined from all worker responses. Finally, the scores for all issues from all workers are compared and ranked. The issues with high risk-based scores are then proposed to be considered first for the course of professional development.

Keywords: Professional development, risk-based ranking, expert.

* ADDRESS FOR CORRESPONDENCE: **Korawin Kungwola**, International Collage, Rajabhat University, 10100, Bangkok, Thailand.
E-mail address: k.korawin@gmail.com / Tel.: +66 2 350 3501

1. Introduction

The professional development plays an important role for maintaining and/or improving organization performance. For examples, competency of people who provide service is a deciding factor in choosing low-cost airlines. Regarding the professional development, it is natural that there can be a large number of course to be considered in the professional development and it is not always possible to offer all courses at the same time due to the time and budget constraints. Accordingly, the courses needed to be ranked.

This work introduces a systematic methodology of prioritizing courses of interest. The methodology employs risk as a measure of importance. The assessment of the risk magnitude is carried out by experts in the development areas. A scoring table for risk determination is also proposed.

After this introduction section, the proposed methodology will be next described. The clarification of the methodology is done by means of illustrative example. Concluding remarks are given at the end.

2. Proposed methodology

The courses to be offered are elicited from the experts in the profession. The role of expert elicitation plays an important role in reliable design [2]. The experts must, of course, belong to the organization, not the outsiders because the latters are not in the organization operation and environment. The experts are expected to have long experiences in the relevant areas to be improved. Each expert is given with the so-called risk assessment table (see Table 1).

Table 1. Risk Assessment Table

Course	Level of Use Frequency (F) (1-10: 1 for never and 10 for always)	Level of Damage (if not offered) (D) (1-10: 1 for minimum and 10 for maximum)	Risk = F x D

The Risk Assessment Table comprises of Course, Level of Use Frequency (F), Level of Damage (D), and Risk. The elicitation process is in the form of interview in which only a specific numbers of courses are required from the experts, e.g. 5 courses. The elicited courses are not necessarily the same for each expert. The courses from all experts are collected and put in the Risk Assessment Table. It is emphasized that all courses are considered. Every expert is then given with a Risk Assessment Table which contains the same course titles.

Then each expert fills in the Risk Assessment Table for the columns of Level of Use Frequency and Level of Damage while the last column of Risk is obtained from computation. It is noted that the column Level of Use Frequency defines the frequency of the real operation corresponding to the course and the column Level of Damage signifies the level of negative effects if the workers are not competent enough in that operation. The Risk is defined as the product between the Level of Use Frequency and the Level of Damage. This definition is in accordance with [3]. The respective Risk scores are summed up from all experts. Finally, all courses are ranked according to their scores from

maximum to minimum ones. The courses with higher scores will be selected as first priorities to be offered in the professional development program.

Next section illustrates the proposed methodology via examples

3. Illustrative example

1. The example shows the selection of courses for improving in-flight operations. Suppose there are three experts, namely A, B, and C. Each expert is interviewed to specify 5 courses that he/she consider important. The following are the exemplified courses from the respective experts:

Expert A:

1. First-aid
2. Service
3. Public Announcement
4. Crew Resource Management
5. Handling of Emergency Situation

Expert B:

1. Self-defence
2. Position Transition
3. Job Motivation
4. Public Announcement
5. Service

Expert C:

1. First-aid
2. Service
3. Self-defence
4. Handling of Emergency Situation
5. Public Announcement

It should be noted that there are some repeated course titles from all experts from the eliciting interview above. All course titles will be put into the Risk Assessment Table (see Table 2). There are altogether 8 courses from all 3 experts

Table 2. Risk Assessment Table with elicited course titles

Course	Level of Use Frequency (F) (1-10: 1 for never and 10 for always)	Level of Damage (if not offered) (D) (1-10: 1 for minimum and 10 for maximum)	Risk = F x D
1. First-aid			
2. Service			
3. Public Announcement			
4. Crew Resource Management			
5. Handling of Emergency Situation			
6. Self-defence			
7. Position Transition			
8. Job Motivation			

The Risk Assessment Table with elicited course titles as shown in Table 2 is then distributed to each expert. The experts are requested to fill in the table. The exemplified results are given in Table 3 to Table 5 below.

