ACER-N
ASEAN COMPARATIVE EDUCATION RESEARCH-NETWORK

PROCEEDING

ASEAN COMPARATIVE EDUCATION RESEARCH-NETWORK
(ACER-N 2019)

"Education Innovation for the Fourth Industrial Revolution in ASEAN Countries"

15th - 16th August 2019
Santika Hotel Tasikmalaya and Galuh University Ciamis, Indonesia

Organized by:
Kantor Kerjasama | Program Pascasarjana
FKIP | Program Studi Pendidikan Bahasa Inggris
Universitas Galuh

Concurrent with:
Science, Technology, Engineering, and Mathematics (I AM-STEM)
Galuh Edutechnological Pedagogy Conference
The International English Applied Linguistics Seminar and Workshop (TIE ALLSAW) Conference
Young Scholar Symposium in Comparative Education (YSSCE) Conference

Proceeding

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Fakulti Pendidikan Universiti Kebangsaan Malaysia

Universitas Pasundan, Indonesia

Khon Kaen University, Thailand

Kolej Universiti Perguruan Ugama Seri Begawan, Brunei Darussalam

Universitas Negeri Padang, Indonesia

STKIP PGRI Sumatera Barat, Indonesia

Institut Pendidikan Guru Kampus Ilmu Khas, Malaysia

IAIN Syekh Nurjati Cirebon, Indonesia

Islamic Institute, Indonesia

Politeknik Negeri Medan, Indonesia

STAI Al Ma'Arif Ciamis, Indonesia

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Universitas Negeri Malang, Indonesia

STIE Haji Agus Salim, Indonesia

Universitas Muahmmadiyah Lampung, Indonesia

STAIN Sorong Papua Barat, Indonesia

Keynote Speakers

Prof. Dr. BUNYAMIN MAFTUH, M.A.
Ministry of Research, Technology, and Higher Education, Indonesia

Prof. Dr. NORASHMAH OTHMAN
Universiti Kebangsaan Malaysia, Malaysia

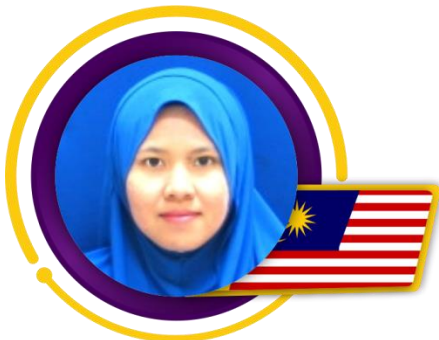**Prof. Dr. CHOKCAI YUENYONG**
Khon Kaen University, Thailand

Dr. GUMAWANG JATI, MA
Institut Teknologi Bandung, Indonesia

Invited Speakers

ITH VUTHY, M.Sc
SEAMEO-CECCEP, Cambodia

Dr. FURZANI BINTI PA'EE
University Tun Hussein Onn, Malaysia

JONATHAN R. CARREON, Ph.D. App. Ling., Ph.D Ling.
Huachiew Chalermprakiet University, Thailand

Dr. ISMAIL SUWARDI WEKKE, M.A
Sekolah Tinggi Agama Islam Negeri Sorong, Papua, Indonesia

Co-Hosted By

University Kebangsaan Malaysia

Huachiew Chalermprakiet University – Thailand

Universitas Muhammadiyah Prof. Dr. Hamka – Indonesia

Universitas Perjuangan – Indonesia

Universitas Muhammadiyah Lampung – Indonesia

Sekolah Tinggi Agama Islam Putra Galuh Ciamis – Indonesia

Universitas Pekalongan – Indonesia

Universitas Pasundan – Indonesia

Universitas Subang – Indonesia

Universitas Islam Sultan Agung – Indonesia

Sekolah Tinggi Keguruan dan Ilmu Pendidikan Pasundan

Sponsored By

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Rina Herlina, M. Pd.

R. Bunga Febriani, S. S., M. Hum.

Lilies Youlia F, S. S., M. Pd. BI.

Etika Rachmawati, M. Pd.

Dedeh Rohayati, M. Pd.

Speech From Rector of Galuh University

ACER-N 2019: GALUH EDUTECHNO PEDAGOGY CONFERENCE, TIE ALLSAW, YSSCE SHANTIKA TASIKMALAYA HOTEL, 15TH AUGUST 2019

His Excellency Director of Career and Human Resources Competencies, Ministry of Research, Technology, and Higher Education, Indonesia, Prof. Dr. Bunyamin Maftuh, M.A. The honourable:
The Head of LLDIKTI, West Java-Banten, Indonesia, Prof. Dr. Uman Suherman, M. Pd.
The President of ACER-N, Prof. Nor Aisyah Buang, Universiti Kebangsaan Malaysia
Esteemed Keynote Speakers, Invited Speakers, and all other speakers,
Distinguished co-host institutions, institutions members, guests, Participants,
Ladies and Gentlemen

Assalamu'alaikum warahmatullahi wabarakatuh
May peace and God's Mercy and blessings be upon you all.
Good morning,
On behalf of Galuh University, I would like to thank you for attending to this academic and prestigious event. For Galuh University, this fifth international conference ASEAN Conference Educational Research-Network is series of scholarly milestone that our university , Galuh University, is able to engage together a large number of people from different groups of policy makers, researchers, course practitioners, classroom teachers, curriculum developers, materials designers, teacher, supervisors, and testing and assessment developers, of both local and foreign countries in order to participate in this international conference.
Realizing the grace of this occasion, it is my honor to welcome you all at the fifth ASEAN Conference Educational Research-Network 2019 concurrently with Galuh-EduTechno Conference, The 4th The International English Applied Linguistics and Workshop (TIE ALLWAS), and Young Scholar Symposium in Comparative Education. I wish to extend my sincere gratitude to all respected delegates and all participants for attending this conference and fully involving in every single agenda within this conference. The theme of the conference, "Education Innovation in Industry Revolution 4.0", is about framing the educational context innovatively for facing digital era. This conference, I believe, will provide new insights from practitioners, researchers, and experts on the innovative education as the equipping phase for 21st century learning needs.
Ladies and gentlemen, let me take this opportunity to congratulate the Organizing Committee for contributing outstanding and awesome effort to make successful conference.
I wish all ACER-N speakers, presenters, and participants having fruitful discussion, worth feedback, and great accomplishment, and I expect everybody finds the conference and your stay in Tasikmalaya rewarding and memorable.
Have a Great Conference! Thank you!
Wassalamu'alaikum warahmatullahi wabarakatuh

