

## **BUKTI KORESPONDEN PROSIDING**

**Judul :**

**Mobile Web Based Information System for thesis's  
Administration in University PGRI Yogyakarta**

- 1. Accepted and review Abstract (12 Juli 2018)**
- 2. Submit full artikel (30 Juli 2018)**
- 3. Accepted for oral presentation (29 Agustus 2018)**
  - LoA**
  - Invitation Letter**
  - Rundown and parallel session**
  - Program Book**
- 4. Persiapan submit IOP (29 Oktober 2018)**
  - Publish Artikel**

**1. Accepted and review Abstract (12 Juli 2018)**



Meilany Nonsi Tentua &lt;meilany@upy.ac.id&gt;

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**Notification Abstract Review**

1 message

**Admin UpinCase** <upincase@upy.ac.id>  
To: meilany@upy.ac.id

Thu, Jul 12, 2018 at 7:45 PM

Dear Meilany Nonsi Tentua,

I am pleased to inform you that your abstract entitled:

**Mobile Web Based Information System for thesis's Administration in University PGRI Yogyakarta****(Paper ID: 001)**

has been **accepted** for oral presentation at the 1<sup>st</sup> UPY International Conference on Applied Science and Education (1<sup>st</sup> UP-INCASE) 2018, which scheduled to be held in 24-26 October 2018 at The Rich Jogja Hotel, Yogyakarta, Indonesia.

The review results and full paper template were attached in this email, please check to improve your paper.

Important Dates:

Full paper submission deadline: 30 July 2018  
Registration deadline : 25 August 2018Full Paper should be written in English and submitted via email to: [upincase@upy.ac.id](mailto:upincase@upy.ac.id)If you have any inquiries, please do not hesitate to contact us at: [upincase@upy.ac.id](mailto:upincase@upy.ac.id)

See you at the conference.


Thank you.

--

Sincerely,

Marti Widya Sari, S.T., M.Eng  
Up-Incase Editor in Chief  
Email: [widya@upy.ac.id](mailto:widya@upy.ac.id); [upincase@upy.ac.id](mailto:upincase@upy.ac.id)

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**2 attachments** **001\_Upincase\_Abstract Review.docx**  
123K **UpIncase Full Paper Template.docx**  
29K

**Abstract Review Form**

<i>Paper ID</i>	001
<i>Paper Title</i>	Mobile Web Based Information System for thesis's Administration in University PGRI Yogyakarta

	<b>Evaluation aspects</b>	<b>Points</b>
1	The topic of this abstract is relevant for the conference and submitted track. (1 – completely irrelevant, 10 - very relevant)	8
2	The extended abstract contains well defined aim and tasks of the research. (1 - unsatisfactory, 10 - completely)	8
3	The research methodology for the study is appropriate. (1 – completely inappropriate, 10 – very appropriate)	6
4	The supporting evidence in this study is strongly reliable (1 – completely unreliable, 10 - very reliable or NA)	6
5	The results of analysis are correctly interpreted. (1 - very poor, 10 - very well)	6
6	The conclusions are sound. (1 - very poor, 10 - very well)	5
7	The abstract is free from grammatical and spelling errors (1 - very poor, 10 - very well)	6

**Suggestions for improvement**

1. Conclusion doesn't clear to describe the results of research
2. Please check the author guidelines for this abstract format

**Reviewer's recommendation: check one (type letter X in the appropriate box).**

Accept	
Accept with minor revisions (state in "Suggestions for improvement")	<b>X</b>
Invite resubmission for a new review after major revisions	
Reject	



**2. Submit full artikel (30 Juli 2018)**



Meilany Nonsi Tentua <meilany@upy.ac.id>

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## Meilany Article

1 message

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**Meilany Nonsi Tentua** <meilany@upy.ac.id>  
To: "upincase@upy.ac.id" <upincase@upy.ac.id>

Mon, Jul 30, 2018 at 10:11 PM

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 **MEILANY ARTICLE.doc**  
335K

### **3. Accepted for oral presentation (29 Agustus 2018)**

- **LoA**
- **Invitation Letter**
- **Rundown and parallel session**
- **Program Book**



Meilany Nonsi Tentua &lt;meilany@upy.ac.id&gt;

**[URGENT] 001\_UP-INCASE Letter of Acceptance**

2 messages

**Admin UpinCase** <upincase@upy.ac.id>  
To: meilany@upy.ac.id

Wed, Aug 29, 2018 at 1:24 PM

Dear Meilany Nonsi Tentua,

I am pleased to inform you that your abstract entitled:

**Mobile Web Based Information System for thesis's Administration in University PGRI Yogyakarta  
(Paper ID: 001)**

has been **accepted** for oral presentation at the 1<sup>st</sup> UPY International Conference on Applied Science and Education (1<sup>st</sup> UP-INCASE) 2018, which scheduled to be held in 24-26 October 2018 at The Rich Jogja Hotel, Yogyakarta, Indonesia.

The Letter of Acceptance (LoA) were attached in this email, please check it.

Important Dates:

Full paper submission deadline: 31 August 2018  
Registration and Payment deadline: 10 September 2018Full Paper should be written in English and submitted via email to: [upincase@upy.ac.id](mailto:upincase@upy.ac.id)  
Please follow the IOP full paper template. You will get a chance to attend Workshop and Coaching Clinic for International Publication (Free of charge) at Day 2.All payment should be made to:  
Panitia Seminar Internasional UP INCASE UPY  
Bank: BNI  
Account Number: 3530000357  
Then, please send your payment proof to this email.If you have any inquiries, please do not hesitate to contact us at: [upincase@upy.ac.id](mailto:upincase@upy.ac.id)

See you at the conference.

Thank you.

--  
Sincerely,Marti Widya Sari, S.T., M.Eng  
Up-Incase Editor in Chief  
Email: [widya@upy.ac.id](mailto:widya@upy.ac.id); [upincase@upy.ac.id](mailto:upincase@upy.ac.id) **001.pdf**  
209K**Meilany Nonsi Tentua** <meilany@upy.ac.id>  
Draft To: upincase@upy.ac.id

Tue, Oct 23, 2018 at 3:06 PM

I accept the invitation.  
[Quoted text hidden]



10 Agustus 2018

**ACCEPTANCE LETTER**

Dear Author(s),

We are pleased to inform you that your abstract,  
Paper ID: 001

Entitle: "Mobile Web Based Information System for Thesis's Administration in University PGRI Yogyakarta"

Author(s): Meilany Nonsi Tentua, M. Fairuzabadi, Saptaningsih Sumarmi

Has been **accepted** for presentation at the **1<sup>st</sup> UPY International Conference on Applied Science and Education (1<sup>st</sup> UP-INCASE) 2018**, which scheduled will be held on 24-26 October 2018 at The Rich Jogja Hotel, Yogyakarta, Indonesia. It will be publishing in IOP proceeding with **Scopus indexing**.

The full paper must be submitted on 30 Agust 2018.  
Thank you for submitting your paper to this Conference.

Sincerely yours,


Marty Widya Sari, M.Eng.  
Chief Executive  
(1<sup>st</sup> UP-INCASE) 2018

Indonesia, September 25<sup>th</sup>, 2018

To: Meilany Nonsi Tentua

Paper ID 001

Indonesia

Subject:

Invitation letter to participate in the 2018 UPY International Conference on Applied Science and Education

Dear Meilany Nonsi Tentua


The review process of the 2018 UPY International Conference on Applied Science and Education (UPINCASE 2018) has been completed. It is our pleasure to inform you that your paper entitle: **Mobile Web Based Information System for Thesis's Administration in University PGRI Yogyakarta**(Paper ID:001) has been accepted by the technical committee, and must be presented at the UPINCASE 2018, which scheduled to be held in 24-26 October 2018 at The Rich Jogja Hotel, Yogyakarta, Indonesia.

I confirm that you were registered as a Presenter in the conference, thus, we invite you to attend the UPINCASE 2018. Furthermore, you should attend Workshop for International Publication and Coaching Clinic in order to be published by IOP Publishing (Scopus indexed).

Please check the attached document (conference rundown and Yogyakarta map). For further information, you can contact to: Bintang Wicaksono (+62 821 3753 6966) / Septian Aji (+62 856 2922 298), or [upincase@upy.ac.id](mailto:upincase@upy.ac.id).

Sincerely yours,



  
Marty Widya Sari, M.Eng.  
Chief Executive  
(1<sup>st</sup> UP-INCASE) 2018

**2018 UPY International Conference on Applied Science and Education  
(UPINCASE) Rundown, October, 24th – 26th 2018  
Venue: The Rich Jogja Hotel, Yogyakarta, Indonesia**

Time and Duration	Activities	Official
<b>DAY 1</b>		
07.00 - 07.45	Attendance Registration	Committee
<b>Opening Ceremony</b>		
07.45 – 08.00	Opening session	Master of Ceremony
08.00 – 08.10	National anthem “Indonesia Raya”	Choir of UPY
08.10 – 08.20	Greeting from Chair of Committee	Chair of Committee
08.20 – 08.30	Greeting from Rector of Universitas PGRI Yogyakarta	Rector (Dr. Ir. Paiman, M.P)
08.30 - 08.45	Greeting form Head of LLDIKTI (Kopertis V)	Head of LLDIKTI (Dr. Ir. Bambang Supriyadi, CES, DEA)
08.45 - 09.00	Coffee Break	Committee
09.00 – 10.00	Speech from Keynote Speaker 1	Prof. Jasper Pastrano - Iloilo Science and Technology University (ISAT-U, Philippines)
10.00 – 11.00	Speech from Keynote Speaker 2	Prof. Cathy S Lin - National University of Kaohsiung (NUK), Taiwan
11.00 – 12.00	Speech from Keynote Speaker 3	Prof. Prpto Yudono, M.Sc – Universitas Gadjah Mada, Yogyakarta, Indonesia
12.00 – 13.00	Lunch Break + Prayer	Committee
13.00 – 15.30	Parallel Session (Author presentation session 1)	Committee
15.30 – 16.00	Coffee Break + Prayer	Committee
16.00 – 18.00	Parallel Session (Author presentation session 2)	Committee
<b>DAY 2</b>		
07.00 – 08.00	Attendance Registration	Committee

08.00 – 08.15	Opening session	Master of Ceremony
08.15 – 09.15	Speech from Keynote Speaker 4	Prof Allan White - Western Sidney University, Australia
09.15 – 09.30	Coffee Break	Committee
09.30 – 10.30	Speech from Keynote Speaker 5	Prof. Moh. Nuh Dalimin - Universiti Tun Hussein On, Malaysia
10.30 – 11.30	Speech from Keynote Speaker 6	Prof. Dr. Buchory MS, M.Pd – Universitas PGRI Yogyakarta, Indonesia
11.30 – 12.30	Lunch Break + Prayer	Committee
12.30 - 15.00	Workshop for International Publication	Dr. Tutut Herawan Committee
12.30 - 15.00	MoU Assignment	Committee
15.00 – 15.30	Coffee Break + Prayer	Committee
15.30 – 18.00	Paper Coaching Clinic (match to IOP Publishing standard - Scopus indexed)	Committee
<b>DAY 3</b>		
08.00 – 12.00	Visit to School (for ASMAC Philippines Participants)	SEAMEO
08.00 - 15.00	City Tour (optional)	Travel agent






**1<sup>st</sup> UPY International Conference on Applied Science and Education (1<sup>st</sup> UP-INCASE) and 5<sup>th</sup> International Conference on Education for Sustainable Development 2018**

**PROGRAM BOOK**



**Integrated STEM  
(Science, Technology, Engineering and Mathematics)  
for Future Education**

**October 24<sup>th</sup> – 26<sup>th</sup>, 2018**

 **Jogja Rich Hotel, Yogyakarta, Indonesia**

Organized By :

**UP-INCASE**



Supported By :





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## PREFACE

Dear distinguished Authors and Guests,

The organizing committee warmly welcome you to 1st UPY International Conference on Applied Science and Education (UPINCASE) and 5<sup>th</sup> International Conference and Sustainable Development (ICESDev), held on October 24-26, 2018, Yogyakarta, Indonesia.

On behalf of 1<sup>st</sup> UPINCASE and 5<sup>th</sup> ICESDev, we would like to thank all the authors that contributed to this conference. We would like to extend our special gratitude to the Keynote Speakers who support this conference.

1. Prof. Jasper L. Pastrano from Iloilo Science and Technology University, Philippines
2. Prof. Allan Leslie White from University of Western Sydney, Australia
3. Prof. Cathy S. Lin from National University of Kaohsiung, Taiwan
4. Prof. Datuk Mohd Noh Dalimin from Universiti Tun Hussein Onn, Malaysia
5. Prof. Prapto Yudono from Universitas Gadjah Mada, Yogyakarta, Indonesia
6. Prof. Buchory MS from Universitas PGRI Yogyakarta, Yogyakarta, Indonesia

Universitas PGRI Yogyakarta (UPY), Indonesia with Iloilo Science and Technology University (ISAT-U), Philippines, together with SEAMEO Qitep in Math and Indonesian Lecturers Association (ADRI) are willing to held a kind of conference to provide researchers, scientists, engineers and scholar students for presenting paper in the fields of ***Integrated STEM (Science, Technology, Engineering and Mathematics) for Future Education***.

After the peer review process, the submitted papers were selected on the basis of originality, significance and clarity for the purpose of the conference. We hope that the conference results constituted significant contribution to the knowledge in these up to date scientific field.

The topics covered in this conference include Technology for Education, Science and Science Education, Mathematics and Mathematics Education.

We will be committed ourselves to make this conference more and more professional with fully and enjoyable academic research and discussion platform for authors and attendees. Sincerely as always, we look forward to your attention and support to the next UPINCASE and ICESDev.

With our warmest regards,  
Marti Widya Sari

Conference Chair  
October 24, 2018, Yogyakarta, Indonesia





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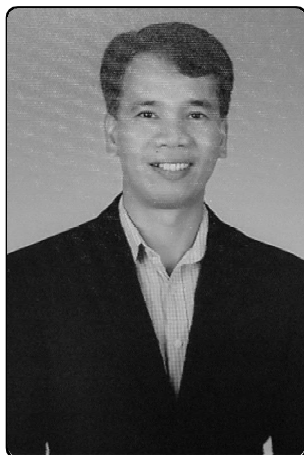
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- 10) Erik Aditia Ismaya, S.Pd, M.A (Universitas Muria Kudus, Indonesia)



## KEYNOTE SPEAKER 1

---



**Prof. Jasper Pastrano**

### **Profile**

Iloilo Science and Technology University  
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### **Work**

Associate Professor

### **Experience**

Iloilo Science and Technology University La Paz, Iloilo City, Philippines 1998 to Present

### **Education**

#### **Doctor of Education -**

Southwestern University – PHINMA, Cebu City, Philippines

#### **Master of Arts in Education major in Physics -**

University of San Agustin Iloilo City, Philippines

#### **Bachelor of Science in Teaching Physics -**

Iloilo Science and Technology University, Iloilo City, Philippines

## Professional

National President (2013-2018)

## Abstract

Keynote : Dr. Jasper L. Pastrano

Keynote Title : The Science Technology Engineering and Mathematics (STEM) Education: A Vital Approach to Sustainable Development in the Philippines

Institution : President, ASMAC Philippines, Associate Professor - Iloilo Science and Technology University Iloilo City, PHILIPPINES

2018 marks the beginning of one significant milestone of Philippine Education – the K+12 Basic Education Curriculum. Boldly, the country took a substantial shift toward finishing 13 years of basic education in order to be at par with the global basic educational standards. With regional integration in the Southeast Asia on its way to fruition, complex but harmonized blend of STEM courses to various disciplines hopes to address past inefficient performances of the country to achieve a level much preferable for social growth and better policy mix for sustainability. This current government acknowledges the importance of full human capital formation, in preparation for future dares and challenges. It fearlessly invests in the learning and trainings of the youth by providing free education for all, together with substantial political transfers like the Pantawid Pampamilya Pilipino Program (4Ps) and Free Hospitalization Program for the poor. It is expected that STEM graduates will reflect and value intently, the free education afforded, and return, in full gratitude, a portion of the rewards of free education as they involve themselves actively into meaningful and more productive employment in the agriculture, industry and services sectors. Given this theoretical Political Framework of Duterte Administration, schools are in the process of improving, teachers' skills are into harnessing and retooling and teachers' welfare are taken care in order to help prepare the youth face what is needed of them in the future – all for one fundamental objective, i.e. to spread domestic happiness that springs from the educated families, to the learned communities and to the entire well-informed society.

## KEYNOTE SPEAKER 2

---



**Prof. Cathy S Lin**

### **Education**

Doctor of Philosophy (Management Information System) 2003  
Dept. of Information Management,  
National Sun Yat-Sen University,  
Taiwan, R.O.C.  
Master of Management Information System 1998  
Dept. of Information Management,  
National Chung Cheng University,  
Taiwan, R.O.C.

### **Work Experience**

Associate Professor of Information Management, National University of Kaohsiung  
Application Systems Section Chief, Library & Information Center, National University  
of Kaohsiung  
Vice Director of Social Network Innovation Center, National University of Kaohsiung

### **Research Interests**

Open Government Data  
Data Ethics  
Information Ethics  
Social Commerce  
Management Information Systems

### **Refereed Journal Publications (Selected)**

- Lin, C.S.\***, "Educating Students' Privacy Decision Making through Information Ethics Curriculum," *Creative Education*, 7, January 2016, pp.171-179. (Open Access)
- Kuo, F.Y., Tseng, C.Y., and **Lin, C.S.\***, "In Social Q&A, Do Topicality and - 2 - Crowdvoting Affect Patterns of Argumentation Elements?", *Asian Journal of Information and Communications*, 7:2, 2016.
- Lin, C.S.\*** and Wu, S., "Exploring antecedents of online group-buying: Social commerce perspective," *Human Systems Management*, 34:2, 2015.
- Kuo, F.Y., Wu, W.H., and **Lin, C.S.\***, "An Investigation of Self-regulatory Mechanisms in Learning to Program Visual Basic," *Journal of Educational Computing Research*, 49:2, 2013, pp.225-247. (SSCI)
- Kuo, F.Y., Tseng, C.Y., Tseng, F.C., and **Lin, C.S.\***, "A Study of Social Information Control Affordances and Gender Difference in Facebook Self-Presentation," *Cyberpsychology, Behavior, and Social Networking*, 16:9, September 2013, pp.635-644. (SSCI)

### **Professional Service (Selected)**

- Reviewer, *Journal of the Association for Information Systems* (SSCI)
- Reviewer, *Information Technology & People* (SSCI)
- Reviewer, *Information Systems Journal* (SSCI)
- Reviewer, *Computers in Human Behavior* (SSCI)

### **Associations(selected)**

- Association for Information Systems (AIS Society)
- International Academy for Information Management (SIGED: IAIM)
- Director of Chinese Business Ethics Education Association

### **Honors and awards(selected)**

- Research Grant, Ministry of Science and Technology, Taiwan. 2004 till now.
- Research Grant, Taipei Computer Association, Taiwan. 2017 till now.
- Research Grant, Ministry of Education, Taiwan. 2015-2016.

### **Phd Dissertation Committee(selected)**

- Auckland University of Technology, Department of Business Information Systems, New Zealand. 2016, 2012.
- National Cheng Kung University, Institute of Computer Science and Information Engineering, Taiwan. 2015.
- National Kaohsiung First University of Science and Technology, Department of Information Management, Taiwan. 2013.
- National Cheng Kung University, Institute of Information Management. 2008.

## **Abstract**

Keynote : Cathy s. Lin, Associate Professor

Keynote Title: The power of open data in education to make learning better

Institution : Department of Information Management, National University of Kaohsiung,  
Taiwan, R.O.C.

Education is the foundation for a country economic and social growth. Through education, people have the opportunity to learn knowledge and skills; this is an essential means for individuals to get their capabilities. Different stages of learning can nurture people to become excellent talents. To the youth, who are the future of any economy, national education is indispensable for the future of children, not only as citizens and consumers but also as workforces. The ability of individuals learned in school contributes to personal growth, social advancement, business competitiveness, and national growth.