Table 3: Risk Assessment Table from Expert A

Course	Level of Use Frequency (F) (1-10: 1 for never and 10 for always)	Level of Damage (if not offered) (D) (1-10: 1 for minimum and 10 for maximum)	Risk = F x D
1. First-aid	2	10	20
2. Service	10	5	50
3. Public Announcement	2	4	8
4. Crew Resource Management	4	4	16
5. Handling of Emergency Situation	2	10	20

6. Self-defence	1	10	10
7. Position Transition	3	6	18
8. Job Motivation	8	2	16

Table 4. Risk Assessment Table from Expert B

Course	Level of Use Frequency (F) (1-10: 1 for never and 10 for always)	Level of Damage (if not offered) (D) (1-10: 1 for minimum and 10 for maximum)	Risk = F x D
1. First-aid	3	10	30
2. Service	10	5	50
3. Public Announcement	1	5	5
4. Crew Resource Management	2	2	4
5. Handling of Emergency Situation	2	10	20
6. Self-defence	2	8	16
7. Position Transition	4	4	16
8. Job Motivation	8	2	16

Table 5. Risk Assessment Table from Expert C

Course	Level of Use Frequency (F) (1-10: 1 for never and 10 for always)	Level of Damage (if not offered) (D) (1-10: 1 for minimum and 10 for maximum)	Risk = F x D
1. First-aid	3	10	30
2. Service	10	4	40
3. Public Announcement	1	4	4
4. Crew Resource Management	1	2	2
5. Handling of Emergency Situation	1	10	10
6. Self-defence	1	8	8
7. Position Transition	1	6	6

8. Job Motivation	4	4	16

The risk magnitude of each course title is summed up from all 3 experts. The result is given in Table 6.

Table 6. Results from all experts

Course	Risk Score (Expert A)	Risk Score (Expert B)	Risk Score (Expert C)	Total Risk Scores
1. First-aid	20	30	30	80
2. Service	50	50	40	140
3. Public Announcement	8	5	4	17
4. Crew Resource Management	16	4	2	22
5. Handling of Emergency Situation	20	20	10	50
6. Self-defence	10	16	8	34
7. Position Transition	18	16	6	40
8. Job Motivation	16	16	16	48

Ranking of courses according to the total Risk Scores yields:

1. Service
2. First-aid
3. Handling of Emergency Situation
4. Job Motivation
5. Position Transition
6. Self-defence
7. Crew Resource Management
8. Public Announcement

As a result, the professional development should start from Service to First-aid, Handling of Emergency Situation, Job Motivation, Position Transition, Self-defence, Crew Resource Management, and to Public Announcement, respectively.

4. Conclusions

Kungwola, K. & Harnpornchai, N. (2017). Risk-based ranking for selecting key issues in professional development course.

The professional development plays an important role for maintaining and/or improving organization performance. It is natural that there can be a large numbers of course to be considered in the professional development and it is not always possible to offer all courses at the same time due to the time and budget constraints. This work introduces a systematic methodology of prioritizing courses of interest. The methodology employs risk as a measure of importance. The assessment of the risk magnitude is carried out by experts in the development areas. The Risk is defined as the product between the Level of Use Frequency and the Level of Damage. The Level of Use Frequency defines the frequency of the real operation corresponding to the course and the Level of Damage signifies the level of negative effects if the workers are not competent enough in that operation. The courses with higher scores will be selected as first priorities to be offered in the professional development program. The methodology is realized through the proposed Risk Assessment Table. It is shown that the ranking for selecting key issues in professional development course becomes simplified via such a Risk Assessment Table.

References

Kungwola, K. (2016). An Investigation of Service Marketing Mix of Low-Cost Airlines: A Case of International Passengers. Proceedings of 4th International Conference ACE+2016 Actual economy: Local solutions for Global Challenges, Copenhagen, Denmark.

Bedford, T., Quigley, J., and Walls, L. (2006). "Expert Elicitation for Reliable System Design Statistical Science." Statistical Science, Vol. 21, No. 4, pp. 428–450.

Wilson, R., and Crouch, E.A.C., (1982). Risk-Benefit analysis Cambridge, MA: Ballinger.

ISO (2009). *Risk Management – Principles and guidelines*, ISO 31000:2009.