Dr. H. Yat Rospia Brata, M. Si
Rector of Galuh University

ACER-N President Welcome Note

Dear Excellences, Distinguished Guests, Academics Colleagues, Ladies and Gentlemen

It is a true pleasure for me to welcome you to the Fifth ACER-N conference, this time in Indonesia, specifically at University of Galuh (UNIGAL). I am very grateful to the Rector of UNIGAL, Dr. H. Yat Rospia Brata, Drs., M.Si, the Vice Rector Bapak Iskhak and their lecturers for spending their precious time to host this conference. I also wish to thank all the keynote speakers from Malaysia, Indonesia, Thailand, Taiwan and Singapore for sharing their expert knowledge with all the participants. It is also an honour to welcome representatives from our partner academics as well as experts from all areas of education such as science and engineering, social science and language. And I would like to greet Indonesia's representative from the Federal governments' departments.

I also would like to share with you about the ASEAN COMPARATIVE EDUCATION RESEARCH NETWORK (ACER-N) organization which had been formed in 2014 by the Faculty of Education, Universiti Kebangsaan Malaysia. ACER-N vision is to bring together all our researchers in education from all ASEAN countries to share our academic activities such as research, publication and expertise. As of today, ACER-N had been successful in organizing her fifth conference. We are grateful with the current development because we were able to bring in our Thailand partner from Khon Kaen University. Hopefully, in the near future, we can extend our participation from other ASEAN countries like Singapore, Vietnam, Cambodia, Philippines, Myanmar and Brunei. This network is a voluntary organization and thus no cost is imposed on any member country. This year also saw ACER-N conference is organized with other organizations as well such as I-STEM group from Thailand, Galuh Edutechnological Padagogy group, The International English Applied Linguistics group (TIE ALLSAW, and Young Scholar Symposium in Comparative Education group (YSSCE). ACER-N hope to work with other organizations as well in the future from other ASEAN countries without prejudice.

Moving forward, I hope ACER-N with her ASEAN partners will be more active in working together not only in organizing conference but co-researching in education issues across ASEAN countries so that we can learn from each other and improve our education curriculum, pedagogy, assessments and system from there. Lastly, again from the bottom of my heart I would like to thank UNIGAL and all of you for making this conference realized.

Thank you

President of ACER-N
Professor Dr Nor Aishah Buang
Universiti Kebangsaan Malaysia

Table of Content

General Program/Schedule
5th ACER-N INTERNATIONAL CONFERENCE
(ASEAN COMPARATIVE EDUCATION RESEARCH NETWORK CONFERENCE)
Hosted by Galuh University
SANTIKA HOTEL, THURSDAY, 15th AUGUST 2019

TIME	EVENT	VENUE
07.00-08.00	REGISTRATION	Ballroom Lobby
08.00-08.30	OPENING CEREMONY 1. Reciting Holy AlQur'an 2. Singing Indonesian National Anthem 3. Work Report by conference chair (UNIGAL) 4. Addressing Speech by ACER-N Board 5. Welcome address by UNIGAL Rector 6. Opening remarks (Prof. Dr. Uman Suherman AS, M.Pd, The Head of LLDIKTI, West Java-Banten, Indonesia) 7. Photo session	Ballroom
08.30-08.40	Rampak Jaipong Dance	Ballroom
08.45-09.35	Conference Keynote 1 (YOUNG SCHOLAR SYMPOSIUM IN COMPARATIVE EDUCATION): Educational Human Resource Development in Higher Education in the 4.0 Era: Indonesian Perspectives Prof. Dr. Bunyamin Maftuh, M.A. (Ministry of Research, Technology, and Higher Education, Indonesia)	Ballroom
09.35-09.50	Coffee Break	Ballroom Lobby
09.50-10.50	Conference Keynote 2 (Special Guest) Prof. Dr. Norasmah Othman (Universiti Kebangsaan Malaysia, Malaysia)	Ballroom
10.50-11.35	Conference Keynote 3 (ACER-N) Dr. Jesus C Fernandez (SEAMEO RECFON, Philippines) (in confirmation)	Ballroom
11.35-12.15	Conference Keynote 4 (I AM-STEM) Prof. Dr. Chokcai Yuenyong (Khon Kaen University, Thailand)	Ballroom
12.15-13.15	Lunch Break, Rest/Prayer	Ballroom, Lobby, Swimming Pool Area, Mushola
13.15-14.05	Conference Keynote 5 (TIE ALLSAW) Dr. Gumawang Jati, MA (ITB, Indonesia)	Ballroom
14.10-15.00	Concurrent invited speakers - ACER N+Galuh Edutechnological Pedagogy (Ith Vuthy, M.Sc., Cambodia, SEAMEO-CECCEP)	Ballroom