We are in the era of rapid technological advancement, the values of information and communication technology (ICT) offer an entirely new choice of opportunities to enrich the teaching-learning situation. An important issue is to connect ICT in education to cultivate the competitiveness of the workforce and talents. At present, there are many significant breakthroughs in technology, and some technological tendencies worthy of attention will bring about changes in the future. Among the technologies, this keynote emphasizes on the topic concerning open data techniques to see how open data can help teachers and students embraces values and potentials for transparency, commercial & social value, participation & engagement, and making learning better.

## KEYNOTE SPEAKER 3

---



**Prof. Prpto Yudono**

### **Profile**

Prpto Yudono - Doctor (UP Los Banos, Phillippines), M.Sc (UP Los Banos, Phillippines), Ir (Faculty of Agriculture, UGM)

Prof. Dr. Ir Prpto Yudono M.Sc was born in Wates, on November 14, 1949. He was a professor at the Faculty of Agriculture, UGM, Department of Agriculture.

His field of expertise is in the field of seed science and technology - agronomy.

Prof. Prpto had received several professional training including international Training on Seed Technology for Vegetable Crops (1983). International Training on Experimental Field Management (1981), and National Training on Seed Quality Test (1978).

Prof. Prpto began working as a teaching staff at UGM in 1979 until now. in addition to being a lecturer, in 2004 - 2010 he also served as chairman of the postgraduate study program for S2 and S3, agronomy and in 2008-2010 served as chairman of the agronomy S1 study program at UGM. Apart from being active in UGM, Prof. Prpto was also the chair of the DIY seed forum in 1996-2016 and from 2016 has served as the head of the planning team for the program, Jogja Benih, Sekda DIY.

Various kinds of research on seeds have been carried out by Prof. Prpto, including research on the systems and technology of annual crop cultivation in samas bantul beach sand land in 2016.

Prof. Prpto also often publishes written works in the form of articles in international journals, including "Appliction of Arbuscular mycorrhizal fungi accelerated by the growth of shoot roots of sugarcane seedlings in the nurses. Australian Journal of Crop Science



## **Abstract**

Keynote : Prof. Dr. Ir Prapto Yudono M.Sc

Keynote Title: Natural Science, Mathematic, Technology and Engineering as Integrated Education for Undergraduate Study Program of Agronomi, Faculty of Agriculture, Gmu

Institution : Universitas PGRI Yogyakarta

Based on tracer studies results on undergraduate alumni of Agriculture Faculty, mainly Agronomy Study Program GMU, it is mentioned that these undergraduate alumni professions are managers, entrepreneurs, education staffs and researchers. Professions as such needs more preparation, in terms of work readiness, soft skill, English and Information Technology. Related to agronomy knowledge are basic mathematics, physics, biochemistry with physiology practices and plant biochemistry and biometric.

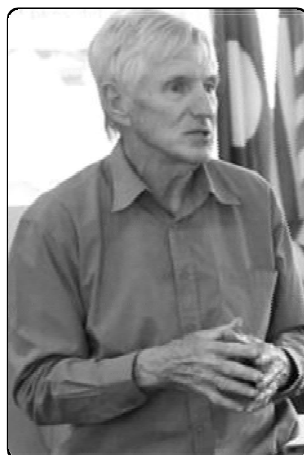
Based on these necessity and to enhance undergraduate competitiveness, a curriculum revision is made to fulfill *KKNI (Kerangka Kualifikasi Nasional Indonesia/National Qualification Frame of Indonesia)* for agriculture undergraduates level. The core of this curriculum are main competence, supportive competence and profession competence.

The duration of this curriculum is 8 semester with 145 *sks (satuan kredit semester/semester credit unit)* that contains basic mathematics, physics and biochemistry, each 3 *sks*, with 6 *sks* of its practices and technology including practices (30 *sks*) with a 100 *sks* total. One semester credit unit is equivalent to 50 minutes lecture in class or 150 minute in practice at laboratorium/field per week. There are 16 weeks in one semester.

The rest are Indonesian Language, Computer, Management and Entrepreneur. The final assignment is writing a scientific article (*skripsi*) based on the application of knowledge received in campus, integrated in a semester credit unit of 8 *sks*, trying to apply things that student has learned before, by doing research including determining problems, goals, hypothesis, methods and design of research, data observed and analysis, discussion and making conclusion. Students have to be able to communicate the articles through publishing the article to a journal.

## KEYNOTE SPEAKER 4

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**Prof. Allan White**

### **Profile**

Allan Leslie White - Dip T (Sydney Teachers College), BA (Macquarie University), MEd (University of NSW), Grad Dip Ed (University of South Australia), PhD (The Sydney University), GAustMS (Australian Mathematics Society), MACE (Australian College of Education).

Prof. Allan White is a Life Member of the Mathematical Association of New South Wales and received an Outstanding Professional Service award from the NSW Professional Teachers Council.

Recently retired as Associate Professor in Mathematics Education for the School of Education, University of Western Sydney after 25 years in tertiary service. He has a long history of working throughout Australia and South East.

Before working in the tertiary sector, he taught for twenty-five years in primary and secondary schools in three Australian states. At different times he has held the positions of School Principal, Head of Mathematics, Head of Mathematics and Science, and Director of Boarding. He has also worked in special schools for intellectually handicapped and emotionally disturbed students.

Over many years he has been involved in consultancies with many national and international bodies, and has produced over 250 books, research papers and teaching publications. He continues in the roles of editor, paper reviewer, and member of the international editorial panels for many national and international journals.

He is also likes to ride surfboards and he is a published cartoonist.

## **Abstract**

Keynote : Prof Allan Leslie White

Keynote Title : Understanding Is The Key To Integrated STEM (Science, Technology, Engineering and Mathematics) for Future Education

Institution : SEAQiM Joyakarta

In 2018 the Indonesian Ministry of Industry (KPRI) released a document 'Making Indonesia 4.0', in response to the Fourth Industrial Revolution, setting out the Indonesian aspirations, the five focus sectors, the ten national priorities, the economic benefits, the job creation, and the next steps to ensure Indonesia's future development. The success of such a plan rests with the development of a workforce with strong STEM abilities and requires a transformation of the education system. A transformation of the system is needed which is different to a reform as reform concentrates upon the existing structure and system whereas a transformation works to create different systems and structures. The basis for success lies in the hands of Indonesian STEM teachers and lecturers. If the results of their efforts do not develop STEM understanding in their students then development will not proceed. How the brain works to produce understanding is crucial knowledge for teachers and lecturers of all STEM disciplines. This presentation will discuss the latest developments in brain research, and the teaching behaviours that are conducive to producing students with higher order creative thinking skills, the ability to solve complex problems and the capacity for constructing meaning or understanding.

## KEYNOTE SPEAKER 5

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**Prof. Moh. Nuh Dalimin**

### Profile

**Full Name** : Professor Datuk Dr. Mohd Noh Bin Dalimin @ Dolimin  
**Faculty** : Faculty of Applied Sciences and Technology (FAST), UTHM  
**Department** : Physics and Chemistry  
**Email** : noh@uthm.edu.my  
**Designation** : VK 5 – Professor

### Field of Expertise

Field Category (KPT) : Physical Sciences  
Field (KPT) : Condensed Matter Physics (Experimental)  
Field of Specialization (KPT) : Electronic, Electrical, Materials, Renewable Energy, Solar Photovoltaics

### Academic Qualification

1981 PhD, Solid State of Physics, DIC Blackett Laboratory, Imperial College of London  
1977 MSc, Solid State of Physics Bedford College, University of London  
1975 Sarjana Muda, Fizika FMIPA, Universitas Gadjah Mada, Yogyakarta

### Management Experience

**2008-2016** Vice Chancellor, UTHM (8 years)  
**2005-2008** Vice Chancellor, UMS (3 years)

- 1998-2005** Deputy Vice Chancellor, UMS (7years)  
**1995-1998** Dean, School of Science and Technology, UMS (3 years)  
**1992-1995** Deputy Dean, Faculty of Science and Natural Resources, UKM (3years)  
**1990-1992** Head, Materials Science Program, FSFG, UKM (2 years)

### **Publications (until 20 Sept 2018)**

H index = 8, Citation = 238, i10-index = 8

(List of publications enclosed)

### **Abstract**

Keynote : Prof. Moh. Nuh Dalimin

Keynote Title : Linking Education for Sustainable Development within University's Teaching and Learning to improve Graduate Employability

Institution :

This paper considers the effects of education for sustainable development (ESD) on undergraduates within higher education (HE), through learning outcomes from courses and campus activities. It is high on the agenda of global governments and educational authorities to encourage organisations and businesses to become more sustainable, which can be achieved primarily by educating future decision makers, professionals and leaders. Firstly, an overview of sustainability and ESD in HE is offered; then, findings and further discussion, contributing to the knowledge and creating opportunities for further explorations in the field. The information mainly obtained from courses taught at Universiti Tun Hussein Onn Malaysia (UTHM), and from student discussion groups. This paper highlights an improving sustainability skills and confidence between student, and a strong interest in the subject, and identifies potential, leading to an improved sustainability literate graduates in the employment market.

## KEYNOTE SPEAKER 6

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**Prof. Dr. Buchory**

### **Profile**

Prof. Buchory was born on April 25, in Magetan, East Java. currently Prof. Buchory works at UPY in the teaching and education faculty. prof buchory teaches undergraduate and postgraduate programs. the courses he taught include Pancasila education and Pancasila philosophy, State science and Indonesian Republican state law (undergraduate), social science education research methodology, and social life behavior patterns (postgraduate).

While working at UPY, Prof. Buchory had served as university chancellor for 2 periods, namely in 2013 - 2017 and in 2001 - 2009. Director of UPY postgraduate programs in 2009-2013, vice rector 1 UPY in 1994 - 1999 and Dean of FKIS IKIP PGRI Yogyakarta in 1990 - 1994.

In addition, he is also active as a Tim Gugus Pemikir Pengurus Besar PGRI and members of BAN-PT assessors.

Prof. Buchori's research interest is in the field of developing character education.

### **Abstract**

Keynote : Prof. Buchory

Keynote Title : The Development of Teaching Methods for Future Education

Institution : Universitas PGRI Yogyakarta

Education is an important pillar to develop the nation's intellectual life. It also serves as an absolute requirement to build character, improve just social wealth. Education process runs in interactive, inspiring, and joyful ways. It changes, motivates learners to have active participation and to provide spacious rooms for initiators, creativity, and independence based on learners' talents, interests, physical and psychological development. Future education encounters various challenges, including globalization, information and

technology, and communication advances, competence-based life competition, quality revolution, sustainable quality improvement. Indonesian national education also encounters challenges in preparing the generation to become the main actor of the 100<sup>th</sup> year Indonesian Independence of 2045, i.e., (a) main generation having higher achievement to create greater, advanced, dignified Indonesian, (b) “gold character” generation with excellent competences, characters, lifestyle, religious values and fighting spirit in life, (c) a generation with excellent attitudes, thinking pattern, concept and civilization of smart, broad, deeper, productive, creative, innovative, and futuristic insights. To this end, educational process adopts: (1) Constructivist Learning, (2) Inquiry Learning, (3) Cooperative Learning, (4) Science Technology and Society Learning, (5) Paper-based Learning, (6) ICT-based learning, (7) E-Learning, and (8) Blended Learning methods.





# GENERAL INFORMATION

## MAP



## VENUE



### **The Rich Jogja Hotel, Yogyakarta, Indonesia**

At: Jl. Magelang no.KM.6 No.18, Kutu Patran, Sinduadi, Mlati,  
Kabupaten Sleman, Daerah Istimewa Yogyakarta 55284

# CONFERENCE PROGRAM

## Rundown

2018 UPY International Conference on Applied Science  
and Education (UPINCASE) Rundown, October, 24th – 26th 2018

**Venue:** The Rich Jogja Hotel, Yogyakarta, Indonesia

Time and Duration	Activities	PIC
<b>DAY 1</b>		
07.00 - 07.45	Attendance Registration	Committee
<b>Opening Ceremony</b>		
07.45 – 08.00	Opening session	Master of Ceremony
08.00 – 08.10	National anthem “Indonesia Raya”	Committee
08.10 – 08.20	Greeting from Chair of Committee	Chair of Committee
08.20 – 08.30	Greeting from Rector of Universitas PGRI Yogyakarta	Rector (Dr. Ir. Paiman, M.P)
08.30 - 08.45	Greeting from Head of LLDIKTI (Kopertis V)	Head of LLDIKTI (Dr. Ir. Bambang Supriyadi, CES, DEA)
08.45 - 09.00	Coffee Break	Committee
09.00 – 10.00	Speech from Keynote Speaker 1	Prof. Jasper Pastrano - Iloilo Science and Technology University (ISAT-U, Philippines)
10.00 – 11.00	Speech from Keynote Speaker 2	Prof. Cathy S Lin - National University of Kaohsiung (NUK), Taiwan
11.00 – 12.00	Speech from Keynote Speaker 3	Prof. Prpto Yudono, M.Sc – Universitas Gadjah Mada, Yogyakarta, Indonesia
12.00 – 13.00	Lunch Break + Prayer	Committee
13.00 – 15.30	Parallel Session (Author presentation session 1)	Committee
15.30 – 16.00	Coffee Break + Prayer	Committee
16.00 – 18.00	Parallel Session (Author presentation session 2)	Committee

<b>DAY 2</b>		
07.00 – 08.00	Attendance Registration	Committee
08.00 – 08.15	Opening session	Master of Ceremony
08.15 – 09.15	Speech from Keynote Speaker 4	Prof Allan White - Western Sidney University, Australia
09.15 – 09.30	Coffee Break	Committee
09.30 – 10.30	Speech from Keynote Speaker 5	Prof. Moh. Nuh Dalimin - Universiti Tun Hussein On, Malaysia
10.30 – 11.30	Speech from Keynote Speaker 6	Prof. Dr. Buchory MS, M.Pd – Universitas PGRI Yogyakarta, Indonesia
11.30 – 12.30	Lunch Break + Prayer	Committee
12.30 - 15.00	Workshop for International Publication	Dr. Tutut Herawan Committee
12.30 - 15.00	MoU Assignment	Committee
15.00 – 15.30	Coffee Break + Prayer	Committee
15.30 – 18.00	Paper Coaching Clinic (match to IOP Publishing standard - Scopus indexed)	Committee
<b>DAY 3</b>		
08.00 – 12.00	Visit to School (for ASMAC Philippines Participants)	SEAMEO
08.00 - 15.00	City Tour (optional)	Travel agent

## SESSION PROGRAM

Room		ROOM 1		
Moderator		Dekeng Setyo Budiarto and Munir		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	001	Meilany Nonsi Tentua, M. Fairuzabadi, Saptaningsih Sumarmi	Mobile Web Based Information System for Thesis's Administration in University PGRI Yogyakarta
2	13.15 - 13.30	004	Riawan Yudi Purwoko, Yuli Widiyono, Marsigit, Erni Puji Astuti, Mishinta	Batik Nusantara Pattern In Design Of Mathematical Learning Model For Elementary School
3	13.30 - 13.45	009	K Saddhono, I K Sudarsana, A Iskandar	Implementation of Indonesian Language Learning Based on Information and Communication Technology in Improving Learning Achievement of Senior High School Students in Surakarta
4	13.45 - 14.00	010	K Saddhono, A Amalia, I K Sudarsana, A Indahingwati	Multimedia Development of Basic Sign Languages for Deaf Children: Study in Special Schools in Surakarta
5	14.00 - 14.15	011	K Saddhono, A Hasibuan, I Bakhtiar	Facebook as a learning media in Teaching Indonesian to Speakers of Other Languages (TISOL) for Foreign Students in Indonesia
6	14.15 - 14.30	012	K Saddhono, I Mulyaningsih, I K Sudarsana, R T Manurung	Implementation The Attitudes of Indonesia Language Teachers towards The Usage of Information Technology and Communication in Teaching Primary School in Surakarta City
7	14.30 - 14.45	025	Nendra Mursetya Somasih Dwipa, Laela Sagita, Titis Sunanti	An Analysis of Student Satisfaction Level on Service and Facilities Quality Using Weighted Least Squares: A Study on PGRI Yogyakarta University
8	14.45 - 15.00	036	Ian John M. Galupar	Robotics Instruction: Effect On Junior High School Students' Technological Literacy And Proficiency In Electronics
9	15.00 - 15.15	037	Dr. Ju-im T. Jimlan	Heart-Centered Management Training Program For Public Secondary School Principals In The Island Of Panay, Philippines
10	15.15 - 15.30	038	Noel L. Dominado, Ed.D.	Predictors Associated with the Curricular Performance of Student Athletes

11	15.30 - 15.45	039	Clemencia O. Malawani, Jean S. Caballo	Use of Video as an Enhancement in Teaching Reproductive System and their Functions
12	15.45 - 16.00	040	Cynthia L. Morga	Translated Literatures of Western Visayas: An Evaluation
13	16.00 - 16.15	041	Irene Divinagracia, Suganob, Ph.D	Implementing Hangaway Mobile Game for Teaching Grade 11 Statistics and Probability
14	16.15 - 16.30	042	Pearly Jade N., Embajador	Glossary of Selected Hiligaynon Words: Development and Evaluation
15	16.30 - 16.45	043	Evelyn M. Cordero	Literatures of Western Visayas: Collection and Categorization
16	16.45 - 17.00	126	Bagus Wahyu Setyawan & Kundharu Saddhono	Cinema kethoprak (cineprak) as a way to teaching the Javanese traditional drama using multimedia technology
17	17.00 - 17.15	146	Dr Neeta Mishra	Art Appreciation
18	17.15 - 17.30	161	Pudjo Suharso, Sukidin & Suratno	THE IMPLEMENTATION OF IPS EDUCATION AT HIGHER SCHOOL (Case study at SMA Negeri Arjasa and Madrasah Aliyah Negeri 2 Jember)
19	17.30 - 17.45	164	Armida Natividad	The Establishment of Youth - in - School Council to Prevent Students from Leaving School
20	17.45 - 18.00	165	Czarina Tamano	My Dragon Fruit Skin, Color is Seen
21	18.00 - 18.15	166	Eric Paul Benson	Organizational Commitment and 21 <sup>st</sup> Century Skills Among Teachers of Caraga South District Division of Davao Oriental

Room		ROOM 2		
Moderator		Palupi Sri Wijayanti and Bintang Wicaksono		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	015	K Saddhono, Y M Raharjo, Nurroini	Instagram as Media Development of Religious Character Education Values among Teenagers
2	13.15 - 13.30	019	Dwi Ermayanti Susilo, Achmad Daeng GS, Sugeng Suprpto, Juli Nurdiana, Rumanintya Lisaria Putri	An analysis of Regional inancial Management Information ystem (SIMDA) In improving the Quality of Financial Statements on Government Jombang Regency
3	13.30 - 13.45	027	Kintoko, Padrul Jana	Development of Math Module based on Jogja Culture
4	13.45 - 14.00	046	Julie Gay B. Quidato, PhD	Western Visayas Folklore: A Socio-Cultural Analysis
5	14.00 - 14.15	047	Juvenal S. Bardaje Jr., MAT, GDCE	Teachers on the Move: An Assessment on the Effective Use of Kindergarten Mathematics Instructional Materials
6	14.15 - 14.30	048	Ma. Maya V. Tumalon, PhD.	Level of Competence Among Kindergarten Teachers in Handling Blocks of Time: Proposed Training Program
7	14.30 - 14.45	049	Raymund M. Igcasama, Imee A. Borinaga, Edward C. Mutia, Christine L. Suarez, Jeffrey C. Balogo	Explaining the Academic Performance of Grade 7 Students as Influenced by Social Media
8	14.45 - 15.00	050	Romnick M. Ureta	Calculation of Special Angles in Trigonometry via Visual Mathematical Hand Mnemonic Tactic (VMHMT)
9	15.00 - 15.15	051	Salvador P. Bacio, Jr., Roberto G. Sagge, Jr.	Development and Production of Computer Generated Instructional Materials for College Geometry
10	15.15 - 15.30	052	Roberto G. Sagge, Jr., Salvador P. Bacio, Jr.	Evaluation of the Developed and Produced Computer Generated Instructional Materials for College Geometry
11	15.30 - 15.45	069	Ana Liza P. Caliwag	Community Service As A Teaching Method And Its Impact On Student Performance
12	15.45 - 16.00	110	Suripah Amin & Heri Retnawati	Student Mathematical Connection Ability in Representing Multiplication at the Elementary School
13	16.00 - 16.15	111	I Made Gunamantha & Nyoman Dantes	Climate Change Literacy of Elementary School Students in Buleleng District, Bali Province, Indonesia
14	16.15 - 16.30	112	Sari Sri Sukmawati & Yudhiakto Pramudya	Light Intensity Measurment on Sun-Earth System Model Using Logger Pro Light Sensor

