



Certificate



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"Improving The Quality Of Educational Research And Innovation
Towards The 21st Century Industrialization Era"
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Program Book



The 6th
International Conference On
Educational Research and Innovation

IMPROVING THE QUALITY OF EDUCATIONAL RESEARCH AND INNOVATION TOWARDS THE INDUSTRIALIZATION ERA IN THE 21ST CENTURY



Improving The Quality Of Educational Research And Innovation Towards Industrialization Era In The 21st Century

Institute of Research and Community Services Yogyakarta State University

August 30 - 31, 2018



PROGRAM BOOK

INTERNATIONAL CONFERENCE ON EDUCATIONAL RESEARCH AND INNOVATION (ICERI 2018)

Improving the Quality of Educational Research and Innovation towards the Industrialization Era in
the 21st Century

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Institute of Research and Community Services Yogyakarta State University

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**RUNDOWN OF THE 6TH INTERNATIONAL CONFERENCE
ON EDUCATIONAL RESEARCH AND INNOVATION (ICERI 2018) UNIVERSITAS NEGERI YOGYAKARTA**
 “Improving Quality of Educational Research and Innovation towards the Industrialization Era in the 21st Century.”
 August 30 – 31, 2018

Thursday, August 30, 2018

TIME	AGENDA	PRESENTER	VENUE
07.30-08.00	Registration		
08.00-08.30	Conference Opening		Ballroom
08.30 – 10.00	Keynote Speech 1	1. Ir. Agustina Erni, M.Sc. Deputi Bidang Kesetaraan Gender. Plt. Deputi Bidang Partisipasi Masyarakat. (Policies on Education for Women’s Empowerment and Child Protection of the Industrialization Era in the 21st Century)	Ballroom
10.00 – 10.30	Coffee Break		
10.30 – 13.00	Plenary Session 1	2. Prof. TAN Chuanbao (Beijing Normal University, China) (Utilizing Findings of Educational Research and Innovation to Develop Educational Policies) 3. Prof. Dr. Sutrisna Wibawa, M.Pd. (Universitas Negeri Yogyakarta, Indonesia) (Policies on Local Wisdom Based-Educational Research and Innovation towards World Class University)	Ballroom
13.00 - 14.00	Lunch Break		

TIME	AGENDA	PRESENTER	VENUE
14.00 - 15.00	Keynote Speech 2	4. Prof. Drs. Muhammad Nasir, Akt, M.Si, Ph.D. Minister of Research, Technology, and Higher Education of the Republic of Indonesia (Educational Research and Innovation-Based Human Resource Development to Improve the Nation's Competitiveness)	Ballroom
15.00–15.30	Coffee Break		
15.30 -17.00	Parallel Session 1	Parallel Presentations	Parallel Rooms

Friday, August 31, 2018

TIME	AGENDA	PRESENTER	VENUE
07.30-08.00	Registration		
08.00–10.00	Plenary Session 2	5. Jane S. C Liu, Ph.D. (Chaoyang University of Technology, Taiwan) (Diffusion of Findings of Educational Research and Innovation through Universities' Business Incubators) 6. Prof. Dr. Zulqarnain Bin Mohamed (University of Malaya, Malaysia) (Improving Research-Based Education, and Community Services towards Research University)	Ballroom
10.00 – 10.30	Coaching Clinic on Scopus Publication Coffee Break		Ballroom
10.30 – 12.00	Parallel Session 2	Parallel Presentations	Parallel Rooms
11.30 – 13.00	Lunch Break/Friday prayer		

TIME	AGENDA	PRESENTER	VENUE
13.00 – 15.30	Parallel Session 3	Parallel Presentations	Parallel Rooms
15.30. – 16.00	Coffee Break		
16.00 – 16.15	Conference Closing		Parallel Rooms

Room 5 Session 3; Time 13.00-15.00 (August 31, 2018)

No	Presenter	Afiliation	Title	Topic
			Commitment, and Self-Development	
12	Mr. Muhammad Nursa'ban	Yogyakarta State University	Spatial Critical Thinking Factors on Geographic Metacognitive Assessment	Educational Research and Innovation to Formulate Quality Educational Policies
13	Ms. Gusmira Wita	Yogyakarta State University	Exploratory Analysis of Higher Order Thinking Skills (HOTS) in The Sociology Learning	Educational Research and Innovation to Formulate Quality Educational Policies
14	Mr. Faiq Yudha Miftakhul Rizqi and Ms. Rachmah Laksmi Ambardini		The Effectiveness Of Combination Stretching Pnf And Cryotherapy To Prevention Doms In Lower Extremity.	Technology in Humanity and Social, Sports, and Science Studies to Improve Quality of Education and Industries in the 21st Century

SPATIAL CRITICAL THINKING FACTORS ON GEOGRAPHIC METACOGNITIVE ASSESSMENT

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Abstract

Spatial critical thinking factors for metacognitive geography at senior high schools are still debatable among experts and practitioners in Indonesia. This study aims at developing these factors as a comprehensive and accurate assessment tool using structural equation model. An exploratory factor analysis has generated 15 point factors in three dimensions. Logical validity to measure factor strength is assessed by 9 experts and obtains Aiken index of 0.85 indicating a very good validity and fitted item factors. A confirmatory factor analysis on operational field testing uses LISREL and involves 595 subjects resulting in a value of chi square = 330,47 with df = 90, p-value = 0,000, RMSEA = 0,071, indicating the relationship between factor constructs. Maximum measurement equations have obtained $t = 4.78$ which is higher than 1.96 significance level of 5%. It means that 15 point factors have significant influence on the dimensions. The dimensions of spatial critical thinking generated on geographic metacognitive tests include: 1) concept comprehension, 2) concept application, and 3) creativity of producing ideas. The core of each factor is as follows: 1) application of concepts, 2) locations, 3) distances, 4) approaches, 5) equations, 6) disaster mitigations, 7) concept maps, 8) interactions, 9) map instruments, 10) auras, 11) regions, 12) hierarchies, 13) patterns, 14) spatial associations, and 15) inquiries.

Keywords: spatial, critical thinking, geography, education, test, metacognitive.