14.10-15.00	Concurrent invited speakers -I-AM-STEM (Dr. Furzani Binti Pa'Ee, University Tun Hussein Onn, Malaysia)	Edelweis Room
14.10-15.00	Concurrent invited speakers - TIE ALL SAW (Jonathan Rantee Carreon, Ph.D. App. Ling., Ph.D Ling, Huachiew Chalermprakiet University, Thailand)	Tulip Room (2nd floor)
14.10-15.00	Concurrent invited speakers - YOUNG SCHOLAR SYMPOSIUM IN COMPARATIVE EDUCATION/YSSCE (Dr. Ismail Suwardi Wekke, M.A., Sekolah Tinggi Agama Islam Negeri Sorong, Papua, Indonesia)	Cempaka 2 Room
15.00-16.00	1st Concurrent paper presentations ACER-N + Galuh Edutechnology	Ballroom
15.00-16.00	1st Concurrent paper presentations I AM STEM	Edelweis Room
15.00-16.00	1st Concurrent paper presentations TIE ALLSAW	Tulip Room (2nd floor)
15.00-16.00	1st Concurrent paper presentations YSSCE	Cempaka 2 Room
16.00-16.15	Coffee Break	Ballroom
16.15-17.15	2nd Concurrent paper presentations ACER-N+Galuh Edutechnology	Ballroom
16.15-17.15	2nd Concurrent paper presentations I AM STEM	Edelweis Room
16.15-17.15	2nd Concurrent paper presentations TIE ALLSAW	Tulip Room (2nd floor)
16.15-17.15	2nd Concurrent paper presentations YSSCE	Cempaka 2 Room
17.15-17.30	Closing Speech by Chairman of Conference	Ballroom
17.31	End of Conference & Certificate Distribution	Ballroom Lobby
19.00-21.00	Conference Dinner and Students' Performance (Invited guests & speakers only) -Thanking Speech by Rector -Singing & Dancing -Kacapi Suling Performance	Ballroom

Programme

5th ACERN (ASEAN COMPARATIVE EDUCATION RESEARCH NETWORK CONFERENCE)
"Education innovation for the fourth industrial revolution 4.0 in ASEAN
countries"
Thursday, 15 August 2019
Santika Hotel, Tasikmalaya, West Java
Indonesia

1st Concurrent paper presentations
Category   : ACER-N and Galuh Edutechnology
Venue   : Ballroom
PIC   : Didih Faridah, M. Pd and Intani Permata Rizki, S. Pd.
Time   : 15.00 – 16.00

Table No	Title	Presenter	Institution	Moderator
1	An Analysis on the Students' Capability in Writing Short Stories	Ikin Syamsudin Adeani	Universitas Galuh	Hendra Rustiawan
	Teaching Factory and Technopark: Bringing Together Schools with the world of industry, Business, Training, and Entrepreneurship	Somariah Fitriani, Abd. Rahman	Universitas Muhammadiyah Prof. Dr. Hamka	
	Ronggeng Philosophy Values in the History of History Learning in History Student Program Students	Wulan Sondarika, Dewi Ratih	Universitas Galuh	
	The Influence of Headmaster Academic Supervision towards Teacher Profesionalism and its Relation to Learning Process Quality: A Case Study at Elementary Schools in Indonesia	Desi Nurani	Universitas Galuh	
3	"Learning Cycles" for Adult Education in Postgraduate School	Abdul Rohman, Enas, Runalan	Universitas Galuh	In In Supianti
	The Effect of Outdoor Education and Sports Attitude Towards Self Esteem	Dede Iman Suhendra, Andang Rohendi, Dikdik Primadani	Universitas Galuh	
	Students Language Attitude and the Guidance Model Design	Asep Hidayatullah	Universitas Galuh	
	The Application of Simple Accounting Format in Traditional Shop	Dedeh, Dendy S Akbar, Rizka A putra	Universitas Galuh,	

	Title	Presenter	Institution	Moderator
5	Polite Language Education Strategies in Teaching Speaking in Indonesian Language Courses: How Applicable?	Taufik Hidayat, Rina Agustini	Universitas Galuh	Kiki Endah
	Developing Life Skill Based-Guidance and Counseling To Promote College Students Prospective Careers	D. Rukaesih	Universitas Galuh	
	Improving Analytical Skill Students of Geography Education Department, Siliwangi University using "The Power of Two Learning" strategy	Ely Satiyasih Rosadi	Siliwangi University	
	Contribution of Education Management Services toward Satisfaction and Loyalty for Private University Students	Elly Resly Rachlan	Universitas Galuh	
7	Evaluation on implementation school based management (SBM) in improving Education Quality	Ihsana El Khuluqo, Abdul Rahman A. Ghani	Universitas Muhammadiyah Prof. Dr. Hamka	Nur Ilmiyati
	An Exploration of Indonesian EFL Teaching Anxiety across gender	Dinda Permatasari, Herri Mulyono, Gunawan Suryoputro	Universitas Muhammadiyah Prof. Dr. Hamka	
	Development of "Kata Sepat" Flash Games as Learning Media of Quadrilateral for Junior High School Students	Nurina Hidayah, Nur Baiti Nasution, Fahmi, Irfan, Hasyim Asyari, Hendy	Universitas Pekalongan	
	Using Discovery Learning Method to Improve Critical Thinking Ability in Students Who have a High and Low IQ on Economic Lessons	Ilah, Rita Patonah	Universitas Galuh	

2nd Concurrent paper presentations
Category   : ACER-N and Galuh Edutechnology
Venue   : Ballroom
PIC   : Didih Faridah, M. Pd and Intani Permata Rizki, S.Pd
Time   : 16.15 – 17.15

Table No	Title	Presenter	Institution	Moderator
1	Plagiarism and Implementation of Pancasila Value	Dwi Edi Wibowo	Universitas Pekalongan	Rina Agustini
	Innovation and Creative Model of Literature Writing Skills	Nia Rohayati, Sri Mulyani, Ida Farida	Universitas Galuh	