15	16.30 - 16.45	113	Wharyanti Ika Purwaningsih, E P Astuti, P Nugraheni & N P Rizkyaningtyas	Characteristics of intuitive thinking students in solve mathematical issue based on cognitive style
16	16.45 - 17.00	127	K Saddhono & Rio Devilito	Cross-cultural bussiness influence based on communication and social media to improving marketing traditional drinks jamu in Surakarta
17	17.00 - 17.15	132	Bernardita C. Lauron, Helen P. Lauron	Anadara Skin Ointment
18	17.15 - 17.30	138	KALPANA DOGRA	Perception of Gender Inequality
19	17.30 - 17.45	167	Franco Gil A. Vega	A Casual Model on Personal Attributes' Influence to Secondary School Teachers' sense of Efficacy
20	17.45 - 18.00	168	Genevieve Aponte, Allen Matthew Apolinario, Jed Dumo-os & Frits Carmelo	DNA Extraction and Characterization of Escherichia Coli (ATCC) Using Different Liquid Detergents as Surfactants
21	18.00 - 18.15	169	Grace Edmar Elizar-Del Prado	The Environmental Kuznets Curve: As It Appears in the Rice Sector of the Philippines



Room		ROOM 3		
Moderator		Ratna Purnama Sari and Theofilus Bayu		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	029	Cicilia Novi Primiani, Umie Lestari, Mohammad Amin, Sutiman B. Sumitro	Potential estrogenic yam bean ( <i>Pachyrhizus erosus</i> ) in blood and reproductive organs of rat female
2	13.15 - 13.30	033	Yanuar Bagus Arwansyah, Nina Widyarningsih	The Use of Edmodo-based E Learning Media in Improved Reading Interest with Whole Language Approach
3	13.30 - 13.45	034	Endang Sri Maruti	Technology In Traditional Material: Savi In Tembang Dolanan
4	13.45 - 14.00	053	Nurhayati, Dina Anika Marhayani	Meta-Analysis Modification of Learning Method of Student Facilitator and Explaining (SFE) and Time-Token
5	14.00 - 14.15	054	Dr. Mukodi, M.S.I., Dr. Haryono, M.Pd., Afid Burhanuddin, M.Pd.	Perception and Modelling of Anti Corruption Education: Critical Research In Pacitan Educational Institutions, Indonesia
6	14.15 - 14.30	055	Syarifuddin, T Nusantara, A Qohar & M Muksar	The Identification Difficulty of Quantitative Reasoning Process toward the Calculus Students' Covariation Problem
7	14.30 - 14.45	056	Dian Permatasari Kusuma Dayu, Sugirin & Haryanto	Media Usage "Bigbook Writingstory Based Brainwriting Learning" into Writing Indonesia Language Lesson at Elementary School
8	14.45 - 15.00	058	Moh Toharudin, Totok Sumaryanto Florentinus, Rasdi Ekosiswoyo & Joko Sutarto	Effect of Training and Work Motivation to Teacher Performance sd Inklusif in Brebes District
9	15.00 - 15.15	072	Elenita Santos, Ordovez	APEC Learning Community Builders (ALCOB) Green Heroes
10	15.15 - 15.30	073	Elvira Agno, Tubungbanua	Technology Innovations Initiated, Leadership Practices and Performance of Secondary School Heads: Bases for Enhancement Development Program
11	15.30 - 15.45	074	Jefferson E. Flores	LNU Pre-service Secondary Science Teachers' Scientific Literacy and Science Teaching Self-Efficacy
12	15.45 - 16.00	075	Joseph G. Taban & Edelyn A. Cadorna	Students' Difficulty in Solving Algebraic Expressions and Equations: Focus on Structure Sense
13	16.00 - 16.15	076	Joyce M. Magtolis; Antonio E.; Batomalaque	Constructively aligned teaching sequence (CATS): A tool for teaching organismal biology in STEM senior high school education

14	16.15 - 16.30	077	Judy B. Dunton; Wilhelmina S. Co	Spiral Progression Approach in Teaching Science and the Performance of Learners in District I, Capiz
15	16.30 - 16.45	078	Justina T. Lantajo; Roderick L. Tipolo	Student-Team Achievement Division (STAD) and Its Effect on the Academic Performance of Grade 8 Students
16	16.45 - 17.00	079	<i>Kris B. Laurente</i>	He is dancing her groove?: coping gender stereotyping in dance
17	17.00 - 17.15	080	Larzy Varghees	Anti - Bullying Mission - A step towards betterment of education
18	17.15 - 17.30	081	Lucia G. Maminta	Level of Awareness on Disaster Preparedness
19	17.30 - 17.45	170	Jasper L. Pastrano, EdD	Environmental Literacy of 8 <sup>th</sup> Grade Students in the Philippines
20	17.45 - 18.00	171	Jojet Castronuevo, EdD	The Internationalization Program of Iloilo Science and Technology University, Lapaz, Iloilo City, Philippines
21	18.00 - 18.15	172	Judel Protacio	Development of Geometry Modules Anchored on the Conceptualization and Contextualization Skills of Pre-Service Mathematics Teachers

Room		ROOM 4		
Moderator		Laela Sagita and Andi Dian Rahmawan		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	062	Julia Kurniasih, Ema Utami & Suwanto Raharjo	Query Optimization : A Metaheuristic Approach using Memetic Algorithm
2	13.15 - 13.30	063	Dwi Fahrudin, Mardiyana & I Pramudya	Problem Solving Ability by Polya Steps on Material Trigonometric Reviewed from Self-Regulated Learning
3	13.30 - 13.45	066	Hendra Erik Rudyanto, A Winanto, A Novianto & M Santika	Open Ended Mathematical Problem Solving: an Analysis of the Creative Thinking Ability of Elementary School Students
4	13.45 - 14.00	084	Maria Genesis S. Aton	Behavior And Academic Performance Of Overseas Filipino Workers' (OFWS) Children
5	14.00 - 14.15	085	Maricris B. Bautista	Orton-Gillingham Approach And Grade I Pupils' Reading Ability
6	14.15 - 14.30	086	Marlyn P. Bongoyan	School – based orientation of deped mandated activities, it's effects to the level of commitment among central school teaching and non –teaching staff; proposed enhancement measures
7	14.30 - 14.45	087	Dr. Merlinda; Tabaldo-Tucar; Mr. Nick John B. Solar	Choose your Patty: The Sensory Characterization and Consumer Acceptance of Burger Patties with Oyster Mushroom ( <i>Pleurotus ostreatus</i> ) Enrichment
8	14.45 - 15.00	088	Noel L. Dominado, Ed.D.	Predictors Associated with the Curricular Performance of Student Athletes
9	15.00 - 15.15	089	Paulo C. Abrico; Analyn C. Bacongallo	Sayaw, Antique: Inside Antiqueños' Wedding Dance Ritual
10	15.15 - 15.30	090	Raymund B. Moreno	Antioxidant Activity Of Ginger ( <i>Zingiber Officinale</i> ), Turmeric ( <i>Curcuma Longa</i> ) And Shell Ginger ( <i>Alipinia Zerumbet</i> )
11	15.30 - 15.45	091	Remedios Canda Bulac	Singapore Bar Model Approach In Teaching Math VI
12	15.45 - 16.00	092	Christine Boiser, Marilou Canete, Janice Dobles, Chresna Torrevillas, and Rheo A. Tuyogon	Factors That Affect Learners at Risk Of Getting Failing Grades: Proposed Remedial Measure
13	16.00 - 16.15	093	R Y Purwoko, P Nugraheni, D Instanti	Implementation of Pedagogical Content Knowledge (PCK) model in high school
14	16.15 - 16.30	094	Ary Purwantiningsih, Pudjo Suharso	IMPROVING TEACHER PROFESSIONALISM TOWARD EDUCATION QUALITY IN DIGITAL ERA

15	16.30 - 16.45	095	Sunu Dwi Antoro, Herman Dwi Surjono, Bambang Sugeng	Designing Initiation Materials for Promoting Autonomous Learning in Blended Learning EFL Classroom
16	16.45 - 17.00	096	Christina Rochayanti, Ida Wiendijarti, Kuswarsantyo, Rosalia Indriyati Saptatiningsih	Communication Technology as Media Preservation of Local Culture
17	17.00 - 17.15	128	Nely Indra Meifiani, Urip Tisngati, Dwi Cahyani Nur Apriyani, Martini	Modeling for Anxiety Data toward Students Achievement in Factorial Design Materials
18	17.15 - 17.30	160	Hari Purnomo Susanto, T Sutarti, & A S Hafidah	Generating Fuzzy Interval Data And Its Application To Find The Relation Between Math Anxiety With Self Efficacy Using Fuzzy Correlations Analysis
19	17.30 - 17.45	173	Lauro E. Estecomen & Renerio S. Mucas	Greening Program in Higher Education Institution
20	17.45 - 18.00	174	Lovely Rollaine B. Cruz	Modified Lab Rotation Model: A Blended E-Learning Approach to Improve Student's Conceptual Understanding of English Verb Tense and Aspect
21	18.00 - 18.15	175	Ma. Aletha Hobilla	Needs Assessment Survey of Barangay Nabitanan, La Paz, Iloilo City: A Basis for Extension Services of ISATU

Room		ROOM 5		
Moderator		Septian Aji and Kintoko		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	103	Alfi Suciayati	Student Perception of Seaweed Resources at Amal Beach of Tarakan City
2	13.15 - 13.30	020	Niken Wahyu Utami	Working Memory on Mathematical Problem Solving Activity: Case Study in Low Ability Students
3	13.30 - 13.45	021	Marti Widya Sari, Sandy Yulissena	Radio Web as an Interactive Instructional Media for Student
4	13.45 - 14.00	024	Dhian Arista Istikomah, Padrul Jana	Analysis of Mathematical Problem Solving Ability in The Implementation of Apos Modified Learning Model (M-APOS)
5	14.00 - 14.15	068	Laela Sagita, Marti Widya Sari, Nendra MS Dwipa	Community Service of Traditional Lurik and Leather Material Processing to Improve Market Access
6	14.15 - 14.30	098	Rosalia Indriyati Saptatiningsih, Septian Aji Permana	Building Early Child Character Through Educational Technology
7	14.30 - 14.45	104	Ainun Fuadah & Yudhiakto Pramudya	Acoustic analysis on the voice of choir singers using <i>Spectroid</i>
8	14.45 - 15.00	106	Tity Kusrina & Septian Aji Permana	Community Empowerment Of Muarareja's Vulnerability In Implementation Of PKK Tourism Town Of Tegal City
9	15.00 - 15.15	109	Paiman, Ardiyanta, C. Tri Kusumastuti, Muh. Kusberyunadi, Ahmad Bahrum	Response Of Nut Grass On Drought Stress In Various Of Soil Types
10	15.15 - 15.30	124	Ika Krisdiana	Research-Based Oriented Student Worksheet Development For Increasing Creative Thinking Skills In Solve And Apply Problems
11	15.30 - 15.45	125	Reza Kusuma Setyansah & Davi Apriandi	Abstract Up Incase
12	15.45 - 16.00	133	CHERRYL C. MALONISIO	A Comparative Analysis of Learning Styles and Teaching Practices: Its Implication on College Students' Science Anxiety
13	16.00 - 16.15	134	DR. MARIA MELSA S. ARCE	The Effect Of Ibse Integration to The K-12 Grade -9 Curriculum at Passi National High School, Passi City, Iloilo s.y. 2017-2018
14	16.15 - 16.30	135	Edna B. Nabua, Ava Clare Marie O. Roble, Roger Vincent B. Nabua	Vulnerability And Resiliency Of Some Coastal Schools In The Philippines

15	16.30 - 16.45	136	Fernan P. Tupas, Ph. D., and Ma. Theresa G. Palmares, Ed. D.	ENHANCING ACTION RESEARCH SKILLS AND KNOWLEDGE OF SCIENCE AND MATHEMATICS TEACHERS THROUGH INTESIFIED WORKSHOP
16	16.45 - 17.00	137	Iryn Baldona de los Santos	School Climate and Public Secondary School Performance In the Division of Iloilo City and Passi City
17	17.00 - 17.15	139	Lauro E. Estecomen, Manuel S. Libutaque, Lucia P. Libutaque	INDUSTRIAL TECHNOLOGY STUDENTS COMPETENCY LEVEL UNDER THE LADDERIZED EDUCATION PROGRAM (LEP)
18	17.15 - 17.30	140	Leomar B. de los Santos, Ph. D.	Programmed Practice Sheet (PPS) and Technology-enhanced Drills: Inputs to Instructional Material Development in Badminton
19	17.30 - 17.45	147	Leomar B. de los Santos, Ph. D.	Rhythmic Drills in Students' Dance Steps Performance
20	17.45 - 18.00	176	Marivic A. Somejo, PhD	Readiness of Grade 7 English Teachers
21	18.00 - 18.15	177	Merlinda Buenviaje, Noel S. Quidato, Eric de la Vega, Virgie Rodrigues	Level of Effectiveness of Instruction and Activities of Faculty with Managerial Functions

Room		ROOM 6		
Moderator		Niken Wahyu Utami and R. Hafid Hardyanto		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	013	Adhi Prakosa, Ahsan Sumantika	Entrepreneurial Orientation on Small Medium Enterprises
2	13.15 - 13.30	022	Tarto & Esti Setiawati	Model of Character Education Based on Local Wisdom in The Framework of The 2013 Curriculum in SMA Negeri Bantul Regency
3	13.30 - 13.45	023	Taufik Muhtarom, Danuri	Urgency of Interactive Animated Learning Media Development For Facilitating Literath Skills For The Students of Primary School
4	13.45 - 14.00	032	Marti Widya Sari, Ahmad Bahrum	IoT Technology based for Context-Aware Smart Farm Design in Agrosshop
5	14.00 - 14.15	101	Hermawan Wahyu Setiadi, Rina Dyah Rahmawati	Interactive Learning Media Development "Directed Steps" To Facilitate Ability Of Understanding Concept Bilbul Study Math SD
6	14.15 - 14.30	107	Meilany Nonsi Tentua	Application Data Mining for Transaction Analysis In Mulia Store Using Apriori Algorithm
7	14.30 - 14.45	114	Dewi Oktavianti & Yudhiakto Pramudya	Angular Velocity and Acceleration Using Logger Pro magnetic Sensor
8	14.45 - 15.00	116	Setia Wardani, Hasti Hasanati M, Nafisah Endahati	Community Service of Business Group at Sendangsari Village, Pajangan, Bantul District, Yogyakarta Province
9	15.00 - 15.15	117	Suhartini	The Acquisition of Japanese Numeral Quantifiers Through Song
10	15.15 - 15.30	121	Vera Dewi Susanti, Fatriya Adamura, Restu Lusiana & Tri Andari	Development Of Learning Devices: Brain Based Learning And Mathematic Critical Thinking
11	15.30 - 15.45	122	Aditya Wahana	The Using of Instagram as A Efective Promotion Media For Small and Medium Business
12	15.45 - 16.00	141	Lowe Ana Marie L. Trance, Naci John C. Trance	Characterizing the Environmental Knowledge and Attitude of 8 <sup>th</sup> Grade Students
13	16.00 - 16.15	142	Manuel O. Malonisio	Students Technological Skills and Performance in Advanced Statistics: Inputs to Blended Learning Package
14	16.15 - 16.30	143	<i>Novelita J. Belmes, Ph.D.TM</i>	BATUAN (Garcinia binucao) FRUIT PRESERVATION
15	16.30 - 16.45	144	RHYS KELSEY ZABDIEL J. PAYOT	YOUTH ACUMEN AND PREFERENCE IN GREEN MARKETING
16	16.45 - 17.00	145	<i>Richard S. Brun, PhD</i>	METACOGNITIVE SKILL AND ACHIEVEMENT IN PROBLEM SOLVING HEURISTICS IN MATHEMATICS

17	17.00 - 17.15	148	Naci John C. Trance, Lowe Ana Marie L	Embracing the K-12 Curriculum: Accounts of Philippine Teachers and Students
18	17.15 - 17.30	162	Iis Lathifah N. & Arum Setiowati	URGENSI IDENTITAS DIRI BAGI MAHASISWA
19	17.30 - 17.45	163	Yulia Palupi	CHARACTER LEARNING IN CHILDREN: PATTERN OF INTRODUCTION OUTSTANDING IN BUILDING CHILDREN'S PERSONAL PROCESS
20	17.45 - 18.00	178	Proserpina Abam	THE EFFECT OF COOPERATIVE- INFERENTIAL METHOD OF TEACHING ORGANISM BIOLOGY
21	18.00 - 18.15	179	Nelson H. Tejara, Concepcion L. Khan <sup>2</sup>	Near Real-time Watershed Streamflow Forecasting Using the Soil and Water Assessment Tool



Room		ROOM 7		
Moderator		Setyo Eko Atmojo and Aditya Wahana		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	018	Budiharti, Rina Dyah Rahmawati	Cooperative Learning Model Based on Rithmical Movement Method to Embed the Operation Concept of Whole Number
2	13.15 - 13.30	028	Sukadari, Buchory Muh. Sukemi, Sunarti	Character Education Based on Social Sense Local Culture For School Basic School
3	13.30 - 13.45	082	Ma. Theresa G.; Palmares, Ed. D.	Diglossic Approach In Teaching Elementary Science: An Innovative Strategy
4	13.45 - 14.00	097	Bahtiyar Heru Susanto, Ferawati Listianingsih, Faiz Noormiyanto	The Importance Of Physical Education Learning Model For Patriotism Character Building In Primary School Students
5	14.00 - 14.15	100	Muncar Tyas Palupi, Nafisah Endahati	Compliance And Violations Of Decision Principles Of Interlocution In Social Media
6	14.15 - 14.30	102	Siti Maisaroh, Slamet PH, Samsul Hadi	School Budgeting Plan Based On Determinant Budget Factors In State Primary School Of Yogyakarta Special Region
7	14.30 - 14.45	105	Isnaini Nur Anisah, Laela Sagita, Titis Sunanti	Effectiveness Problem Based Learning in Probability
8	14.45 - 15.00	130	Acela G. Recentes	The Effect of Using Window Card Technique in Improving the Performance of Grade 8 Students
9	15.00 - 15.15	149	Christy M. Desades	Preparedness, Response, and Mitigation in Disaster Prone Areas: Basis for the Development of Community Based Learning Materials
10	15.15 - 15.30	150	Ma. Sheena Dominique G. Timbad	Teachers' Awareness And Students' Perspective Towards Technology-Enhanced Learning Tools In Science
11	15.30 - 15.45	151	Mary Josephine C. Bautista	Ecological Justice from the Perspectives of Moulders of Society
12	15.45 - 16.00	152	Nancy C. Donayre	Technological Pedagogical Content Knowledge of Mathematics Teachers: Basis for the Development of Grade 10 Geometry Module
13	16.00 - 16.15	153	Padrul Jana & Christina Eva Nuryani	Indonesian Stock Market Capitalization Model on Syariah Share Pricing in Syariah Indonesian Index
14	16.15 - 16.30	154	Enik Nurcoholidah	A History of Wellness Counseling
15	16.30 - 16.45	155	Abdul Aziz Saefudin, Koryna & Korinta	Development of Mathematics Module Based on M-APOS Learning Model to Improve Students' Mathematical Problem Solving Ability

16	16.45 - 17.00	156	Mahilda Dea Komalasari, Bayu Pamungkas	Interactive Multimedia Based on Multisensory as A Study of Inclusive Education for Student With Learning Difficulties
17	17.00 - 17.15	157	Saptaningsih Sumarmi	THE EFFECT OF CHARACTERISTICS OF ENTREPRENEUR, SOCIAL SUPPORT, PRODUCT INNOVATIONS ON BUSINESS TRADE DEVELOPMENT IN DIY GIWANGAN MARKET
18	17.15 - 17.30	158	Theofilus Bayu Dwinugroho, Dhananjaya Yama Hudha Kumarajati, Kurniawanti, Yaning Tri Hapsari	Design and Implementation of CNC (Computer Numerical Control) Based Automatic Stamp Batik Machine Program with Automatic Gripper Using Mach 3
19	17.30 - 17.45	159	Dwi Ermayanti Susilo, Rachyu purbowati & Yuniep Mujati Suaidah	An analysis of Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements in Jombang
20	17.45 - 18.00	180	Rheo Tuyogon	Action Research on the Effectiveness of Differentiated Instruction in Teaching 180Science for Grade Five Classes
21	18.00 - 18.15	181	Seema Shaikh	INCREASING THE HAPPINESS QUOTIENT THROUGH PEACE EDUCATION

Room		ROOM 8		
Moderator		Padrul Jana and Arip Febrianto		
NO	Time	Presenter		
		Paper ID	AUTHOR	TITLE
1	13.00 - 13.15	003	Tri Siwi Nugrahani, Herman Budi Susetyo, dan Muhammad Iqbal Birsyada	Women Empowering To Increase Productivity To Diminish The Destitute
2	13.15 - 13.30	005	Ningrum Pramudiati, Dekeng Setyo Budiarto	Does Technology Improve SMEs Business Success? An Empirical Research on Indonesian SMEs
3	13.30 - 13.45	006	Ahmad Agung Yuwono Putro, Suyanto, Yoyon Suryono	New Tradition Of Pesantren In Character Education
4	13.45 - 14.00	007	Dhiniaty Gularso, Sugito, Zamroni	What is the Relationship Between Ki Ageng Suryomentaram With Ki Hadjar Dewantara?
5	14.00 - 14.15	008	Setyo Eko Atmojo, Wahyu Kurniawati, taufik Muhtarom	Science Learning Integrated Ethnoscience to Increase Scientific Literacy and Scientific Character
6	14.15 - 14.30	014	Dwi Ermayanti Susilo, Erminati Pancaningrum, Yuniep Mujati Suaidah, Nurali, Rachyu Purbowati	Effect of Service Based Online Passion and Employee Performance to Employee
7	14.30 - 14.45	016	Palupi Sri Wijayanti	The Development of Automatic Essay Scoring to Measure the Mathematics Literacy Skill
8	14.45 - 15.00	017	R. Hafid Hardyanto, Prahenusa Wahyu Ciptadi	Internet of Things Technology Implementation for Hydroponic Planting Culture
9	15.00 - 15.15	030	Indah Kurniawati, Siti Resmi, Dian Retnaningdyah	Intellectual Property Rights and E Commerce as A Strategy to Strengthen the Competitiveness of SMEs
10	15.15 - 15.30	035	Sherzod Yunusovich Salimov	Development of Pension System of Uzbekistan Through The Experience of The Countries of The European Union.
11	15.30 - 15.45	044	Fernan P. Tupas, Ph. D.	The Life Experiences of Science and Mathematics Teachers – Mentors in Formulating Action Research to Enhance Learners’
12	15.45 - 16.00	045	Maria Cecilia D. Galupar	Actual and Virtual Simulations: Effect on High School Students’ Proficiency in Electronics
13	16.00 - 16.15	070	Beredo, Aubrey Acheron	Nutritional Status And Its Impact On Academic Performance Of Selected Grade 8 Students
14	16.15 - 16.30	071	Carmela M. Velasco	Enteropathogenic Bacteria on Processed and Prepared Foods In Naguilian Public Secondary Schools

15	16.30 - 16.45	083	Juhayna P. Salem; Manuel B. Barquilla	Problem-Based Lesson on Gas Laws Utilizing PhET Simulations: Its Effect on Meranao students' Conceptual Understanding, Critical thinking Skills and Attitudes
16	16.45 - 17.00	099	Faiz Noormiyanto, Shinta Purwaningrum	Peningkatan Sikap Asertif Melalui Teknik <i>Assertive Training</i> Pada Siswa Disabilitas Rungu
17	17.00 - 17.15	123	Bayu Rima Aditya & A Permadi	Assessing student acceptance of virtual classroom in higher education using the UTAUT
18	17.15 - 17.30	129	Lia Dian Ayuningrum, Mardiyono, MNS, Imam Djumaludin	Effectiveness Of H-Hope Plus Kinesthetic With Virgin Coconut Oil (VCO) On Body Weight In Premature Infants
19	17.30 - 17.45	131	Anrem J. Balontong1	Precision Livestock Farming
20	17.45 - 18.00	182	William Ladia	THE MIGHTY ELECTRIC FAN

# PAPER ABSTRACTS

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001

## Mobile Web Based Information System for thesis's Administration in University PGRI Yogyakarta

Meilany Nonsi Tentua<sup>1</sup>, M. Fairuzabadi<sup>2</sup>, Saptaningsih Sumarmi<sup>3</sup>  
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**Abstract.** This research aims to develop an Information System thesis's administration that efficient and effective supported by computerized administration system or on-line system. The subject of this research is Universitas PGRI Yogyakarta which have 13 study programs.

Mobile web can use in the thesis's administration system. It can facilitate the management of required letters and essay recap. This system can also browse the titles of the thesis that has been created so as to reduce duplicate titles of the thesis.

This study concludes that the use of thesis administrative systems can facilitate and accelerate the management of the required letters. It also can sorting titles of the essay that has been taken so as to avoid duplication. Based on black box testing, it is found that the whole function has been run well, the functions tested include: (1) User Verification (2) Data Management (3) Information and reporting. 3) Based on the alpha test it can be seen that the system developed in usability is considered good, the assessment aspect includes: ease of use, ease of navigation, access speed, completeness of features and attractive appearance.

003

## Empowering Women Groups With Technology Cultivation and Processing Medicine and Family Plants as Improvement of Productivity to Reduce Poverty

Tri Siwi Nugrahani<sup>1</sup>, Herman Budi Susetyo<sup>2</sup>, Muhammad Iqbal Birsyada<sup>3</sup>  
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**Abstract.** Poverty is always present in every region, including in the Salakan Trihanggo Sleman hamlet. One of the causes of poverty is because of the lack of natural and human resources that are not optimized, such as the number of yards that are not used and the number of women who are not productive. Though these resources are actually potential to be empowered to reduce poverty. Therefore, an effort is needed to empower the potential of the land with the cultivation technology of medicinal plants and families such as ginger, kencur, and turmeric and the processing of these plants into instant drinks that can be sold to increase family income.

This study used 15 female respondents from technology and crop cultivation technicians and family trainers: ginger, kencur, and turmeric in Salakan hamlet. Data collection with observation and in-depth interviews. Data analysis with quantitative and qualitative descriptive.

The results showed 80% of respondents said the product can be sold in the market so that they can increase income (73.33%) and ultimately reduce poverty (80%). This study proves that

the empowerment of women through the technology of medicinal plants cultivation and family can reduce poverty

**Keywords:** poverty, women empowerment, and productivity

004

## Batik Nusantara Pattern in Design of Mathematical Learning Model for Elementary School

R Y Purwoko<sup>1</sup>, E P Astuti<sup>1</sup> and M S Arti<sup>1</sup>

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**Abstract.** The focus of education is not only on skill development but also on character building. The purpose of this study is to produce a product of mathematical learning model that combines the mathematics and cultural values of batik nusantara. The development model used in this research is ADDIE (Analysis, Design, Development, Implementation, and Evaluation). Development stage generates mathematics learning model using Batik Nusantara setting with the main product such as learning model book, student book, teacher book, syllabus, learning implementation plan, and student worksheet. In the final product, cultural values in the form of character building to students by learning process produces a very positive student response with a score of 86.6%. In addition, by expert assessment, test and non-test data collecting, and limited trials show that learning model is valid with practicality score 3.90 and effectiveness score 3.93. The scores indicate that the student's response to learning model is positive and better maths learning outcomes. Base on the result, this learning model is said to be feasible to use.

005

## Does Technology Improve SMEs Business Success? an Empirical Research from Indonesian SMEs

Ningrum Pramudiati, Rani Eka Diansari, Dekeng Setyo Budiarto<sup>1</sup>

Universitas PGRI Yogyakarta

**Abstract. Objectives:** This study aims to examine the effect of technology usage and financial resources on SMEs business success. Besides, it studies the relationship between SMEs business success and SMEs ownership.

**Design/ Methodology:** This study uses primary data in the form of questionnaires with purposive sampling method. The questionnaires are given to 120 SMEs owners who responsible for the success of their companies.

**Result:** The result proves that technology usage and financial resources have a significant impact on SMEs business success. Besides, there is a significant difference between technology usage and success of business based on SMEs ownership.

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**Implication:** This study is expected to provide benefits for the SMEs owners in planning the need for technology to raise business success.

**Originality:** This study explains the relation between technology usage, SMEs business success and SMEs ownership that has never been performed before.

**Keywords:** technology usage, financial resources, business success, SMEs ownership

006

## New Tradition of Pesantren in Character Education

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**Abstract.** This research has revealed and analyzed the character education at Baiquniyyah Elementary School, which conducted elementary school education based on pondok pesantren (Islamic Boarding School). The curriculum applied at the school is a blend of the national curriculum, madrasah curriculum, and the pesantren curriculum. The National Curriculum requires the implementation of a formal school system, i.e. formal education at the elementary school level. The madrasah curriculum requires that schools also organize religious education according to the regulations made by the Indonesian Ministry of Religious Affairs, while the pesantren curriculum requires the implementation of education by a cottage or boarding system with material of Arabic books from preceding Moslem scholars or commonly referred to as Kitab Kuning (yellow book). Child psychologists have explained that in childhood the dominant education should be done by the parents because at that time the child is in the phase of emotional relationships with the parents and the environment where he lived, something different from the theory of child psychology done by Elementary School Baiquniyyah who is the pioneer of schools that implements pesantren boarding system at the elementary school level in Yogyakarta, Indonesia.

The research was conducted with qualitative paradigm with case study approaching. Data collection was done by direct participation technique, the researcher went directly for some time, mingled with kyai, teacher, cleric, and student to observe, interview, and conduct documentation study to get accurate data about the character education implementation in the school. The analysis used is a qualitative data analysis model by Miles and Huberman which include data reduction, data presentation, and drawing a conclusion.

The results of the case studies at the Baiquniyyah Elementary School show that the character formation or morality of students is done through the integration of formal and non-formal education rooted in religious values derived from the Al-Qur'an, Al-Hadith, cultural environment, and Arabic written books of the preceding Moslem scholars or commonly referred to as the Kitab Kuning (yellow book). The education that is implemented with the model of pesantren has implications on intensive learning, conditioned environment, and effective supervision, as well as the direct exemplary from kyai and teachers. Unique learning that is not found in formal school is the learning of Arabic or Kitab Kuning (Arabic Book) as the characteristic of learning of Pondok Pesantren as a compulsory activity that directly formed the habit, culture, and morals to live simple, discipline, selfishness, tolerance, belonging to each other, and working hard. That are the knowledge, attitudes, and behaviors wanted to be implanted to the students of Baiquniyyah to form the intelligent, skilled, and morals students so that realized the golden generation of the nation.

**Keywords :** Management based on Pesantren, Social Character, *Kitab Kuning* (Arabic Book)

007

## Hat Kind of Relationship is Between Ki Ageng Suryomentaram and Ki Hadjar Dewantara? : Two Figures of Indonesian Education

Dhiniaty Gularso<sup>1</sup>, Sugito<sup>2</sup>, Zamroni<sup>3</sup>

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**Abstract.** This research aims at revealing the relationship between Ki Ageng Suryomentaran (KAS) with Ki Hadjar Dewantara (KHD). This is a library research in which the data were gained through documenting the books. The triangulation of the book resources was used as the technique of data analysis. The result of the research indicates that (1) KAS and KHD lived in the same era to prepare the independence day of Indonesia, (2) both of them were in the same society called as Kliwonan, in which KAS was the leader and KHD was the secretary, (3) both of them fully participated in education by sharing roles. KAS took care of the adults through *Kawruh Jiwa* consisting of *Kawruh Pamomong*, and KHD took care of children through *Sistem Among* in the Taman Siswa School. The relationship, concept, thought, history and spirit of struggle of those people are interesting to be studied comprehensively to fulfill each others to become theory, concept and practice in education which come from Indonesia that is suitable with culture and Indonesian characters.

**Keywords:** *Ki Ageng Suryomentaram, Ki Hadjar Dewantara, the relationship between them*

008

## Science Learning Integrated Ethnoscience to Increase Scientific Literacy and Scientific Character

Setyo Eko Atmojo<sup>1</sup>, Wahyu Kurniawati<sup>2</sup>, Taufik Muhtarom<sup>3</sup>

Universitas PGRI Yogyakarta, Indonesia, National Dong Hwa University, Taiwan

**Abstract.** This study aims to improve the scientific literacy and scientific character of students of prospective primary school teachers through science learning integrated ethno science science. This research is an experimental study for students in class A1 and A2 of the PGSD UPY study program. Class A1 is an experimental class that implements science learning integrated ethno science and class A2 as a control that implements conventional learning. This type of research data consists of scientific literacy data and student scientific characters. Scientific literacy data was collected using tests and analyzed using N-gain, while scientific character data were collected using observation sheets and analyzed by descriptive percentages. The results of the study show that science learning integrated ethno science can improve students' scientific literacy with a gain score of 0.81 which is included in the high category. The average score of students' scientific character in science learning integrated ethno science is in the high category, where the average score of scientific characters in each aspect at each meeting is > 70%.

009

## Implementation of Indonesian Language Learning Based on Information and Communication Technology in Improving Senior High School Students' Achievement in Surakarta

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**Abstract.** The study focuses on Indonesian language learning based ICT to completely improve senior high school students' achievement. ICT has an important role in Indonesian language learning method development in relation to its purpose in improving students' achievement, especially at senior high school level. This development expectedly can produce an appropriate model for Indonesian language learning in senior high school. Besides, Indonesian language learning based ICT expectedly will change students' behavior and mindset positively, like competitive, tolerant, critical and creative. Consequently, a proper information technology usage is a skill required in Indonesian language skill development in this time.

**Keywords:** development, Indonesian language, senior high school, learning based ICT

010

## Multimedia Use For Beginner Level of Teaching Languages For Deaf Children: Study in Special Schools in Surakarta

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**Abstract.** Education for children with special needs, in Indonesia language known as *Anak Berkebutuhan Khusus* or ABK, at an early age plays a very important role in triggering their abilities to communicate by using sign language. This paper discusses the results of research on the development of sign language learning media for ABK with age range 6-9 years. The stage of designing learning media includes the SDLC method (System Development Life Cycle). The result of the design is a Multimedia Application for Introduction to Sign Language for Deaf Children age 8-12 years in the form of CD-ROMs. The first is the CD-ROM for PC / computer which contains Indonesian language learning materials, examples of simple sentences, practice questions and puzzles, and each material contains a sign-language video, the second is in the form of VCD containing Indonesian language learning material and in each material contains sign language video.

**Keywords:** Sign Language, Multimedia, Introduction

011

## Facebook as A Learning Media in TISOL (Teaching Indonesian to Speakers of Other Languages) Learning to Support The Independency of Foreign Students in Indonesia

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**Abstract.** TISOL process is not merely conducted face-to-face, but also by using media, both printed media and non-printed, computer/ internet, radio and television broadcast. By using this method the foreign students can independently adjust the suitability of time and place in studying the material. Learning and teaching process as a form of interaction between tutors and tutorial participants (foreign students) as well as between participants related to teaching and learning activities, forms a social network using a social media as a means of interaction to enable interaction in many directions (active participation of members) and flexible. One of the most popular social media in the world is Facebook. Facebook features as a social media can be utilized to support the implementation of teaching and learning process, especially online tutorials, among other facilities of various documents / modules with interactive discussions among participants arranged chronologically per topic. The purpose of this paper is to review the features of Facebook and simulate learning / Tutorial Online by using Facebook so features can be used with existing advantages and disadvantages as well as suggestions how to use Facebook to improve the quality of Online Tutorials in TISOL learning.

**Keywords:** learning activity, online tutorial, social media, Facebook, TISOL

012

## Indonesian Language Teachers' Attitudes toward ICT Utilization in Learning for Elementary School in Surakarta

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**Abstract.** The study deals with Indonesian language teachers' attitude toward ICT utilization in learning for elementary school in Surakarta. It also investigates relationship of attitudes and teachers' knowledge and relationship of attitudes and teachers' skill toward ICT utilization in learning. Moreover, it also attempts to find out teachers' attitudes toward ICT utilization in accordance to school categories and ICT training. There were 150 Indonesian language teachers from 15 elementary schools in Surakarta, including eight state schools and seven private schools. The data obtained were then analyzed by SPSS version 12.0 program. The result shows that Indonesian language teachers' attitudes toward ICT utilization in learning are positive. However,

teachers' knowledge and skills still in the beginner level. Besides, it also shows that there are no significant differences of teachers' attitudes toward ICT utilization in learning related to school categories. Nevertheless, there are a significant difference between Indonesian language teachers' who had attended ICT training and who had never been.

**Keywords:** Attitudes, teachers, ICT utilization, learning, elementary school, Surakarta

013

## Entrepreneurial Orientation on Small Medium Enterprises

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**Abstract.** Nowadays, small medium enterprises face a variety of challenges. The challenge related to internal conditions that are associated with high or low entrepreneurial orientation. An entrepreneurial orientation is the ability to identify business opportunities. This study aims to examine to examine wheater there are differences in entrepreneurship orientation by gender and length of doing business especially on small and medium enterprises (SMEs) in tourist villages located in Special Region of Yogyakarta. Data analysis techniques used in this study use One-Way ANOVA. The results showed that entrepreneurial orientation proved to have significant differences mainly in the length of doing business but not in gender difference.

014

## Instagram as Media Development of Religious Character Education Values among Teenagers

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**Abstract.** Today, *Instagram* is a popular social media among teenagers. This study aimed to explain the role of *Instagram* as a media to develop the religious character education values among teenagers. The research method was descriptive qualitative with content analysis approach. The results showed that *Instagram* as the most social media users in Indonesia, especially the teenagers so as to give a strong influence on the development of their character. The *Instagram* content is unique and close to its users, making *Instagram* easy to understand. The contents that provide religious character values give understanding and motivation for adolescents become a better person.

**Keywords:** Instagram, character development, character education values, religious

016

## The Development of Automatic Essay Scoring to Measure The Mathematics Literacy Skill

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**Abstract.** Teaching and learning process in class need an assessment tool to measure students' level of understanding. Type of understanding in mathematics class nowadays such as mathematics literacy skill. The assessment that can be used to measure this skill such are multiple choice questions, short field questions, or essay questions. Some reveal studies show that essay questions is better than other types of evaluation to measure the skill of each student. Automatic essay scoring is one of the assessment as correcting students' answer. The development of automatic essay scoring to measure of mathematics literacy skills' student is the aim of this study. There are many choices can be used to develop an automatic essay scoring. One of these is cosine similarity method. Cosine similarity method is a method to compare the similarity of two documents, in this study used the students' answer document and the key answer of teacher (lecture). The comparison based on the frequency of each word in sentences of these documents. To measure the frequency is used Tf equation or Term frequency. Term frequency is a factor that determines the weight of words based on the number of word frequencies in a document. Based on this study show that the development of automatic essay scoring can be used as assessment tool to measure mathematics literacy skill. The result of the test show the suitable comparison of automatic essay scoring and manual scoring is 87%.