	Does Mobile Learning Improve Students' Creativity and Mathematical Understanding	Khoerul Umam, Rizki Dwi Susandi, Abdul Rahman A. Ghani	Universitas Muhammadiyah Prof. Dr. Hamka	
3	Student Perspective on Application E-Learning and Blended Learning in Mathematical Learning	In In Supianti	Universitas Pasundan, Universitas Pendidikan Indonesia	Asep Hidayatullah
	Local Wisdom Based Character Values on Kawali's Inscription in Learning History	Sri Pajriah, Aan Suryana	Universitas Galuh	
	Application of Collaboration Curriculum for Students in Madrasah Ibtidaiyah Andalan Cijantung Ciamis	Kiki Endah, Endah Vestikowati, Iskhak	Universitas Galuh	
	Understanding students' thinking processes through cognitive structures: A case studies of mathematics learning in elementary schools	Imam Kusmaryono, Ibnu Jamalullail	Universitas Sultan Agung Semarang	
5	Character Strengthening in Historical Learning Through the Traditions of Mapag Ramadan in Ciamis	Yeni Wijayanti	Universitas Galuh	Wulan Sondarika
	Inquiry Model to Improve Teacher Training Students' Critical Thinking	Nur Ilmiyati	Universitas Galuh	
	Philosophy Value of Hamemayu Hayuning Bawana Sea Alms Tradition for Learning History	Yadi Kusmayadi, Sudarto	Universitas Galuh	
7	Correlation Between Body Fat Percentage and Physical Fitness Level	Hendra Rustiawan, Sri Maryati	Universitas Galuh	Dede Iman Suhendra
	The Effect of Cooperative Learning Type *Think Pair Share (TPS) Model, Numbered Head Together (NHT), and SAVI (Somatic, Auditory, Visualisation)* on Students' Ability to Understand Social Sciences Concepts : An Experimental Study at a High School in Indonesia	Dedeh, Agie Hanggara, Saeful Huda Mubarok	Universitas Galuh, Universitas Kuningan	
	Politeness Expression in the Bahasa (Indonesian Language) Spoken by Sundanese-Indonesian Bilinguals	Hendaryan, Iskhak, Intani Permata Rizki	Universitas Galuh	

| | Tahap Pengetahuan dan Kesediaan Pensyarah Institut Pendidikan Guru Kampus Pendidikan Teknik (IPGKPT) Bagi Menghadapi Revolusi Industri 4.0 (IR 4.0) | Romy Bin Abd Kadir, | Institut Pendidikan Guru Kampus Pendidikan Teknik | |

1st Concurrent paper presentations
Category   : TIE ALLSAW
Venue   : Tulip Room
PIC   : Dedeh Rohayati, M.Pd and R. Bunga Febriani, SS., M.Hum
Time   : 15.00 – 16.00

Table No	Title	Presenter	Institution	Moderator
1	What They Share and They Are Not: Teachers' Epistemological beliefs in teaching English in a Globalized Classroom	Remart Dumlao	Muban Chombueng, Rajabhat University	Lystiana M. Hakim
	Integrating Process-Genre Approach with Project IBUNKA in an EFL Writing Class: Students' Points of view	Elis Homsini Maolida, Vina Aini Salsabila	Universitas Suryakancana	
	The Role of Blended Learning in Enhancing Students' Writing Paragraph	Dodi Mulyadi	Universitas Muhammadiyah Semarang	
2	Flipped Classroom Model in Speaking Class	Leni Irianti	Universitas Galuh	Sigit Apriyanto
	Teaching Othering in Education Using X-Men Movie	Susanto	Universitas Pekalongan	
	Identity Construction and Negotiation: Language Socialization through Oral Academic Presentation in An EFL Classroom	Jonathan R. Pinatacan	King Mongkut's University of Technology Thonburi, Thailand	
3	How To Accelerate Your Comprehension on interrogative sentences using magic round	Tri Agustini Solihati, Lystiana N. Hakim	Universitas Perjuangan Tasikmalaya	Leli Nisfi Setiana
	Cultural Negotiation: The Practice of English Personal Titles in Indonesia	Rina Herlina, Wawan Tarwana	Universitas Galuh	
	An Investigation of In-service EFL Teachers' anxiety to speak in Engish as a foreign language	Labibah Masturoh, Anita Dewi Ekawati	Universitas Muhammadiyah Prof. Dr. Hamka	

	Title	Presenter	Institution	Moderator
4	An evaluation of EFL teachers' perceptions of Blended Learning	Deana Ismayana, Herri Mulyono, Gunawan Suryoputro, Cahya Komara	Universitas Muhammadiyah Prof. Dr. Hamka	Yulina Ismiyanti
	EFL University Students' Perception of the use of Podcast	Nisrina Zulfa, Sri Kusuma Ningsih	Universitas Muhammadiyah Prof. Dr. Hamka	
	PADLET For Teaching English Texts: A Program Evaluation for In-service EFL Teacher Training	Iskhak, Kusnandi, Muhtar	Universitas Galuh	
5	"Classroom Criticism" In Literature Class through Reflective Journal Writing: EFL College Students' Perspectives	Mia Nurlaela, Iskhak	Universitas Galuh	Cahyadi
	The Application of MALL (Mobile Assisted Language Learning) through U-Dictionary in Teaching Speaking	Tya Marina, Etika Rachmawati	Universitas Galuh	
	Discussion about Metalanguage in Students' Argumentative Text to Improve Students' Critical Thinking	Intani Permata Rizki, Iskhak	Universitas Pendidikan Indonesia	

2nd Concurrent paper presentations

Category   : TIE ALLSAW
Venue   : Tulip Room
PIC   : Dedeh Rohayati, M.Pd and R. Bunga Febriani, SS., M.Hum
Time   : 16.15 – 17.15

Table No	Title	Presenter	Institution	Moderator
1	Encouraging Students to Implement Reader-Response-A Literary Approach to Making Meaning of Short Stories	R. Bunga Febriani Lilies Youlia F	Universitas Galuh	Deana Ismayana
	Promoting Students' Critical Thinking through Peer Feedback in Oral Communication Classroom	Didih Faridah, Bambang Ruby S yatun Thoyyibah	Universitas Galuh	
	Critical Thinking and Collaborative Learning: Students' Perceptions	Dedeh Rohayati	Universitas Galuh	
	Animated Stories Cartoon and EFL Writing Activities	Bastian Sugandi, Mardiana, Hesti	Universitas Muhammadiyah Lampung	

2	Fostering English Teacher Candidates on Intercultural Communication Sensitivity in Facing Global Academic Exchange	Andi Rustandi, Sigit Apriyanto, Cahyadi	Universitas Galuh	Labibah Masturoh
	Violence and Exploitation Toward Women in Short Stories collection "Saia" by Djenar Maesa Ayu	Turahmat	Universitas Sultan Agung Semarang	
	A Comparison of Students' strategies in learning Speaking at Senior High Schools in Semarang	Syafryadin	University of Bengkulu	
	English for Police Officers: CSI NY Series Corpus-based Learning Materials	Jonathan Rante Carreon, Anchan Premjai, Andi Rustandi	Huachiew Chalermprakiet University, Universitas Galuh	
3	The Urgency of Forensic Linguistics in a Police Interrogation Process	Sigit Apriyanto, Dalman, Andi Rustandi	Universitas Muhammadiyah Lampung, Universitas Galuh	Mia Nurlela
	How Non-Native Young Children Learn English (A Descriptive Study on A Group of Sundanese Young Children in Ciamis Regency, West Java)	Yusuf Hidayat, Ani Herniawati	STAI Putra Galuh Ciamis	
	Education Innovation in Asean Countries in Learning Critical Thinking and Problem Solving through Brainwriting Engineering	Leli Nisfi Setiana, Meilan Arsanti	Universitas Islam Sultan Agung Semarang	
4	Teacher Perception Towards the Use of Lesson Writer in developing English Teaching Materials For Vocational High School	Lystiana N.Hakim	Universitas Perjuangan Tasikmalaya	Tya Marina
	The Effect of Pictorial Story Media On Critical Thinking Class 4th Primary School 1 Pendem	Yulina Ismiyanti	Universitas Islam Sultan Agung	
	The Project-Based Learning Approach to Learning Bevariate Correlational research for EFL Pre-service Teachers	Kusrin, Elih Sutisna Yanto	Universitas Singaperbangsa Karawang	
5	The Level and Type of EFL students writing anxiety in	Anggi Rizki Liestyana, Herri Mulyono,	Universitas Muhammadiyah Prof. Dr. Hamka	Etika Rachmawati

Indonesian Secondary School and Higher Education	Silih Warni, Gunawan Suryoputro		
Design of Oral Literature Revitalization Model into Poetry Musicalization Performance	Adita Widara Putra, Sumiyadi	Universitas Galuh, Universitas Pendidikan Indonesia	
The use of social media for authentic learning: Review of literature and instrument development	Herri Mulyono	Universitas Muhammadiyah Prof. Dr. Hamka	

1st Concurrent paper presentations
Category   : I AM STEM
Venue   : Edelweis Room
PIC   : Warsono, M.S and Rudiana, S.Pd

Time	Title	Presenter	Institution	Moderator
15.00 – 5.20	Developing Optical Physics Textbook based on Problem Based Learning (PBL) and soft Skills	Setya Ferywidyastuti	STIKES Hakli Semarang	Yudita Ingga Hindiarti
	Creative Problem Solving to Improve High School Students' Mathematical Problem Solving Ability	Adang Efendi	Universitas Galuh	
	STEM-Based Bioelectricity Teaching Materials : A Conceptual Analysis	Toto, Ruhana Afifi, Lia Yulisma	Universitas Galuh	
	The Creativity in Producing Videos as Mathematical Tasks	Ai Tusi Fatimah	Universitas Galuh	
	Mathematical Communication of Midle School Students with Inquiry Learning Assisted by Geogebra Software	Melinda Putri Mubarika	Universitas Pasundan	
15.20–15.40	Development of ICT-HELPED Project-based Learning (PBL) model in capability optimization Efforts solving of mathematical students of middle school	Asep Amam	Universitas Galuh	Intan Kusmayanti
	Development of Munsell Soil Color Index On Using the Support Method Of Optical Machine (Soil Color Detector version 1.0)	Dani Lukman Hakim	Universitas Galuh	
	Enhancing Mathematical Communication Ability Using Auditory, Intellectually and Repetition.	Sri Solihah	Universitas Galuh	

Time	Title		Presenter	Institution	Moderator
	Metacognitive Awareness Profile of Biology Education Students at Three Universities in West Java		Euis Erlin, S. Rezeki	Universitas Galuh	
15.4 –16.00	Learning Trajectory in Realistic Mathematics Education through STEM-Based Linear Equation System		Ida Nuraida, Yoni Sunaryo	Universitas Galuh	Widya Maya Ningrum
	Agroforestry As An Ecological Resource for Rice Field Ecosystems		Dadi	Universitas Galuh	
	Development of Mathematical Textbooks Based on Investigation to Improve the Algebraic Reasoning		Moch Abd. Basir, S. B. Waluya, Isnarto	Universitas Sultan Agung	
	Application of Brain-based Learning to improve Student's Mathematical Problem Solving Abilities		Yoni Sunaryo, Ida Nuraida,	Universitas Galuh	
	Achievement of Students' Mathematical Thinking Skills through The CMI Model		Nita Delima	Universitas Subang	