017

## Internet of Things Technology Implementation for Hydroponic Planting Culture

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**Abstract.** This study aims to develop the application of information technology in the field of agriculture, especially the method of farming in a hydroponic way. Hydroponic cultivation method is cultivation that can be done with the utilization of vacant land / yard of the house. With a hydroponic cultivation system a small home garden yard can be used as a farming land. The research method used in this research is Microsoft Solution Framework (MSF) with waterfall system development method and Object Oriented Development (OOD) method for its approach method. Stages in this study include problem identification, preliminary planning, design and design, piloting and implementation. The result of this research is a prototype product of an IoT system applied in a hydroponic cultivation system. Contributions to Knowledge may extend the repertoire of research in the field of development, particularly in the development of information technology applied in agriculture, especially in cultivation using hydroponics; The results can be used as references in the development of the next IoT system.

018

## Cooperative Learning Model Based on Rithmical Movement Method to Embed The Operation Concept of Whole Number

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**Abstract.** The purpose of this research is to develop cooperative learning model based on rithmical movement method to help embed the operation concept of whole number, then the development of this learning model can be utilized to give variation of learning model and facilitate student's understanding so as to increase student's motivation and achievement. The method used in this research is case study and Quasi-Experiment. Case studies are used in the process of developing models and learning devices. The use of this case study is based on the thought of obtaining the necessary data in depth. While Quasi-Experiments are used to implement learning models in order to know the effectiveness. The research subjects are fourth grade students of SDN Tamansari II Yogyakarta. The results of this study indicate that the cooperative learning model based on rithmical movement method is feasible with Good criteria and get a positive response from students at 81.09%. In addition, this learning model also effectively to embed the operation concept of whole number.

**Keywords:** Cooperative Learning Model, Rithmical Movement, Mathematics Learning

019

## An analysis of Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements in Jombang

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**Abstract.** This study aims is to know the implementation of Regional Management Information System (SIMDA) in improving the Quality of Financial Statements at the Office PPKAD Jombang regency. This research includes descriptive qualitative research that is the technique of analysis in the form of describe or reveal the characteristics of variables that become the focus of the researcher is to disclose matters relating in Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements at the Office of PPKAD Jombang regency. The results of the research indicate that the quality of information generated from the implementation of SIMDA Finance, among others 1) is timely, 2) the accuracy of data generated from data processing on the system reliable and 3) relevant, the system works automatically by classifying transactions according to their respective types. Each and every parts of the system are interconnected with each other. The suggestions in this study For the Office of Revenue, Financial Management and Regional Assets (DPPKAD) Jombang regency need to pay attention to the financial accounting system used, both in understanding in its use

or in knowing the standard accounting pulse of government so that in processing financial data can produce quality financial reports.

**Keywords:** The Regional Financial Management Information System (SIMDA) and Quality of Financial Statement

020

## **Working Memory on Mathematical Problem Solving Activity: Case Study in Low Ability Students**

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**Abstract.** Working memory has a vital role in mathematical problem-solving activities. The purpose of this investigation is to explore the working memory in mathematical problem-solving activity in students with low ability. The central question was: How does low ability students at Universitas PGRI Yogyakarta on mathematical problem-solving activity? Research questions were as follows: 1) How does long-term memory influence student's ability to problem-solving activity? 2) How does working memory influence on student's mathematical problem-solving activity? Data was gathered from 3 participants through interviews, a follow up a written interview, and a reflective journal study. Data indicated that participants experienced have not mastered the prior skills needed to solve the differential problem, which led to delay in solving the problem. Findings also indicated that long-term memory and working memory influence speed of the problem-solving.

022

## **Model of Character Education Based on Local Wisdom in The Framework of The 2013 Curriculum in Sma Negeri District Bantul**

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**Abstract.** This study aimed to develop a character education model in SMA Negeri based on local wisdom in the framework of curriculum 2013. The product is a character education development model in SMA that can be used as one model of character education development in Bantul District Senior High School.

This development research uses an adapted R & D approach from Borg & Gall design model. The development step consists of three stages namely the development phase of the character model education design, model testing, and dissemination. In the model design development stage, modeling activities are carried out through the analysis activities with field



surveys and empirical studies, model planning, internal validation, and external. In the model pilot activity, continuous pilot phase 1 and phase 2 trials are conducted. In the dissemination stage of the model, publications of research results are conducted through seminars and / or educational research journals. While the subjects in this study are principals, teachers, and students. Data were collected by interview method, observation, questionnaire, and documentation study, while data analysis method used quantitative and qualitative descriptive techniques.

The results of experiments 1 and 2 show that the valid research instrument is evidenced by a factor load of all  $e > 0.300$  and reliabel proved by reliability coefficient  $e > 0.700$ . The implementation of character education in Bantul State Senior High School was developed through the internalization of the values of the characters in the learning process based on the value of local wisdom, the school literacy movement, the Olympic activities, the extra curricular activities, and the religious activities.

**Keywords:** Character Education, Local Wisdom, and State Senior High School.

023

## Urgency of Interactive Animated Learning Media Development for Facilitating Literath Skills for The Student of Primary School

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**Abstract.** The purpose of this article is to remind the importance of developing an interactive animated learning medium to facilitate literacy skills in elementary school students. One of the problems faced by education in Indonesia is the low level of literacy ability of students in Indonesia. Data states that the results of the research Program for International Student Assessment (PISA) mentioned, the literacy culture of Indonesian society in 2012 the second worst of 65 countries studied in the world. Education in primary school as the first foundation in improving education world, it is necessary to take a role by doing an interactive animative learning media development which is adjusted to the level of psychological development of elementary school children who are still in concrete operational stage in order to build their literacy skills early on. It is hoped that such efforts will further increase the awakening of early literacy culture for elementary school children and also can erode the negative influence of the development of electronic media / gadgets. Culture of early literacy in elementary school children will be able to empower and improve the quality of individuals, families, communities and even the nation itself. Based on the above explanation shows that the world of education Indonesia needs a real and sustainable solution to improve literacy skills of the nation's children. There are many advantages of the development of interactive multimedia in helping to facilitate the students' literacy skills such as the learning process becomes more interesting for students, more interactive (can bridge the concept of complete and independent learning), reduce / shorten the teaching time, improve the quality of learning, and form the learning flexible (learning can be done anytime and anywhere).

024

## Analysis of Mathematical Problem Solving Ability in The Implementation of Apos Modified Learning Model (M-apos)

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**Abstract.** The purpose of this research is to analyze and describe student's mathematical problem solving abilities in the implementation of APOS modified learning model (M-APOS). This learning model adopts from APOS theory which apply activity, class discussion and exercise cycle. The type of this research is an explorative descriptive research with the subject is 37 respondents of UPY Mathematic Education Study Program's students who joint the course of Group Theory. The data collection procedure is by observation, test, and interview. Respondents were given a written test of three questions related to problem solving abilities. From the results of the analysis it was found that the indicator of the ability to understand the problem, plan for completion, and solve the problem according to plan, the highest percentage was in high ability students with percentages of 76.12%, 60.05%, and 44.68%. This means that the ability of students to understand problems, plan for completion, and implement the plan in the implementation of the M-APOS learning model is in good category. While the indicator of re-examine for all steps reviews, the highest percentage is the moderate ability category with percentage is 39.28%. The implementation of APOS learning in this study is in very good category.

**Keywords:** Problem Solving Abilities, APOS modified learning model (M-APOS), Group Theory

025

## An Analysis of Student Satisfaction Level on Service and Facilities Quality Using Weighted Least Squares: A Study on PGRI Yogyakarta University

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**Abstract.** The present article aims to study the level of students satisfaction of PGRI Yogyakarta University towards service and facilities quality. To try and understand the factors which influence student satisfaction as well as consequences of it, this study test a weighted least squares model of student satisfaction. This study investigate determinant and dominant factors of the students satisfaction and its characteristics. The data were collected through a questionnaire administered to 160 students of PGRI Yogyakarta University to investigate their perceptions of the universities services. A questionnaire containing 30 questions has been used for data collection. The data were analyzed using the descriptive technique and the weighted least squares analysis. The measurement of the service quality is an important element to provide better, more efficient and more effective services. Spss Software and cronbach alpha index have been used for data analysis and reliability. The reliability factor should be improved first because it is dominant in determining the students' satisfaction. Quality indicators constituting the reliability factor include classroom, library, laboratory, public area, and information system.

The results show that, by percentage, 2 indicator is in the very good category, only 5 indicators are in the good category, 9 indicators are in the fairly good category, and 14 indicators are in the poor category. The results indicate that the universities service quality needs to be improving. The results of the analysis show that five determinant factors of the students' satisfaction include tangibles, reliability, responsiveness, assurance, and empathy. By the priority scale, the reliability factor should be improved first because it is dominant in determining the students' satisfaction.

**Keywords:** students satisfaction, weighted least squares, descriptive technique, reliability

027

## **Development of Mathematics Module on the Material of Flat Side Space Building in DIY Culture-Based.**

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**Abstract.** Research is based on the limited learning resources that can be used by students independently. The purpose of this research is to develop a Mathematics module in Jogja culture-based at junior high school with the material of Flat Side Space Building. To be able to find out the feasibility, effectiveness of the Jogja Culture-based Mathematics module that has been developed, and to determine the level of character of the love of the local culture of students through the implementation of the developed Mathematics module. This research use research and development design. Development carried out by referring to the 4-D model found by Tiagarajan is modified to 3-D including define, design, and develop. The subjects of this study are students of class VIIIB of SMP 2 Pajangan, Bantul Academic Year 2017 / 2018. The instruments used included Module assessment sheets, test instruments, questionnaire sheets, instrument validation sheets. The research data obtained is analyzed by descriptive percentage. The results show that the mathematics module based on DIY culture material Flat Side Space Building had fulfilled the eligibility criteria which included valid, effective, and practical. Valid based on expert judgment that shows the quality of worksheets is very good category with an ideal percentage of 85.7%. These results indicate that the Culture-based Mathematics module developed is suitable for use in the eighth grade mathematics learning in junior high school.

028

## **Character Education Based on Social Sense Local Culture for School Basic School**

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**Abstract:** Implementation of Character Education Based on Social Wisdom of Local Culture For Elementary School Students; aims to know the Implementation of Character Education Based on Local Social Wisdom and Culture for Elementary School Students in Special Region of

Yogyakarta, namely: to form a private society to be a good character human, good citizens, and citizens of noble character, so as elementary students will be formed character traits who are responsible, disciplined, and honest and uphold the local culture in which they are located.

The subjects of this study were students and teachers in 25 elementary schools in Yogyakarta Special Region. The first study was conducted from May to October 2017. The data collection method used interview, observation, and documentation. The data analysis technique used is an integrated model between quantitative and qualitative descriptive approach.

The results of the first year of research are: (1) compiled an instrument to identify the problems of grade and grade moral education in elementary school of research area; (2) data on the number of students in 24 SD of the research area, and identified the character education needs based on local social and cultural wisdom as well as its distribution that needs to get model services; (3) a number of 8 (eight) students of IPS PPs UPY Program involved in this research can complete the draft thesis as evidenced by the approval by the supervising commission; (4) prototype design or some examples of equipment / media development model of character education based on local social and cultural wisdom, (5) composed of module of teaching materials of character education based on local social culture wisdom; (6) written scientific articles contained in national accredited journals, and international journals; (7) written draft textbook on character education based on social wisdom of local culture in elementary school; (8) draft of intellectual property design of noble art costume costume with batik clothing pattern of pecang typical of Kulon Progo.

**Keywords:** Character Education Model; Based on Local Social Wisdom Culture; Elementary students

029

## Potential estrogenic yam bean (*Pachyrhizus erosus*) in blood and reproductive organs of rat female

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**Abstract.** Isoflavones is yam bean compound with a structure similar to estrogen hormone. The aim of the study was to analyze 17  $\beta$  estradiol and their effect on ovarian and vaginal tissue structures of rats. Twenty four females white rats Sprague Dawley 6-7 months, weighing 170-220 g, were used and given the juice of yam bean, synthetic daidzein and control for 36 days. 17  $\beta$  estradiol profiles were analyzed using ELISA, ovarian and vaginal tissue structure were analyzed with HE staining. The results showed that was difference signifikan of 17  $\beta$  estradiol rats administration yam bean juice with synthetic daidzein. Ovarian development and vaginal epithelial proliferations. To conclude, yam bean is a potential alternative for a natural estrogen source is effective and efficient.

**Key words:** 17  $\beta$  estradiol, yam bean, ovarian, vaginal

## Intellectual Property Rights and E Commerce as A Strategy to Strengthen the Competitiveness of SMEs

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**Abstract.** This research aims to analyze the use of e-commerce and intellectual property rights (HKI), especially the protection of the brand for Small Business Enterprises (SMEs) as an effort to strengthen business competitiveness. Most SMEs are weak in the mastery of information and marketing technology and the lack of awareness of HKI protection for the industry.

This research uses experimental design by giving intervention to respondents. Descriptive analysis is performed to reflect the data obtained from the identification process on the profile of some MSMEs in Yogyakarta. Inductive analysis is done by paired sample t test to know the difference of e-commerce insight and ownership before and after experiment (intervention). One Sample Kolmogorof Smirnof is used to test the normality of data to determine types of the different tests.

The results of the research demonstrate that the data is distributed normally. There are significant differences before and after conducting experiment (intervention). The e-commerce variable is indicated by a significance level of 0.003 lower than the alpha of 0.05. While the ownership of HKI such as trademarks is indicated by the level of significance 0.000 out of alpha 0.05. Overall the results of this study indicate that the experimental method not only results in differences in behavior of SMEs but also some SMEs have made marketing techniques with e-commerce and HKI ownership.

The findings demonstrate that there are significant differences before conducting experiment and after, the experiment indicates the significance level of 0.003 is lower than alpha of 0.05 for the ownership of e-commerce. While the ownership of HKI such as trademarks showed significant gains as well, as indicated by the level of significance 0.000 out of alpha 0.05. This shows that the experiments conducted in this study correspond with the purpose of which is to achieve the strengthening of the capabilities of the competitiveness of SMEs through the use of proprietary e-commerce and HKI such as trademarks.

**Keywords:** competitiveness, SMEs, experiment, e-commerce, HKI

## The Factors Affecting of Farmer Participation in Sustainable Private Forest Management at Pajangan Sub-District, Bantul District, Special Regions Yogyakarta, Indonesia

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**Abstract.** Based on Law No: 41/1999, forest areas should be maintained at least 30% in spatial and regional plans (RTRW). Yogyakarta Special Region (DIY) has an area of 318,580

hectares, so it takes a forest area of 95,574 hectares. Based on data of forest ownership in DIY still requires forest area of 38,388 hectares (12.36%). The potential to increase forests is by sustainable private forest development. Private forest management has limitations on the ability of farmers to apply sustainability principles, so it is necessary to increase farmers' participation in private forest management. The purpose of this study is to analyze the effect of community empowerment variables, community institutions, and stakeholder support for farmer participation in sustainable private forest management. The research method used quantitative research with the implementation using survey method. The study area was taken by purposive sampling and sampling of farmers with several stages of cluster sampling with 90 samples from three villages and 3 groups of forest farmers (KTH) per village. Data processing using SEM WarpPLS 3.0 statistics program. Based on data processing from 90 samples and data analysis shows that the participation of farmers greatly influence the success of sustainable forest management. Farmer participation is significantly influenced by community empowerment and stakeholder support, while community institutions have no significant direct effect on farmer participation but indirectly influence through community empowerment. This suggests that farmers with the potential of existing community institutions need to be optimally utilized through education, counseling and enrichment of science and technology to participate in sustainable private forest management.

**Keywords:** Farmers participation, community institutions, stakeholder support, community empowerment, sustainable private forest

032

## IoT Technology based for Context-Aware Smart Farm Design in Agroshop

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**Abstract.** The development of information technology is increasing rapidly in all fields of community life. Today, technology that can be applied in various fields is internet of things (IoT) technology. In IoT technology allows users to control and monitor in realtime. One area for implementing IoT is in agriculture. The application of IoT to agriculture can be used based on user needs, such as the use of sensor technology for irrigation, optimization of agricultural products, pest management, effective use of resources and optimization of production operations.

The method used in this study is to do observation, literature study, data collection, system design, system design testing and analysis of test results. The system design that will be made is used to measure and monitor the watering, temperature and soil moisture at Agroshop UPY.

The results of this research are context-aware smart farm designs on Agroshop UPY based on internet of things technology. This result can be used to develop Agroshop in the future to be more effective and efficient in its management.

033

## The Use of Edmodo-based E-Learning Media in Improved Reading Interest with Whole Language Approach

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**Abstract.** Technological developments provide many alternatives in learning. Edmodo application can be one of the alternative in learning, one of them as a media in an effort to increase reading interest. Teachers' teaching methods that are less appropriate to be a weak factor reading comprehension. To overcome this problem is used Edmodo-based Whole Language approach. This study aims to determine and describe the role of Edmodo in facilitating the learning process and its implementation to improve reading interest with the Whole Language approach. The object of this research is 25 students of SMA Negeri 2 Sragen, Indonesia. Data collection through observation, document analysis, interviews, and questionnaires. The results of this study indicate that the Edmodo-based Whole Language approach has an excellent role in improving students' reading and comprehension, seen with the ability to answer questionnaires based on text and discussion activities. Edmodo also provides student facilities to engage cognitively with places to discuss, do quizzes, and express ideas based on readings they have read. Students also responded to Edmodo's use of reading learning. They consider Edmodo an interesting medium with features of discussion, quizzes, and can share reading material.

**Keywords:** technology, e-learning, Edmodo, reading interest, whole language

034

## Technology in Traditional Material: Savi in *Tembang Dolanan*

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**Abstract:** The purpose of this research is to develop teaching material of SAVI approach on Play song "*tembang dolanan*" material for elementary school students in Madiun residency. This development research refers to the 4-D method. The research started from February 2017 until November 2017. The research data was validation result. The research instrument used is validation sheet, questionnaire, and students singing (*nembang*) test. The Data collection techniques were validation and observation. Data were analyzed descriptively qualitative. The results showed that: (1) the process of developing teaching materials SAVI approach on the material *tembang dolanan* for fourth graders of elementary school in the Residency Madiun consists of three stages. The stage is the stage of definition, stage of design stage, and stage of development; (2) student textbooks SAVI approach on materials "*tembang dolanan*" for fourth graders of elementary school in Madiun Residency reliability level is very high, that is 89.7%; And (3) based on the calculation, the t count is 7.31, while the t table is 3.56. Because t count > t table then H1 accepted. It is stated that the teaching materials SAVI approach on the material

"*tembang dolanan*" for fourth grade elementary school in Madiun Residency was effectively used.

In learning *tembang dolanan* (songs for playing) there is character education, yet since the teaching system in schools, especially in primary schools is still very minimal, the character education is rarely touched. For that need a strategy that must be done by teacher with the intention of character education can be conveyed well through material *tembang dolanan*. One of the efforts that can be done is with the development of teaching materials SAVI approach on materials *nembang dolanan* fourth grade elementary school in which in the textbook there is also character education in accordance with the approach SAVI. The result of the analysis shows that in the teaching materials in the form of student textbooks SAVI approach on the material of the *dolanan tembang* for grade 4 elementary school there is character education in every step SAVI. In somatic learning, students are invited to discipline, hard work, friendly or communicative, love peace, democratic, and responsibility, on learning auditory students are invited to independent, tolerance, and add curiosity, the visual learning students are invited to always love the land water, reading, and environmental cares, and on students intellectual learning are encouraged to be more religious and creative.

**Keywords:** character, teaching material, SAVI, *tembang dolanan*, elementary school

035

## Development of Pension System of Uzbekistan Through The Experience of The Countries of The European Union

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**Abstract.** Government's policy in financing social sphere is becoming more and more topical. In this regard, managing pension system effectively, conducting research basing on "income distribution through the time" principle in its financing is of particular significance. In this article the possibility of applying the experience of European Union countries in the level of coverage of population by the pension plan and its development in Uzbekistan.