2nd Concurrent paper presentations
Category   : I AM STEM
Venue   : Edelweis Room
PIC   : Warsono, M.S and Rudiana, S.Pd

Time	Title	Presenter	Institution	Moderator
16.15-16.35	Mathematic Teaching in Vietnam and Connecting Mathematic to Real World Mathematic Teaching	Trung Tran, Trung Nguyen Tien, Thao Trinh Phuong	Vietnam Academy for Ethnic Minorities, Vietnam	Dani Lukman Hakim
	Compliance of Antenatal Iron Supplements Consumed in the Second Trimester of Pregnancy	Yudita Ingga Hindiarti	Universitas Galuh	
	Introducing About Japanese Smart Bidet Toilet Seat As the Best Product in the World	Selamet Riyadi, Rd. Moh. Rizki Ridwansyah	Universitas Galuh	
	Feeding Deterrence Activity of Shagneticola Trilobata Leaf Extract on Spodoptera Litura Larvae	Efrin Firmansyah	Universitas Perjuangan Tasikmalaya	
16.35– 16.55	Effect of Problem-based Learning with Didactical Engineering on Students Mathematical Literacy	Bety Miliyawati	Universitas Subang	Melinda Putri Mubarika
	The Impact of Math Anxiety to Students' Mathematical Understanding	Intan Kusmayanti, Eka Atika Sari	STAI Putra Galuh	

	Developing 21st Century Skills of Prospective Teacher through Hybrid Learning Integrated PJBL	Nur Eva Zakiah	Universitas Galuh	
	Digital Partograph: A Way of Improving Quality Partograph Use during Labour Monitoring	Widya Maya Ningrum	Universitas Galuh	
16.55– 17.15	The Effect of Ambon Banana Consumption On The Elderly Blood Pressure of Hypertension	Dini Nurbaeti Zen	Universitas Galuh	Ida Nuraida
	Transgenic Plants as Alternative Technology in Integrated management	Jeti Rachmawati	Universitas Galuh	
	The Identification of Medical Herb Diversity in Mount Papandayan	Asep Purwanto	Universitas Winaya Mukti	
	Effect of Exercise Progresive Muscle Relaxation on Sleep Quality in Patients with Hypertension	Siti Rohimah	Universitas Galuh	

1st Concurrent paper presentations
Category   : Young Scholar Symposium in Comparative Education/YSSCE
Venue   : Cempaka 2 Room
PIC   : Lilies Youlia F, SS., M.Pd. B.I. and Luthfiyatun Thoyyibah, M.Pd

Time	Title	Presenter	Institution	Moderator
15.00– 15.20	Cultural and Social Dynamics in Sundanese Civilization: Historical Perspectives from Old to Digitalized Recent "Glocalization" Time	Yat Rospia Brata	Universitas Galuh	Rika Istianingrum
	The Role of Village Assetts as One of the Sources of the Village Original Income	Evi Noviawati	Universitas Galuh	
	Strategies fo SMEa Development through Enterpreneurship based Curricula	Ferey Herman, Enas	Universitas Galuh	
15.20-15.40	Management of Situ Lengkong Panjalu Cultural Tourism Objects in Efforts to Improve Community Economic Welfare	Agus Budiman, Egi Nurholis	Universitas Galuh	Hartati Ratna Juita
	The Analysis of Promotion Program, Tourism Destination Infrastructure Development Program, and the Relation of Tourism Visit Program Including Local Own-Source Revenue of Tourism Affairs Strategic Plan in Ciamis Regency 2015-2019	Aini Kusniawati Kusniadi	Universitas Galuh	

Time	Title	Presenter	Institution	Moderator
	Development Strategy of Sharia Banking Markets	Ihrom Jaelani, Ida Parida	STAI Putra Galuh Ciamis	
	The Effect of Pre Operative Education Intervention on Anxiety Levels in Elective Pre Operating Patients in QIM Batang Hospital	Isrofah, Sudirman, Yusuf Arifin	Universitas Pekalongan	
15.40–16.00	Analysis of the Failure Causes of Baitul Mal Wattamwil In Lampung Province (Period 2017-2018)	Moh. Fakhrurozi, Fajrin Satria Dwi Kesumah, Noorikha Pandaya	Universitas Muhammadiyah Lampung	Deni Mudian
	Profetic Retoric Value Formula Discussion of Political Advertising	Fahrudin Eko Hardiyanto	Universitas Pekalongan	
	Sinergity Implementation of Village Innovation Program in Encouraging Local Economic Development	Cici Tania Dewi, Endah Vestikowati, Dini Yuliani	Universitas Galuh	
	Primary Educational Quality in Budgeting Post in Law Number 23 of 2014 (Case of Primary Educational Sector Expenditure Allocation in Subang Regency	Tepi Peirisal, Zaenal Hirawan, and Dede Akhmad	Universitas Subang	

2ⁿᵈ Concurrent paper presentations
Category   : Young Scholar Symposium in Comparative Education/YSSCE
Venue   : Cempaka 2 Room
PIC   : Lilies Youlia F, SS., M.Pd. B.I. and Luthfiyatun Thoyyibah, M.Pd

Time	Title	Presenter	Institution	Moderator
16.15-16.35	Establishing Customer Satisfaction through Communication of Integrated Marketing and Management of Customer Relationship	Oyon Saryono, Nana Darna, Mujaddid Faruk	Universitas Galuh	Ihrom Jaelani
	Implementation of Health Care Decentralization in Tasikmalaya Regency, West Java, Indonesia	Erlan Suwarlan, Utang Suwaryo, Rahman Mulyawan	Universitas Galuh	
	Optimizing The State Income Through Law Enforcement and Law Supervision in the Field of Taxation	Dewi Mulyanti, Dudung Mulyadi, Enju Juanda	Universitas Galuh	
	The Influence of Service Marketing Performance and Customer Value in Shaping The Level of Trust to Improve Customer Loyalty	Tita Setiawati	Universitas Pasundan	

16.35–16.55	Ngendau Oral Tradition: For of Local Wisdom for Peace The Dayak Kenyah Community	Rika Istianingrum	Universitas Pendidikan Indonesia	Cici Tania Dewi
	Fabricating Wood Waste as Non-explosive Fuel Charcoal Briquettes by utilizing Environmental Support-based Incinerator: A continuity Service Training Program	Ida Farida, Mamay Komariah, Zenal Abidin	Universitas Galuh	
	Evaluation of Community Understanding on Subang Jawara Program in Midterm land of Subang Regency 2018-2023	Ine Anggraini	Universitas Subang	
	The Influence of Transformational Leadership and Motivation on Job Satisfaction and Its Impact on Employess Performance at The Budi Luhur Clinic Cimahi	Deswara	Universitas Pasundan	
16.55–17.15	Study of Socialization Effectiveness Of Patimban Port Development Projects and Its Acceptance by the Community	Nuraeni	Universitas Subang	Dini Yuliani
	Application Method for Psychological Skills Training Relaxation Increase Referee in Leading Performance Game Football	Deni Mudian	Universitas Subang	
	Tracing Tradition of Marriage Ceremony Cacap-Cacapan in Lubuklinggau City	Hartati Ratna Juita	Universitas Pendidikan Indonesia	
	Legal Certainty of Ownership Rights to Land Certified Confronted with Customary Law System of Law in Indonesia	Saim Aksinudin	Universitas Pasundan	

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THE DEVELOPMENT OF *"KATA SEPAT"* FLASH GAME AS QUADRILATERAL LEARNING MEDIUM FOR JUNIOR HIGH SCHOOL STUDENTS

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Abstract

"Kata sepat" flash game is adapted from the *"Kata Sepat"* game card. "Kata Sepat" game has a purpose as a medium of mathematics learning for junior high school students on quadrilateral material. This research belongs to developing research adopting a 4D model that focuses on the development stage producing product design and validity. This product has an initial design in the form of a simple card game as the initial prototype. Then it is redesigned to produce prototype 2 in the form of flash. To know the validity level of the product, validation was carried out by several experts. It is viewed on various aspects including navigation, text/writing, interface, and contents aspects. The validation analysis showed the obtained calculation, 4,56, which was very valid category. Yet, it is necessary to do a trial on small-scale learning and improvement of several things in the game display.

Keywords: kata sepat, media of mathematics learning, quadrilateral

INTRODUCTION

In the current era of information and technology which is relatively fast, mathematics still has an important role. So that in Indonesia mathematics is taught starting from the basic to the upper secondary level. In elementary school students, 80% of 20 students stated that mathematics is an important subject, but as many as 45% thought mathematics was difficult to learn (Siregar, 2017). This is also experienced in male students in junior high school who have negative perceptions and mathematical creative thinking dispositions in the medium category in mathematics (Anggoro, 2016).

More specifically on quadrilateral material, revealed the causes of students' mistakes in general, namely the ability of students who are less in interpreting the intent of the problem, understanding of students who are lacking in interpreting the intent of the problem, understanding students who lack the concept of mathematical calculations, and understanding less mathematics (Amdam, 2017). Also, quadrilateral material problems are conceptual errors, factual errors, and principle errors (Putra, Jaeng, & Sukayasa, 2016). The misconception is that students are incorrect in using the broad formula and around and misunderstanding the story. The erroneous fact that is incorrect or does not write down the unit area and circumference in progress. The principle mistake is not being able to change story problems into mathematical models.

These problems can be overcome in the learning process by using learning media. Learning media, according to Kemp & Dayton (1985: 8) can fulfill three main functions (1) motivating interests or actions; (2) presenting information; (3) giving instructions (Arsyad, 2016). As in learning mathematics with the help of Macromedia Flash, it gets a very interesting response from students (Masykur, Nofrizal, & Syazali, 2017).

Macromedia Flash is software that can be used to create animations and games that

can be exported in the form of shockwave or executable files. In addition to Macromedia flash, there is also software for creating animations, SwishMax. The menus in SwishMax are relatively easy to use. Slightly different from Macromedia flash, each animated text must be arranged one by one, while in SwishMax there are various types of animated text available. In the process of developing flash-based *"kata sepat",* the SwishMax application is used.

It can be said that the SwishMax application is included in multimedia. Description of multimedia is the use of computers to present and combine text, sound, images, animation, audio, and video with tools and connections so that users can navigate, interact, work and communicate (Wikipedia, 2019). The tool used in this case is a computer. There are several kinds of computer-based learning programs, one of which is instructional games. A well designed game program can motivate students and improve their knowledge and skills (Arsyad, 2016). The mastery of learning mathematics students who use computers in the learning process is 26.51% higher than conventional learning (Riyadi & Pardjono, 2014).

Flash-based *"kata sepat"* game is one of the alternatives presented to overcome problems in mathematics subjects, especially quadrilateral material. Some quadrilateral material that is discussed in the development of flash-based *"kata sepat"* is square, rectangle, parallelogram, rhombus, kite, and trapezoidal isosceles. This includes the shape of each quadrilateral, its properties, area, and circumference. Through development, it is known that the flash-based *"kata sepat"* is worthy of being used for mathematics learning.

METHODS

This research is development research with a 4-D (Four-D) model which includes define, design, develop, and disseminate (Thiagarajan & Sivasailam, 1920). This study is only to define, design, and develop. The techniques and data collection instruments used were documentation and questionnaires. The questionnaire instrument was used to validate the flash- based *"Kata Sepat"* products. Aspects contained in the validation sheet include navigation, writing, interfaces, and contents with 23 statements. This validation sheet is used to see the feasibility of flash-based *"kata sepat"* from predetermined aspects. The steps for determining validity are seen from the average of each criterion of the validator, the average of each aspect, and the average total validity which is then matched with the categories specified in table 1.