**Keywords:** Pension System, Social Insurance



036

## Robotics Instruction: Effect on Junior High School Students' Technological Literacy and Proficiency in Electronics

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**Abstract.** This quantitative, quasi-experimental research was conducted to determine the effect of robotics instruction on junior high school students' technological literacy and proficiency in Electronics. The subject of this study were the 50 Junior High School Grade 10 SSC students in Pavia NHS. One group was exposed to robotics instruction and the other group was exposed to non-robotics instruction. The choice as to which group will be subject to the given instruction was determined through fish bowl method and match paired according to their average. The data were gathered through the Proficiency Test in Electronics (PTE) and Technological Literacy Questionnaire (TLQ). During the actual intervention, students were asked to write a journal to assess the development and progress of the newly introduced teaching strategy in Electronics. The data were analyzed using descriptive statistics such as X and SD and inferential statistical tools such as t-test for independent sample, Wilcoxon Sign Ranked Test and Spearman Rank correlation coefficient set at alpha 0.05. The SPSS 11.5 software was employed in the tabulation, processing and analysis of the data. Results revealed that there were significant differences in the level of students' proficiency and technological of students after they were exposed to both instructions. There were significant differences in the mean gain scores in the proficiency in Electronics of students who were exposed to Robotics instruction and Non-Robotics instruction, in favor of the experimental group. Furthermore, there was a significant relationship between students' proficiency in Electronics and technological literacy.

037

## Heart-centered Management Training Program for Public Secondary School Principals in The Island of Panay, Philippines

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**Abstract.** This study investigated the relationship among the levels of emotional intelligence, conflict management styles, and transformational leadership skills of 201 public secondary school principals in the Island of Panay. The main purpose of the study was to develop a "Heart-Centered Management Training Program" to improve the performance of school principals through an enhanced use of emotional intelligence, conflict management styles and transformational leadership skills. It determined the significant differences and relationship among these variables when the respondents were classified in terms of their educational attainment, geographical location, Result – Based Performance Management System (RPMS)

rating, professionalism, religion and sexual orientation. Significant differences were observed in their level of emotional intelligence, conflict management styles, and transformational leadership skills when they were grouped according to RPMS rating, professionalism, religion and sexual orientation, respectively. There were significant relationships between emotional intelligence and conflict management style; emotional intelligence and transformational leadership skills; and conflict management styles and transformational leadership skills. These findings were the bases of the "Heart-Centered Management Training Program".

038

## Predictors Associated with the Curricular Performance of Student Athletes

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**Abstract:** This study was conducted to establish the potential association between predictors and curricular performance of student-athletes. To accomplish the reason for the study the descriptive research design was used. One hundred thirty-four athletes from the Province of Pampanga who competed in the Central Luzon Regional Association (CLRAA) in the School Year 2016-2017 served as respondents of the study. Results revealed that the responses of the respondents, they showed strong agreement that anxiety strongly affects their curricular performance. The sports involvement of students-athletes and its perceived effects on their curricular performance. For **physical aspect**, sixty six or 49.25% **agreed** is the poor balance diet, Seven or 5.52% **strongly disagreed** that the injury acquired from sports involvement affected their curricular performance. On the other hand, **social aspect**, Seventy four or 55.22% **agreed** is teachers' discrimination was a factor that affects their curricular performance. While 11 or 8.20% **strongly disagreed** is the discrimination from classmate can effect on their curricular performance. Likewise, in **the emotional aspect**, seventy or 52.23% **disagreed** Failure/defeat in sports involvement may result in loss of Self-reliance. While six or 4.47% **strongly agreed** that defeats led to loss of Courage. Lastly, **mental aspect**, Fifty nine or 44.02% **agreed** that cause of anger often becomes the focus of attention, and then it leads to negative thoughts. While eleven or 8.20% which were describing **strongly agreed** is the worry.

**Keyword:** Predictors, Curricular Performance, Student Athletes

## Use of Video as an Enhancement in Teaching Reproductive System and their Functions

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**Abstract:** This paper aimed to evaluate the effect of using video as an Enhancement in Teaching Reproductive System and their Functions. Video clips, pre-test and posttest are made for the implementation of the study.

Each lesson about reproductive system were shown through video clips. The learners are given achievement test (pretest and posttest). Then, they answered questions after each lesson. The lesson for the day ended with giving of glossary or words used in each lesson. The words in the glossary are used as the words to spell in the next lesson. Then, the spelled words are used in writing sentences.

The findings of the study revealed that using video as an Enhancement in Teaching Reproductive System and their Functions improved their performance from pre-test to post-test. It implied that using video-aided instruction increases their conceptual understanding of the parts and function of reproductive system. It also provided pupils complete pictures of different internal organs in the reproductive system.

Moreover, the use of glossary as words to spell and used them for sentences construction is a good practice given to them to sharpened their conceptual understanding and significantly improved the level of performance.

**Keywords:** Reproductive System, Video clips, glossary, achievement test

## Translated Literatures of Western Visayas: An Evaluation

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**Abstract.** In response to DepED Order No. 74 s. 2009 otherwise known as Mother Tongue-Based Multilingual Education (MTB-MLE), the Filipino Department of the West Visayas State University, Iloilo City, Philippines, took initiative by translating into Filipino the local literatures written in Hiligaynon, Kinaray-a and Akeanon. These translated local literatures were then evaluated in terms of their level of efficiency when rated as a whole and according to different aspects. Three experts in translation served as evaluators for each category using a questionnaire. Mean was employed as statistical tool. Result showed the following data: There was a high level of efficiency in translation, grammar, rhetorical correctness, clarity of the translation, and the use of figurative language. Translations of riddles, *lowa*, *alamat* and folk tales were rated excellent while *dayaw*, *dalit*, and *pasyon* as well as *ambahanon*, *daigon* and ballads were rated very good while *hururaon/ududayon* and other short verses were rated average. It was, therefore, recommended that a Kinaray-a/Hiligaynon- Filipino glossary should be published to be used as reference materials of the teachers and students in basic education since there was a scarcity of the terms to be used in translating indigenous literatures.

## Implementing Hangaway Mobile Game for Teaching Grade 11 Statistics and Probability

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**Abstract.** In the Philippines, the recent implementation of the K to 12 Basic Education Curriculum and the full integration on 2015 under the ASEAN Economic Community (AEC) demands a lot of curriculum innovations. As a result, there is a need for new learning solutions to help students improve their performance and attitude towards mathematics. Also, it was proven by many researchers that digital games can enhance students' learning motivation (Nussbaum, 2007) and their learning performance (Ke & Grabowski, 2007). This quasi-experimental study was conducted to find out the effectiveness of the *Hangaway Game*. This game is a developed localized mobile game which impacts the performance of students in Statistics and Probability. The participants were the SHS students of RGPSNHS in Dingle, Iloilo. In the study, two groups were taught through two teaching strategies. The participants were randomly chosen and the students were match-paired on the basis of their pretest scores in the researcher-made Performance Test in the subject. Thirty-five students from the experimental group were given the intervention after the match pairing. Observation and interviews were conducted to determine the feedbacks of students regarding the usability and effectiveness of the mobile game. Qualitative data analysis was also utilized showing the results of the interview. After the 6-week intervention, the result showed that teaching with the use of Hangaway game enhanced the student's motivation and engagement as well as making higher marks than those taught with the traditional approach. This implies that it helped the students in their mathematical process of learning.

**Keywords:** Mobile game, Digital Game-Based Learning, Mathematics Learning

## Glossary of Selected Hiligaynon Words: Development and Evaluation

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**Abstract.** This study deals with the development of glossary of selected Hiligaynon words and the evaluation of the appropriateness of the glossary developed and its level of acceptability. Descriptive-evaluative was used as a methodology of this study. Researcher made questionnaires were utilized to measure the appropriateness of the developed glossary and the level of acceptability in which were evaluated by experts according to different aspects. The developed glossary contained five hundred sixteen entries which underwent into cross-checking. Moreover, the developed glossary was evaluated highly appropriate by panel of experts and highly acceptable as a whole and according to the evaluation made by: teachers in Literature and Hiligaynon language, teachers of Mother-Tongue, and writers and language practitioners. The development of the glossary showed that Hiligaynon language is very rich and that it represents the authenticity and identity of the culture.

043

## Literatures of Western Visayas: Collection and Categorization

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**Abstract.** This collaborative qualitative study of the Filipino Department, West Visayas State University, Iloilo Philippines, aimed to collect and categorize local/indigenous literatures of Western Visayas (Region VI). This study was based on Oral Tradition Theory of Crotty (2003) and was made possible through interviews with the informants from different provinces in Western Visayas. The researchers utilized compiled Panayanon literatures from the colleges and universities of the region as well as those downloaded from the internet. Guide questions, cassette and mobile phone recorders, digital cameras and tablets were used as instrument. The result showed that Western Visayas has a very rich local/indigenous literature that reflect the culture and traditions of its people. Some of these culture and traditions are still being practiced by the local folks. Literatures collected were categorized according to genre as follows: *bulong*, *hurubaton*, *huding*, and other short verses; folk songs, *daigon* and *dayaw*; passion and praises; and, *lowa*, riddles and short stories. Themes derived from these literatures were: thanksgiving, courtship and marriage, occupation and way of life, social problems, calamities, heroism, environmental consciousness, praises to muses and to the Virgin Mary, passion of Christ, plants and animals, places, foods and many others. Furthermore, people from Western Visayas were very creative, imaginative and intelligent to write and compose these literatures.

044

## The Life Experiences of Science and Mathematics Teachers – Mentors in Formulating Action Research to Enhance Learners' Performance

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This qualitative research used the life experiences of Science and Mathematics teachers and their mentors utilizing observation, interview and focused group discussion (FGD) to formulate action research. Life experience in this study is the depiction and understanding of human experiences, choices, and options and how these interests influenced one's perception of knowledge when engage in action research. One of the common problems in Department of Education (DepEd) is that very few teachers engaged in action research even though many of them have excellent innovations to help below average learners. Action research will help teachers assessed the effectiveness of creative outputs in the performance of learners. The life experience of the informants and mentors showed that some of these Science and Mathematics teachers have started formulating action researches but very few were successful. The reasons for these failures were lack of interest and unambiguous understanding about action research, and the lack of supports from the administration and funding. Many of them attended trainings,

workshops and conferences but all had focused on concepts; no actual implementations on the process to articulate the procedure on doing action research. With the help highly of commented mentor, one elementary Science teacher was able to complete one study and presented in a local science organization. However, none of the Mathematics teachers from all grade levels were not able to do any proposal due to co-curricular activities like, coaches for sports and literary events or advisers for clubs and organizations designated by school heads and supervisors. Hence, the results in local and national achievement tests were below national standards. Thus, teachers with great potentials in doing action research must be recognized and mentored. Also, collaborative work with SUCs faculty or other agencies is also recommended to help basic education teachers to make innovative outputs into functional products to enhance learning among below average learners.

**Keywords:** life experiences, enhance, action research, Science and Mathematics Teachers, mentor

045

## Actual and Virtual Simulations: Effect on High School Students' Proficiency in Electronics

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**Abstract.** This quasi-experimental research was conducted to determine the effect of actual and virtual simulation methods on students' proficiency in Electronics among Grade 10 Special Science Class students at Iloilo National High School. The choice of whether a certain group was subjected to virtual simulation method or actual simulation method was done through the toss coin technique. The data gathering instrument used is a researcher-made Proficiency Test in Electronics. Journal writing after every activity was done to assess the perceptions of students towards actual simulation method and virtual simulation method. The statistical tools used were mean and standard deviation for descriptive statistics and t-test for independent sample, Mann-Whitney U and Wilcoxon Signed Rank Test set at 0.05 alpha level for inferential statistics. The findings showed that before intervention, students in both methods were Developing in their level of proficiency. After the intervention, both groups became Advance proficient. No significant difference existed between the pre-treatment results but a significant difference was noted in the posttest mean scores of students who were exposed to virtual simulation method. However, no significant difference existed in that of students who were exposed to actual simulation method. Results further showed that the performance of students in the virtual simulation method was comparable with that of the actual simulation method. Hence, virtual simulation method can be as effective as the actual simulation method in learning the basic concepts of Electronics.

**Keywords:** actual, virtual, simulation, proficiency, Electronics

046

## Western Visayas Folklore: A Socio-Cultural Analysis

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**Abstract.** This qualitative research seeks to analyze the selected folklores of Western Visayas in the Philippines using socio-cultural approach. Various topics and themes were drawn out and the following categories were identified: pagan rituals and civilization; successes and failures; imprimatur of Christianity; images and faces of life and way of life; social structures related to exposed and unexposed ethical orientation and its implications and conclusions. During the analysis the researchers found out that rituals and ceremonies were celebrated according to purpose and occasion. Some of the reasons for celebration were: prevention and cure of illness, safe voyage, good harvest, safety of mother and child at childbirth. The poems are also rich in cultural values and songs reflect the colors of successes and failures in life. Based on the results of the analysis, the researchers came up with the following conclusions: the people of Western Visayas are superstitious; they value their families and friends; they are cheerful and have positive outlook in life; they are determined; they are also emotional and sentimental when it comes to love; they have a strong faith and devotion to God and Virgin Mary; and with high moral and spiritual values. It is recommended that the results of this study must be published; a program of activities should be established to preserve the indigenous literature; furthermore, close collaboration with the local government and other agencies and institutions must be intensified in order to come up with significant projects that will promote enrichment of local oral literature through activities such as singing of *komposo* (Hiligaynon ballads), recitation of poetry and *dayaw* (to honour queens during fiestas), and other Hiligaynon-Kinaray-a poetry; and conduct related researches on compilation and analysis using other literary criticism methods.

047

## Teachers on the Move: An Assessment on the Effective Use of Kindergarten Mathematics Instructional Materials

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**Abstract.** Kindergarten teachers play a significant role in the foundation of a child. With the changes and demands of the curriculum, the teachers must address the needs of the learners. One key consideration is to provide effective contextualized instructional materials with the use of technology. Though there are already available resources provided by the school and its department, the teachers are still facing a lot of challenges. This study assessed the effectiveness of the kindergarten instructional materials in Mathematics in northern barangays. Kindergarten as the first level of formal education, its contents are expected to be delivered with appropriate instructional materials in a meaningful, relevant and interactive teaching.

**Keywords:** *Kindergarten curriculum, Mathematics instructional materials, contextualization, technology, assessment, northern barangays*

048

## Level of Competence Among Kindergarten Teachers in Handling Blocks of Time: Proposed Training Program

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**Abstract.** Implementation of kindergarten education has just recently offered in the public schools of Philippine educational system. Most of the teachers being hired were not graduates of a four-year degree program that is specialized in handling 5-year old learners. They just obtained their public school teacher item by enrolling with 18-unit special program offered by teacher education institutions for a semester or two. Handling kindergarten classes has a significant difference from the basic education curriculum that started with grade one to twelve levels. This has to follow a thematic approach referred to as Blocks of Time. Department of Education (DepEd) initiated seminars and workshops were offered so that teachers will be acquainted with the necessary knowledge and skills kindergarten teachers should have specifically in the Blocks of Time utilization. This paper presents the level of competence among kindergarten teachers in Blocks of Time utilization in one of the districts in the division of Bohol so that appropriate training programs could be offered based on the findings.

049

## Explaining the Academic Performance of Grade 7 Students as Influenced by Social Media

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**Abstract.** Social media is prevalent in today's classrooms and schools. It has been viewed by teachers as an aid in instruction as students can be engaged in its different platforms. However, the excessive use of social media especially during weekdays can be alarming to both teachers and parents. This study looks at social media network participation and academic performance in Grade 7 students of Baybay National High School. The study was aimed at identifying the correlation between social media and students' academic performance in Mathematics. The study used both qualitative and quantitative research design which involved the survey of students in three Grade 7 sections and the conduct of a standardized test in Mathematics wherein they were categorized according to the number of hours they spent in social media a day. The study revealed that there was a correlation between the number of hours spent on social media a day and students' academic performance. Furthermore, there was a significant difference between the test scores of the students who use social media for less than an hour (0 hour) and those who use for 1-3 hours and 7+ hours. This indicated that students with lesser time spent in social media a day performed better. The study recommended to minimize the use of social



media a day and prioritize academic purposes above others. On top of that, it encouraged to make study a habit for students.

050

## Calculation of Special Angles in Trigonometry via Visual Mathematical Hand Mnemonic Tactic (VMHMT)

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**Abstract.** In 2016, the Mathematical Society of the Philippines (MSP) testified that among Filipino learners of ages 14-18, 85% experienced the dilemma on dealing with the evaluation of special angles in Trigonometry wherein 45% was from public high schools. Thus, this study aimed to determine the potential of a visual mathematical hand mnemonic tactic (VMHMT) as fast and accurate classroom mathematical mnemonic strategy in evaluating special angles in Trigonometry. A 20-item multiple choice type test with 50-minute time allotment which was carefully validated by three experts in the field of Trigonometry was utilized. Reliability of the test items was also measured via Pearson's  $r$ . Class sessions for all the manual strategies with discussions, tests, drills, and practices were executed before the actual administration of the test. The test was administered three times with 7-day interval for each strategy with uniform starting time. An interview was also conducted after the test. ANOVA results showed no significant difference among the three manual strategies in terms of accuracy of answers ( $p=0.373$ ) which means that the accuracy of the VMHMT is comparable with that of the other existing manual strategies. Meanwhile, significant difference was obtained in terms of speed of calculations ( $p=0.000$ ) wherein the use of unit circle rendered longest time for calculations ( $M=21.234$ ) while the VMHMT ( $M=14.70$ ) and table of trigonometric ratios ( $M=14.23$ ) appeared to be very fast. Interview results revealed positive feedback for the utilization of VMHMT. Learners find the strategy more relevant and experiential which could make a more lifelong learning.

051

## Development and Production of Computer Generated Instructional Materials for College Geometry

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**Abstract.** Printed materials such as worktext and textbooks are considered the best instrument in improving transfer of learning since these materials can simulate a human facilitator to teach efficiently and effectively. Thus, this study aimed to develop and produce a computer generated instructional materials (CGIM) in College Geometry. To attain this, the researcher used the

model for research and development by Borg and Gall (2003) with revision. The first phase of the study is the assessment. It involved eighty-three (83) Bachelor of Elementary Education students. This research utilized an 80-item researcher-made test. Statistical tools employed were percentage, mean, standard deviation, and t-test for one sample. The second phase is the development and production using document analysis methods. The result of the first phase shows that students have significantly low competencies in all the topics in College Geometry compared to the passing mean set by the PRC for teachers. Thus, the researchers developed a CGIM, specifically, the worktext paired with multimedia presentation. The process used were, inspection of the course syllabus, planning, product development and designing assessment instrument, first output production, validation by mathematics teachers, expert validation, and try out to students. The parts were objectives, learning concepts, exercises, evaluation, and performance task. The topics included were logic and reasoning, geometry of shapes and size, angles and perpendiculars, triangle congruence, quadrilaterals, similarity, circles, and plane coordinate geometry. Every topic has corresponding subtopics. It is recommended that the CGIM will be used in Mathematics classes to improve students' achievement, habits of mind, and problem solving skills.

**Keywords:** Development and Production, Computer Generated Instructional Materials, Worktext, Multimedia Instruction, College Geometry

052

## Evaluation of the Developed and Produced Computer Generated Instructional Materials for College Geometry

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**Abstract.** The State University and Colleges as an institution of higher learning mandated its faculty not only to teach (instruction) but also to produce knowledge (research) and apply the results to benefit the community (extension). An additional mandate among faculty was to produce instructional materials (production) for students and teachers consumption. Thus, this study aimed to evaluate the developed and produced computer generated instructional materials in teaching College Geometry. To attain this, the researchers used descriptive-evaluative design. The respondents were the twenty (20) teachers teaching Geometry and Curriculum Development. Instruments used were worktext and multimedia efficiency rating scale, usefulness, accuracy, completeness, and appropriateness rating scale. The result shows that in terms of physical attributes, objectives, content, exercises, and evaluation, the worktext have "very high" efficiency level while in terms of content, physical attributes, and visual clarity the multimedia presentation achieved "very high" efficiency level. It was also found out that in terms of usefulness, accuracy, completeness, and appropriateness, the developed CGIM have attained "very high" level. This means that the developed CGIM achieved the excellent level of instructional material development. It is recommended that the CGIM will be used in Geometry classes to improve students' achievement, habits of mind, and problem solving skills.

**Keywords:** Evaluation, Computer Generated Instructional Materials, Worktext, Multimedia Instruction, College Geometry

053

## Meta-Ethnography Modification of Student Facilitator and Explaining (SFE) Learning Model and Cooperative Learning Model of Time-Token Type

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**Abstract.** This study aims to combine Student Facilitator and Explaining (SFE) learning method with Cooperative Learning Model of Time Token Type. The merger of these two methods of learning is based on the results of previous research. This research used meta-ethnography method. Meta-ethnography is a technique used to develop new theories in order to complement existing theories. The unit of analysis in this research is written documents about student facilitator and explaining (SFE) learning model and cooperative learning model of time-token type in the form of journal articles and research reports taken purposively based on their conformity with the research theme. The main instrument of this research is that the researcher itself is assisted by a documentation guide. The data analysis used is a qualitative data analysis for the result data of narrative study to the researches encountered.

**Keywords:** Meta-Ethnography, Student Facilitator and Explaining (SFE), Time Token

054

## Anti Corruption Perception and Modeling a Critical Study among Educational Institutions in Pacitan, Indonesia

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**Abstract:** Corruption becomes a central issue in Indonesia grounding from the accurate portrayal of a data and information. However, the consistent action must be taken into account. Therefore, the critical discussion in this research aims at: (a) analyzing perceptions and awareness of anti-corruption understanding of school civitas among educational institutions in Pacitan, Indonesia; (b) formulating useful modeling for anti-corruption education in Pacitan, Indonesia; (c) establishing implementative strategy of the anti-corruption education in Pacitan, Indonesia. Moreover, the use of action research is a well-established method in this research. The researcher took the data from March to April 2018. The number of respondents was 159 people, consisting of 70 men and 89 women, scattered in junior and senior high school. The further findings revealed that: (1) respondents' perceptions and awareness of anti-corruption education are perfect, that is 89% of those who responded; (2) Teenager Corruption Watch (TCW) is a valid model for anti-corruption education in Pacitan, Indonesia. It can be viewed from 87% of respondents who admitted very satisfied with this TCW model, and 23% somewhat disagree for the rest; (3) the implementative strategy of the anti-corruption education is carried out through role-play based

TCW in education institutions of Pacitan Regency, Indonesia. Thus, the majority of the school civitas in Pacitan regency have understood that corruption is a cruel act, which is denied and condemned for its existence. The TCW model became one of the practical learning strategies in preventing, as well as against corruption at educational institutions in Pacitan.

**Keywords:** Perception, Modelling, Teenager Corruption Watch, Pacitan.

055

## The Identification Difficulty of Quantitative Reasoning Process toward the Calculus Students' Covariation Problem

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**Abstract.** This study aims to identify the calculus students' difficulties who involve in the process of quantitative reasoning toward covariation problems. The students of mathematics education program who are taking the calculus involve as the subject in this research. The research process is done in some stages; namely: first, assigning covariation problem within 60 minutes. Second, correcting and selecting the results that show the student's difficulties of the covariation problem, then it is followed by confirming students' answers through task-based interview process. Further, the process analyzed qualitatively by describing the students' difficulties in the reasoning process. The research results are the calculus students' difficulties descriptions in quantitative reasoning problems of covariation process, including: 1) the difficulties in building quantitative structures to generate new quantities; 2) the difficulties in identifying the curved graph on the covariation problem due to the tendency of linear quantity construction; 3) generally, more than 85% calculus students have difficulties in the quantitative reasoning toward covariation problem process.

056

## The Implementation Media Bigbook Writing Based Brainwriting Learning Toward The Writing Story Learning at The Primary School

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**Abstract:** Learning is a processed to communicate theory to student with a stimulus and respond. In communicate can do with a several ways, ther are writing, reading, listening in the learning activity. When writing learning, student often experience some problem, they are

constained on the disclosure of their ideas to be pround on an essay or story. Therefore, in the process of learning Indonesian language, a lot of student who are less enthusiastic and less interested to follow the activities of writing an Indonesian story. So it takes stimulus to that student, it can be interested and can grow their creativity in learning to write a story. Stimulus needed by using Brainwriting model used bigbook story media.

In the class, this media is very supportive once to growth interest in writing students, because at book "big book writing based brain writing learning" has some 3D Pop Up animation picture can make imaginations of student to write a story. In the matery of this book, not only display pop up animation picture, but also has contain matery how about Indonesia culture. This book also aim to student so as not to know only about the Indonesian language material, but also must be know with Indonesian culture. And then, Brainwriting model used bigbook story media in implementation make the student to write training with pouring their ideas into discussion at the colouring letter and discussion with his friend to finishing their writing task.

**Keywords:** media bigbook , Brainwriting Learning, writing , story

057

## The Development of a Web-Based Creative Writing Learning

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**Abstract.** Students often assumed writing as a difficult thing, especially writing a literature. This occured due to writing learning was less maximum in providing a medium for students to materialize their iedas into a writing language. Therefore, it was needed a creative writing learning that is able to improve a student creative learning device. This research was aimed to develop a web-based creative writing learning that comprise of: 1) syllabus, 2) Class Event Unit (SAP), 3) web-based learning media and 4) instrument of a feasible and effective writing assessment to improve a student writing ability. This was a *Research and Development (R&D)* study developed by Borg and Gall. The research results included: 1) Web-based creative writing learning was assesed good by material expert with score of 82. Besides, 56% and students who were asked response also assess good these learning. 2) Web-based creative writing learning was also declared effective based on the existence of average improvement and difference prior to and after treatment during an operational field. The conclusion that could be drawn was that learning that has been developed was declared feasible and effective in improving a creative writing ability. Besides, these learning could also be developed in other materials by adjusting a learning device developed.

**Keywords:** creative writing, learning, web, students

058

## The Increase in Child-Friendly Learning Management Towards The Formation of Character Students in SD Inclusive

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**Abstract.** The purpose of this study is to describe and analyze: a child-friendly learning planning, the implementation of a child-friendly learning, and child-friendly learning evaluation. Research methods using qualitative interpretive, to analyse and interpret the management of child-friendly learning at four primary schools in Brebes Regency inclusive with the subject of this research master class as many as 24 people. Using data collection techniques interviews, observation and documentation. The results of his research are: the planning of learning set a goal of learning tailored to the needs of children, develop a syllabus and RPP who modified to the child's condition, planning classroom management, strategy approach to learning activities based on students, and learning activities of the child-friendly procedures; implementation of learning to give motivation to students, learning to use media to suit the needs of students, applying learning methods that involve students, provide concrete examples known to students. While the value of character students formed is fair treatment, application of norms of religion, social norms and local culture, affection, and respect each other; the evaluation of the learning by means of flexible assessment, the assessment are tailored to the conditions of the various needs of learners.

059

## A Simple Arduino-LINX-LabView Based Characterization of $g$ Vector Components on Accelerometer ADXL345

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**Abstract.** Simple characterization of the ADXL345 accelerometer has been developed in the form of a tool to determine the vector accelerometer components which is initially parallel to the z-axis then rotated against the x-axis or y-axis, or rotated against the x-axis and y-axis simultaneously. Hardware used here is an accelerometer ADXL345 connected to Arduino Uno, while data acquisition software and real time viewer is LabView 2014-LINX. Data is displayed in the form of numbers and real time charts. The 3D Phytagorean theorem is used for the calculation of vector component values on x, y, z axes. The results show a good fit with R2 values greater than 0.9. It is expected that the developed system will be able to be used as a real physics learning tool on the topic of static vector projection.



060

## A Simple Experiment Based on Arduino-LINUX-LabView to Show Radiation Absorption of Incandescent Bulbs on Several Colours Cloth

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**Abstract.** Simple experiment to show radiation absorption of heat on several colours of cloth has been developed. Hardware used here based on five temperature sensors LM35 each covered with white, black, red, green and blue cloth connected to Arduino Uno, while data acquisition software and real time viewer is LabView 2014-LINUX. Data is displayed in the form of numbers and real time charts. The results show a good fit with R2 values greater than 0.9. It is expected that the developed system will be able to be used as a real physics learning tool on the topic of static vector projection.

061

## Teaching Translation Through Cultural Interactive Storytelling by Using Three-step Interview Technique

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**ABSTRACT.** Translation is not only about transferring from one language into another, but there are also some types, strategies, and processes in transferring the language, the culture, as well as its meaning from the source language to the target language. Translation today is known as frequently used strategy for students especially to understand second language or foreign language in a classroom. And when taking translation subject, students seem to feel boring and having less motivation. Based on those facts, this research aims to explore and examine more about teaching translation through cultural interactive storytelling with the use of three-step interview technique in order to provide new format of teaching aid by using technology to increase students' motivation and competence in the field of translation pedagogy. The data were gathered through questionnaire which contains ten close questions about the students' competence in English and their expectations for their active learning activities. Qualitative descriptive method has been used to analyze the data. After collecting the score of the questionnaires and getting the data from the three-step interview technique conducted in the class, the writer tends to examine the students' competence by giving grade. The results revealed that cultural interactive storytelling media is really effective to help students to improve their understanding about the process of translation and interpretation as well as to understand more about some other different cultures around them. Also, the use of three-step interview technique in conducting the students' basic language skills has been done well.

**Keywords:** teaching translation, translation, cultural interactive storytelling, three-step interview

## Query Optimization : A Metaheuristics Approach Using Memetic Algorithm

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**Abstract.** The more complex business process of a system, the greater data that is stored. Increase of data transactions have an impact on a system performance. In a large data storage, it is important to optimize the query processing to make the system can be utilized optimally and the processing time can be minimized. A memetic algorithm (MAs) are population-based metaheuristics constitute an extension of the traditional genetic algorithm combine with a local search technique. Using this approach in this research produce the proposed query optimization memetic algorithm. The result shows that the processing time of the optimized query more faster than the unoptimized query.

## The analysis of mathematic problem solving ability by polya steps on material trigonometric reviewed from self-regulated learning

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**Abstract.** The problem solving ability is a personal capability to identify the existing condition and relate it to knowledge owned by students. The steps in problem solving according to Polya are problem understanding, planning, implementing and evaluating of problem solving. This is a descriptive qualitative research which aims to describe and analyze students' ability in problem solving based on Polya's steps reviewed from self-regulated learning. The subject of the research is two students in each SRL (high, middle, low). The method of collecting data is test and interview. The result of the research comes to the students with high SRL can apply the Polya steps. The students with middle SRL can apply the problem understanding step. In the step of planning, students write the strategy leading to the correct answer but it has not completed yet. In the implementation step, students do the planned strategy but less complete in doing the calculation and they give improper conclusion at the evaluation step. Meanwhile, the students with low SRL can understand the problem by writing down what they know and what is asked. At the planning step, students write the relevant strategy but improper as heading to incorrect answer. At the step of implementation, they do not do the strategy appropriately as well at the stage of evaluation.

**Keywords:** Problem solving ability, Polya, Self-regulated learning



064

## **The Virtual School of Indonesian for Speakers of Other Language (Bipa) Using Video Blog (Vlog): The Effort of Indonesian Language Internationalization by Current Online Media**

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**Abstract.** This paper represented about analysis of the increasing of Indonesian for Speakers of Other Language learning using current technology. However, video blog a.k.a vlog was a part of teenager now days, in Indonesia or in another countries. Thus, this media became strategic and representative to promote everything, especially Indonesian for Speakers of Other Language (BIPA). This paper used qualitative descriptive methodology approach. There were many interesting results from this research e.g. 1) the form of BIPA learning using vlog; 2) the advantages and disadvantages of BIPA learning using vlog; and 3) the effect of BIPA learning using vlog. This paper argued that the effort of internationalization had many ways. It was not only by delivering BIPA teachers to overseas, but also using technology and online media massively.

**Keywords:** bipa, vlog, learning technology, Indonesian language internationalization.

065

## **Open Ended Mathematical Problem Solving: an Analysis of the Creative Thinking Ability of Elementary School Students**

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**Abstract.** The purpose of this study was to describe the creative thinking ability of elementary school students in solving open-ended math problems. This type of research is qualitative that seeks to analyze students' creative thinking ability in solving open-ended math problems. The subjects of the study were the 5th graders of elementary school. Research subjects amounted to 3 students with different mathematical abilities. Data collection techniques include observation, tests and interviews. Data analysis is done by data reduction, data presentation and verification or conclusion. Data validity technique is done by triangulation of data source. The results showed that students with high-level mathematical ability have good creative thinking ability, whereas students with medium and low category math ability have less creative thinking ability. With the results of this study, can give an idea that the ability to think creatively needs attention in learning mathematics.

066

## Open Ended Mathematical Problem Solving: an Analysis of Elementary Students' Creative Thinking Abilities

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**Abstract.** The purpose of this study is to describe the creative thinking ability of elementary school students in solving open-ended math problems. This type of research is qualitative that seeks to analyze students' creative thinking ability (CTA) in solving open-ended math problems. The subjects of the study were the 5th grade of elementary school students. Research subjects amounted to 3 students with different mathematical abilities. Data collection techniques include observation, tests and interviews. Data analysis is done by data reduction, data presentation and verification or conclusion. Data validity technique is done by triangulation of data source. The results showed that students with high and medium level mathematical ability have good creative thinking ability (CTA), whereas students with low category math ability have less creative thinking ability (CTA). Those results of this study can give an idea that the ability to think creatively needs attention in learning mathematics.

067

## Differential Problems with Different Type Solutions

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**Abstract.** This research describes the process of representing problem solving problems for preservice math teachers. The study was conducted at a university in East Java, Indonesia. The subject is given a differential problem and is followed by an interview for answers that require clarification. The results showed 3 types of settlement based on the characteristics of the subject's response. The first type appears by trial and error using point substitution, the second type translates the graph to the minimum maximum point to determine the linear equation, the third type translates the graph into a symbolic form of interval to determine the increase and fall of the graph requested. The representations of symbols and statements appear in each type of agreement. But some subjects do not completely solve the problem of differences with adequate representation. Subjects need to enrich the experience of various forms of representation, especially in the problem of differential and understand the concept of differential with complete.

068

## Community Service of Traditional Lurik and Leather Material Processing to Improve Market Access

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This community partnership program activity aims to improve the quality of production and marketing development according to needs partner. This grant implementation is carried out through training, procurement and accompaniment. The training included design training products, product packaging training, and product manufacturing training. Output from This training activity is an increase in insight and skills from the relevant partners product design and variety of Kullu product designs. The procurement phase is carried out through procurement of goods in the form of 3 sewing machines that are not owned by partners, procurement of labels with a new brand "Kullu", and web procurement that can be used as a media sales. The output of this procurement activity is that partners can produce bags with various variations. Through the brand new label, Kullu, both partners.

Collaborate to create new products and have selling power. Web procurement can help partners to promote products easily and widely. Assistance to the bag production process is carried out during the bag making process. Team make observations and observations to obtain results in accordance with that expected. The output of this activity is 10 bags with new designs that will marketed with a new brand, Kullu.

069

## Community Service as A Teaching Method and its Impact on Student Performance

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**ABSTRACT.** This research study employed quasi-experimental design of two groups using pretest-posttest. Two groups were assigned to different treatments, the Control Group stayed inside the classroom while the Experimental group were exposed to community service. The manner of groupings was based on the randomized design lottery method technique. Results revealed that there was a significant difference in the student academic performance of the BS Biology students after the intervention using community service as a teaching method. Furthermore, the data gathered were triangulated using Focus Group Discussion (FGD) from the respondents, specifically personal reflections, observations, and in depth interviews to the students and the residents of Barangay Daculan, Estancia, Iloilo. This implied that the conduct of the intervention brought significant effects to the student academic performance. Likewise, the people of Brgy. Daculan have widened their perspective, awareness and familiarity towards their surroundings after the series of lectures conducted in the community. Therefore, it can be stated that community service when used as teaching method was highly effective to both

students and community as revealed in the post test results of students' academic performance. Students were motivated in extending the skills acquired from the classroom and had developed sense of commitment to help, impart their knowledge and have given them the opportunity to learn practical things from peoples' experiences in a way they never had in the classroom. As for the residents, they showed positive responses from what they had gained from the series of lectures. Moreover, self-confidence was developed by the residents of the said barangay at the end of the activities. Therefore it can be stated that the intervention improved the quality of instruction when used as a teaching method through community services.

070

## Nutritional Status And Its Impact on Academic Performance of Selected Grade 8 Students

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**Abstract.** This study aimed to determine the nutritional status, causes of malnutrition and its impact on academic performance of Grade 8 Students with wasted and severely wasted BMI. The researcher used the descriptive – correlational research method which described the relationship between variables. Four (4) variables were used in this study such as poverty, health condition, eating habits, and illiteracy. The results showed that sometimes health condition and illiteracy are the contributing factors for malnutrition as evidenced by the average mean of 3.06 and 3.58 respectively. While most often, poverty and eating habits contributed for the causes of malnutrition. Negligible negative correlation existed between weight and academic performance based on the computed  $r$  value which was less than the tabular value of 0.349 at 5% level of significance. The obtained chi – square value between nutritional status and academic performance was found to be insignificant since the obtained chi-square value was less than the tabular value of 9.488 at 5% level of significance. As revealed in the study, no significant relationship existed between the following variables: poverty and academic performance, health condition and academic performance, eating habits and academic performance, and illiteracy and lack of education about proper nutrition and academic performance. Thus, the researcher recommends that continuing School-Based feeding program be strengthened. Further, it is also recommended to encourage the active involvement of parents, communities and local government in the implementation of intensified school nutrition program.

071

## **Enteropathogenic Bacteria on Processed and Prepared Foods in Naguilian Public Secondary Schools**

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**Abstract.** This study identified enteropathogenic bacteria in processed and prepared foods in Naguilian Public Secondary Schools. It looked into (1) the practices in food handling and delivery; (2) the enteropathogenic bacteria present in processed and prepared foods ;(3) the frequency of contamination per sample per collection site; and the (4) formulation and validation of an Action Plan on food handling. Using descriptive research, it came out that the three schools under study don't practice proper food handling guidelines along areas of Personal Hygiene, Related trainings and certification, Workplace, and Cooking and actual food preparation. The Pour Plate method and Conventional method were used to identify significant enteropathogens, in which Enterobacter spp., Klebsiella, and E. coli were isolated from the food samples. An Action Plan was formulated and validated to address the areas of concern on food handling in the schools studied.

072

## **APEC Learning Community Builders (ALCOB) Green Heroes**

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Involving communities is not that easy, it can be tough. How to persuade three middle schools to connect in and engage could really be tough. All too often, learners know they should act, that they should care, but tapping into these desires to create real change can be tricky, particularly with the conceptualization of a project between three schools from different parts of Asia, it could result to resistance. People are often connected digitally, but not always in person. People are used to actions that reward them, often short-term rather than long-term. People like to be engaged and entertained. But using the internet particularly facebook in bringing diverse communities together to create a turning point for change to help steward the environment could be an advocate in question as far cooperation and willingness are concerned.

073

## Technology Innovations Initiated, Leadership Practices and Performance of Secondary School Heads: Bases for Enhancement Development Program

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**Abstract.** The paper describes the technology innovations initiated, leadership practices and performance of secondary school heads: bases for enhancement development program. The mixed method design was used to enhance this study. The study was conducted among public secondary school heads in the Division of Iloilo. The respondents of the study were thirty six secondary school heads. The findings revealed the secondary school heads needs enhancement development program to improve their technology initiatives, leadership skills and relevant training on school management.