Table 1. Assessment Criteria for Validation Results

Interval	Kriteria Kevalidan
$1,00 \le V_a < 2,00$	Not Valid
$2,00 \le V_a < 3,00$	Less valid
$3,00 \le V_a < 4,00$	Valid
$4,00 \le V_a \le 5,00$	Very Valid

(Hobri, 2010)

Information: V_a is the average total validity of media "kata sepat" flash based

RESULTS AND DISCUSSIONS

The initial stage is defined, to describe the basic problems and potential possessed in the junior high school mathematics learning process on rectangular material. The main potential currently possessed is that students at the age of 12-14 years according to Piaget enter the formal stage, namely the beginning of abstract thinking (Suparno, 2001). The progress of students at this stage students does not need to think with the help of objects or concrete events (Ibda, 2015). So that computer-aided mathematics learning is one of the optimal breakthroughs. One type is in the form of multimedia. It is known that computer-based mathematics learning shows the mastery learning is higher than conventional learning (Riyadi & Pardjono, 2014).

Whereas what happens is that there are still difficulties experienced by students in solving problems related to rectangles. This is because several factors (1) have not illustrated the story problem into the picture; (2) memorizing without knowing the concept; (3) do not understand the flat shape based on the characteristics of its characteristics; (4) haste so that they do not understand the meaning of the problem; (5) forget or are lazy to solve problems (Amdam, 2017). Therefore it is necessary to have multimedia that can help students in learning mathematics in flash-based quadrilateral material.

Based on the description of the potential that is owned and the problems that exist then the design phase is carried out. At this design stage, it produces a program called *"Kata Sepat"* which has an abbreviation of *"Kata Pintar Segi Empat". "Kata Sepat"* starts from a mathematical teaching aid in the form of a card game with quadrilateral mathematical material. The material presented includes a square, rectangle, rhombus, kite, parallelogram, and trapezoid. All material includes the characteristics, forms/images, as well as terms in English, broad formulas and circumference.

Furthermore, *"Kata Sepat"* was developed with the SwishMax4 application. In Flash- based *"Kata Sepat"* this includes the initial display and the game itself. The game is set so that users can choose the level according to their wishes. In each game, three times are given wrong, if all are used then the game is finished. The game was also given instructions about the order of cards that can be played so that players must be observant to exercise it.

The next stage is development, *"kata sepat"* has an initial design in the form of card games that can be played in various ways. While this flash-based *"kata sepat"* has the same rules as the original version *"kata sepat"*.

Figure 1.Preliminary First Prototype Display   **Figure 2**. Preliminary Second Prototype Display

In the preliminary view, the change in figure 1 is the initial appearance of the prototype and figure 2 in the second prototype. The difference is that in the initial prototype there was still a loading display and the screen was not fullscreen. In the second prototype, the main menu is displayed directly from *"kata sepat"* flash-based.
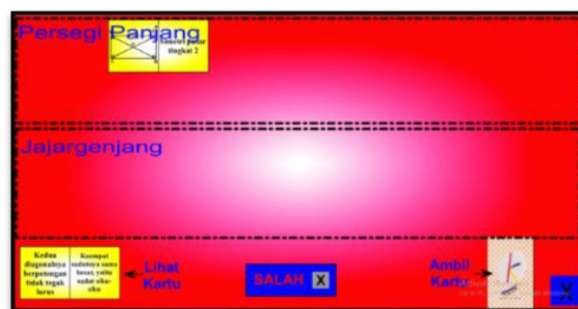
Figure 3 The First Prototype Game Display

Figure 4. The Second Prototype Game Display

The display of the game on *"Kata Sepat"* based on flash also revised. In the initial prototype, it was still linear starting with the loading display, initial display, playing instructions and then proceeding to the game. Whereas in the second prototype there are some adjusted parts. Next is the validation of flash-based *"kata sepat"*. The validation process uses a questionnaire technique with aspects contained in the validation sheet covering 23 statements,navigation, writing, and media content.

Flash-based *"kata sepat"* products were validated by 7 validators consisting of 4 mathematics lecturers and 3 math teachers. The results obtained at an average validity

of 4.56 by referring to table 1 then fall into a very valid category. The average of each aspect is presented in table 2 below.

Table 2. Average per Aspect

No	Aspect	Average
1.	Navigation	4,64
2.	Writing	4,54
3.	Interface	4,50
4.	Contents	4,49

Even though it is included in the very valid category, there are still some entries from the validator. On the aspect of writing, the validator recommends checking to spell and writing to make it easier for students to read. Besides that, it is also suggested to be developed in other high school mathematics material.

Also, the weaknesses of the flash-based *"kata sepat"* are in the inconsistent position of the button, there is no university logo, the operation and the materials. The display of the material is difficult to read, as presented in figure 5.

Figure 5. Material display

The next step that will be carried out is to see the practicality of the flash-based "kata sepat" product for students and the effectiveness of the learning process in the classroom. Besides, it needs to be further developed so that the flash-based *"kata sepat"* product can be used in the device so that it can be accessed wherever and whenever.

CONCLUSIONS

"Kata sepat" flash-based learning medium is the development of a *"kata sepat"* device that has copyright. *"Kata sepat"* flash-based consists of 2 parts, namely the main menu and the game including levels. This development research adopts 4D limited to define, design, and development. At the development stage, the validity is carried out covering navigation aspects, writing, interfaces, and contents. The average validity of flash *"kata sepat"* media is 4.56 in the very valid category. This shows that there is no need for too much revision although there are still some weaknesses in some parts.

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