074

## LNU Pre-service Secondary Science Teachers' Scientific Literacy and Science Teaching Self-Efficacy

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**Abstract.** The main purpose of this study is to determine Leyte Normal University's pre-service secondary science teacher's scientific literacy and science teaching self-efficacy. Further, the relationship between scientific literacy and science teaching self-efficacy is explored. Participants were 50 fourth-year students enrolled in the BSEd Biological Science program. Survey method was used in this study. The participants' science teaching self-efficacy was determined by Science Teaching Efficacy Belief Instrument (STEBI-B) developed by Enochs and Riggs (1990), while scientific literacy was measured by Test of Basic Scientific Literacy (TBSL) created by Laugksch and Spargo (1996). The results showed that the pre-service teachers' science teaching self-efficacy is at the medium level. Further, participants had satisfactory scientific literacy levels. The Pearson product-moment correlation revealed a moderately positive relationship between scientific literacy and science teaching self-efficacy.



075

## Students' Difficulty in Solving Algebraic Expressions and Equations: Focus on Structure Sense

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**ABSTRACT.** This study utilized the exploratory method of research to investigate the structure sense in algebraic expressions of different cohorts of students. Results of the study showed that the students portrayed different methods of solving mathematical expressions and equations associated with their ability to recognize the structure sense of every task given. Those who have adequate knowledge and skills got the answer quickly and accurately, while those who are not familiar with the structure sense of the algebraic task find difficulty in solving which yield to an ambiguous solution, and leading to incorrect solutions. Furthermore, it was found out that these difficulties include the lack of conceptual understanding about the given problem, poor skills in manipulating expressions, calculation mistakes, and technical errors like carelessness and untidy solution.

The ability of students to recognize the structure sense of an expression provides an idea about the next steps to be undertaken and be able to perform the appropriate manipulations. Thus, Algebra must be given attention with more emphasis on teaching and learning structure sense. Giving feedbacks on students' works can directly solve the difficulties they experience.

**KEYWORDS:** Structure sense, Qualitative, Algebraic Expressions and Equations

076

## Constructively aligned teaching sequence (CATS): a tool for teaching organismal biology in STEM senior high school education

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**Abstract.** This paper presents the developed and evaluated innovation, the Constructively Aligned Teaching Sequence (CATS). This teaching sequence is a K to 12 compliant that may be used in teaching the topic on human organ systems to Senior High School students. The CATS' prototype was constructed and tested in authentic school context. The development was done using the design principles embodied in the model of educational reconstruction proposed by Duit et.al. (2005). The evaluation was conducted by looking into the students learning outcomes and teachers' evaluation. The research instruments included students' pre-assessment/post-assessment drawing, pretest/posttest, questionnaire, and recorded unstructured interviews. Quantitative and qualitative data corroborates that use of CATS contributed to the attainment of the students' learning outcomes. In conclusion, future prototypes may be developed to address more strongly students' alternative conceptions through the applied design principles or add new design principles. Findings showed that CATS may be redesigned to further strengthen the correct conceptions, enhance limited conceptions and remediate conceptions in conflict with

the accepted biological concepts. Furthermore, this study provides an avenue for further research on its improvement such as construction, usage, handling, and storage of the student outputs.

077

## **"Spiral Progression Approach in Teaching Science and the Performance of Learners in District I, Capiz"**

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**Abstract.** This study was conducted to determine the relationship of the implementation of the spiral progression approach (SPA) in teaching science and the students' performance. It also aimed to find out the extent of SPA implementation in terms of technical support, school facilities, and level of readiness; difference in SPA implementation as to Monitoring, Mentoring, and Motivation; students' performance from grades 7,8,9, and 10 in different schools; difference in the students' performance; relationship on SPA implementation and different grade levels, and different schools; problems encountered in SPA implementation; and the IP proposed to improve the SPA implementation and the students' performance.

A questionnaire was used to gather data on the SPA implementation and secondary data for students' performance. Statistical tools used were means, frequency counts, percentages, standard deviation, t-test, ANOVA, and Pearson r.

Results reveal that respondents are 21-30 years old, females, specializing in integrated science, with Bachelor's Degree, 1-10 years service, and holding Teacher I positions; their SPA implementation in teaching science is 'fair'; no difference existed in their SPA implementation by dimensions; the students' performance from grades 7, 8, 9, and 10 in the different schools is very satisfactory; differences existed in the students' performance from grades 7, 9, and 10 in different schools; but none in Grade 8; no relationship existed on the SPA implementation and different grade levels, and in different schools; the top five (5) problems in the SPA implementation included teaching guides and learning modules as have not yet been massively distributed; the SPA implementation is not well-planned; lack of qualified teachers; incompetency of teachers; and time spent for teachers' training is not enough; and a Training Program is proposed to better prepare and equip the teachers in the SPA implementation in teaching Science.



078

## Student-Team Achievement Division (STAD) and Its Effect on the Academic Performance of Grade 8 Students

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**Abstract.** Student-Team Achievement Division (STAD) is one of the cooperative learning structures that make use of rewards or incentives to promote team collaboration. This study finds out the effects of STAD on the academic performance of Grade 8 students in physics in a public school. There were two groups in this study: the experimental group and the control group. The experimental group utilized STAD while the control group employed the Inquiry-Based Approach. Each group has thirty-two (32) respondents. The instrument of the study was a researcher-made achievement test. This study lasted for six (6) weeks which covers the entire first quarter of Science 8. This research made use of the true experimental design. The comparability of the experiment was tested using t-test. The result showed that there is no significant difference in the posttest mean scores between the experimental and control groups. However, students exposed to STAD posted higher gain scores compared to the students exposed to the Inquiry-Based Approach. Based on the findings of the study, the use of STAD has improved the students' academic performance through cooperation with their groupmates.

079

## He Is Dancing Her Groove?: Coping Gender Stereotyping In Dance

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**Abstract.** As the world advances, the altering views of gender are matters of interest because of the numerous dancers who are still subjects of gender stereotyping which particularly part of a dance culture. This Grounded Theory study constructed the Theory of Life Experiences and Principles in Dance to elaborate the encounters of ten dancers in Iloilo City and focused on coping with gender stereotyping in dance in different genres. The study in nature was qualitative, which employed one-on-one interview, profile identification, and the use of open, axial, and selective coding. The Theory of Life Experiences and Principles in Dance explains that as the dancers learn to cope, their alertness to gender stereotyping was visibly shown in their passion in dance, life experiences, principles in life, and to the important people who helped them all throughout the coping process. The main story line was developed from the dancers' coping process using their life experiences and principles in life as a response to gender stereotyping. From the learning experiences, the mechanisms the dancers' coping process were identified as inspiration, expression, and focus. These led to the adaptation of their principles in life such as discipline, life is better, and respect. They were into different dance genres but they shared common experiences and principles that made them strong to continue pursuing their craft.

080

## Anti -Bullying Mission- A step towards betterment of education

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081

## Level of Awareness on Disaster Preparedness

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**Abstract.** This paper investigated the Level of Awareness on Disaster Preparedness of the residents of Mimbalot, Buru-un, Iligan City. Stakeholders, community, and the school focal people were involved in this project. Purok Enablers and Purok Presidents, who facilitated the survey, were subjected to orientation on how to conduct the survey. The collection of data started with the giving of the survey forms to the residents using the researcher-made survey written in native language (*Sinugbuanong Bisaya*) for clear understanding. The processes of the project start from gathering, analyzing, and reporting the data gathered. After gathering and analyzing the data, result revealed that respondents are vulnerable to the presence of trees and more than half of them don't have emergency exits, kits, and hotlines. With the result, respondents were given brochures and leaflets to be oriented and educated of the importance of being prepared during emergencies in addition to involving them in earthquake and fire drills, and meetings on disaster risk management in the school.

082

## Diglossic Approach in Teaching Elementary Science: an Innovative Strategy

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This action research is about using local language as intervention in teaching elementary science in below average learners. The use of mother tongue as ways of communication in basic science in primary schools can assist as a means of enhancing science teaching and learning process. In addition, it can also help in presenting and preserving the value of one's culture. This study

aimed to find out the effect of using mother tongue and English as medium of instruction in teaching elementary science. Majority of the elementary pupils around the country that are not native speaker of English, thus, they find Science a difficult subject most especially the below average learners. The pre-test performances of science learners in diglossic and traditional approaches were all below average with the mean scores of 10.71 and 11.29, respectively. However, the post-test mean scores obtained by the diglossic group was high (28.49) compared to the traditional group which was below average (15.27). The t-test for paired samples test exposed a significant difference in the pre-test and post-test in the diglossic approach as well as in traditional approach. Furthermore, the result suggests that both groups had more or less the same scores at the start of the intervention and were therefore comparable in terms of performance. The result indicates that although both groups gained, the diglossic approach had a greater mean gain and therefore had a better performance compared to the traditional group. Learning science required comprehension, teaching using our local language help learners achieved the goal to increase their performance.

**Key words:** elementary, Science, intervention, English, mother tongue

083

## **Problem-Based Lesson on Gas Laws Utilizing PhET Simulations: Its Effect on Meranao students' Conceptual Understanding, Critical thinking Skills and Attitudes**

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**Abstract.** The study aimed to determine if Problem-based lesson utilizing PhET (Physics Education technology) Simulations on gas laws has an effect on Meranao students' conceptual understanding, critical thinking skills and attitudes. PBL were validated by expert on content and pedagogy to ensure self-instruction capability of the instructional material. Achievement Test Questionnaire on Gas Laws were based on Tables of specification (TOS) and were validated by content experts and tested for reliability, while Critical Thinking Skills and Attitude questionnaires where adapted from Tetunes [7] and Linog [4] respectively. Utilizing Quasi-Experimental Pretest-Posttest research design, the study purposively conducted to grade 10 at MSU-Marantao Community High School, a meranao populated school. They are paired based on the pretest scores for the control and experimental groupings. Results indicate that both groups showed significant difference in the conceptual understanding and critical thinking skills. However, mean scores of the experimental group is much higher than the control group. Moreover, Standard Deviation (SDs) in the experimental group decreased while control group increased in their critical thinking skills data. This study proved that PBL utilizing PhET simulations can improve understanding, critical thinking skills and attitudes of Meranao students and therefore, it could be used as alternative strategy in teaching gas laws to grade 10 Meranao students and students alike.

## Behavior and Academic Performance of Overseas Filipino Workers' (Ofws) Children

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**ABSTRACT:** The main thrust of this research was to determine the relationship of behavior and academic performance of OFW and Non-OFW children. Furthermore, this aimed to distinguish the difference of behavior and academic performance of both children. The descriptive documentary method was used with the questionnaire as data gathering instrument to determine the behavior of both children and the general average ratings of their academic performance. Pilot testing was made before the questionnaires were distributed. The study was conducted at Mabini, District during the school year 2016-2017. The participants were the fifty (50) OFW and 50 Non-OFW children of both grades five and six of the said District. It shows that, there is a significant relationship between the behavior and academic performance of OFW and Non-OFW children. Moreover, there is no difference between their behavior and academic performance. Concluded, that both OFW and Non-OFW children have desirable behavior towards parents, home environment and school. The absence of one of the parents of the OFW children has no bearing with their behavior and academic performance compensated that a parent/guardian was left to guide the children towards their behavior and studies. To enhance and sustain the behavior and academic performance of OFW and Non-OFW children, school administrators may initiate values formation seminar-workshop, teachers may maximize the children's potential to enhance and improve academic performance by encouraging the children to participate and get involved in to any activity, teachers may keep on conducting monthly meeting to the parents for feed backing and giving updates towards the children's behavior and performances, parents may maintain the appropriate way of nurturing their children, and children may actively join, participate and involve activities that may develop their socialization skills, self-confidence and friendship with other people.

## Orton-gillingham Approach and Grade I Pupils' Reading Ability

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**ABSTRACT.** The main thrust of this study was to determine the effectiveness of Orton-Gillingham approach in the reading ability of Grade I pupils. Specifically, it sought to determine the difference in the reading ability of the pupils exposed to Orton-Gillingham approach from those exposed to Conventional approach (Marungko). Moreover, it proposed an action plan to integrate the use of Orton-Gillingham approach in teaching reading. The study utilized the pretest-posttest quasi- experimental design. Forty eight (48) grade I pupils in San Vicente Elementary School and Lapinig Elementary School were the respondents of the study. The pretest scores pairing with 24 respondents in each group determined the grouping of the respondents. Orton-Gillingham approach was used in the experimentation. Data were collected using the early grade reading assessment tool kit. These were administered in the two groups

of respondents those were exposed to Orton-Gillingham approach from those exposed to Conventional approach (Marungko), respectively. Based on the findings, there is no significant difference in the performance between the pupils exposed to Orton-Gillingham approach with those exposed to Conventional approach (Marungko). However, the research showed that those exposed to Orton-Gillingham Approach, twelve (50%) pupils performed as outstanding while eight (33.33%) pupils were outstanding using Marungko Approach. Thus, Orton-Gillingham approach enhanced the pupils' reading skills in terms of the phonological awareness, appropriate spelling, retention and better understanding. The proposed training and seminar program should be implemented to teachers for them to be able to utilize the Orton-Gillingham approach in teaching reading.

086

## **School – Based Orientation of Deped Mandated Activities, it's Effects to The Level of Commitment Among Central School Teaching and Non –Teaching Staff; Proposed Enhancement Measures**

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**ABSTRACT.** This research was about the School – Based Orientation of Deped Mandated Activities, it's Effects to The Level of Commitment Among Central School Teaching and Non – Teaching Staff. This research was conducted at Mabini Central Elementary School for the School Year 2018 - 2019. The researcher will use Descriptive Survey Method of Research with the use of a researcher-made instrument to be referred with other questionnaire from different sources. Observation and interview techniques will also be utilized by the researcher. The participants were 19 Teaching and Non-Teaching Staff of Mabini Central Elementary School. As the teacher III/District property custodian of Mabini Central Elementary School in Mabini District, it is the desire to identify the effects of school-based orientation of DepEd mandated activities to the level of commitment of the central teaching and non – teaching staff for the school year 2018 - 2019. The greatest constraint that is expected by the researcher is the fact that some of the respondents might give inaccurate data. But through providing thorough explanation on the importance of this undertaking, this limitation might be overcome by the researcher. Time constraint is also one of the considerations of the researcher for the fact that there are lots of co-curricular activities that need to be given attention. Financial consideration might also be considered.

087

## Choose your Patty: The Sensory Characterization and Consumer Acceptance of Burger Patties with Oyster Mushroom (*Pleurotus ostreatus*) Enrichment

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**Abstract** – This experimental study aimed to determine the acceptable proportion of burger patty enriched with 25 g (Proportion A), 50 g (Proportion B) and 75 g (Proportion C) of oyster mushroom in terms of appearance, aroma, taste and texture. The level of acceptability as to appearance, aroma, taste and texture were also evaluated. The sensory characteristics were evaluated by 30 selected evaluators using a sensory evaluation sheet based in Five-point hedonic scale.

Frequency count and percentage were used as statistical tools to determine the sensory characteristics of burger patty enriched with oyster mushroom. While, arithmetic mean was used to determine the level of acceptability of burger patty.

Findings revealed that Proportion A has a very much pleasant oyster mushroom taste. On the other hand, Proportion B had a very much pleasant oyster mushroom smell and very much compact and fine texture. Lastly, Proportion C had a golden brown appearance and very much pleasant oyster mushroom smell.

**Keywords** – Burger Patty, Consumer Acceptance, Sensory Characteristics, Oyster mushroom

088

## Predictors Associated with the Curricular Performance of Student Athletes

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**Abstract.** This study was conducted to establish the potential association between predictors and curricular performance of student-athletes. To accomplish the reason for the study the descriptive research design was used. One hundred thirty-four athletes from the Province of Pampanga who competed in the Central Luzon Regional Association (CLRAA) in the School Year 2016-2017 served as respondents of the study. Results revealed that the responses of the respondents, they showed strong agreement that anxiety strongly affects their curricular performance. The sports involvement of students-athletes and its perceived effects on their curricular performance. For **physical aspect**, sixty six or 49.25% **agreed** is the poor balance diet, Seven or 5.52% **strongly disagreed** that the injury acquired from sports involvement affected their curricular performance. On the other hand, **social aspect**, Seventy four or 55.22% **agreed** is

teachers' discrimination was a factor that affects their curricular performance. While 11 or 8.20% **strongly disagreed** is the discrimination from classmate can effect on their curricular performance. Likewise, in **the emotional aspect**, seventy or 52.23% **disagreed** Failure/defeat in sports involvement may result in loss of Self-reliance. While six or 4.47% **strongly agreed** that defeats led to loss of Courage. Lastly, **mental aspect**, Fifty nine or 44.02% **agreed** that cause of anger often becomes the focus of attention, and then it leads to negative thoughts. While eleven or 8.20% which were describing **strongly agreed** is the worry.

**Keyword:** Predictors, Curricular Performance, Student Athletes

089

## Sayaw, Antique: Inside Antiqueños' Wedding Dance Ritual

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**Abstract.** Backed up by the 1987 Philippine Constitution and RA 10066, the National Commission for Culture and the Arts (NCCA) as the cultural arm of the Philippine government operates on specific mandates like preserving and integrating culture and various creative expressions as dynamic part of the national cultural mainstream among others. This intention is manifested through various forms, and one of them is folk dance documentation. This paper dealt on gathering information of Sayaw, a wedding dance ritual in Antique, Philippines specifically on its origin, the tradition and beliefs embedded in it as well as its dance characteristics. The cultural memory banking protocol of Nazarea [4] was adapted to generate and analyze the data which emanated from participants' interviews, dance presentation and artifacts. Data revealed, Sayaw with name variations Sinurog or Sinulog, is a traditional endeavor a number of Antiqueño families believed in, categorically, pervent subscription to the sanctity of marriage. Though its origin is uncertain in terms of epochal facts and figures, yet the essence of its abeyance transcends numerical quantity that indicates time and date. Sayaw is a belief that requires ancestral patronage, a determinant of blessings and curses, as well as a benchmark of antiquity and seal of distinctive identity. Sayaw encapsulates such traditional practice that is anchored with the mindset that the Divine Providence is necessary to be invoked for guidance and protection in the family life. Danced as customary celebration, Sayaw does not embody aesthetics of performance. Its rustic nature speaks of its ritual form. However, beyond its salient points, Sayaw mirrors Antiqueños' tradition, beliefs, and identity that need to be preserved for the next generation.

090

## Antioxidant Activity of Ginger (*Zingiber Officinale*), Turmeric (*Curcuma Longa*) and Shell Ginger (*Alipinia Zerumbet*)

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**Abstract** - This study was conducted to evaluate the antioxidant activity of ginger (*Zingiber officinale*), turmeric (*Curcuma longa*) and shell ginger (*Alipinia zerumbet*) by DPPH scavenging activity assay and to know if there is a significant difference in the results. In this experimental research, three herbs - ginger, turmeric and shell ginger - were analyzed for their antioxidant activity against DPPH free radicals. Five different concentrations of each ranging from 62.5 ug/ml to 1000 ug/ml were tested. Significant results were yielded especially in the 1000 ug/ml concentration where among the three, ginger had the highest percentage when it comes to inhibition against DPPH free radicals which is 89.16%, followed by shell ginger with 86.52% and lastly, by turmeric with 86.13%. Based on the statistical treatment of the results, the antioxidant activity of these three are notably high and were just slightly lower than that of ascorbic acid's 93.6% inhibition percentage. There is also a significant difference in the antioxidant activity of ginger, shell ginger and turmeric against DPPH free radicals. The findings of this study will definitely be beneficial to health-conscious consumers and will also make a good baseline database using the information derived from the results. Thus, it is highly recommended that parallel studies be conducted to maximize the potential of these herbs so they may be utilized to formulate new or enhance existing products or methods, for medicinal purposes and increase the nutritional value of various food by which these herbs may be infused with.

**Keywords** – antioxidant activity, DPPH free radicals, ginger, shell ginger, turmeric

091

## Singapore Bar Model Approach in Teaching Math VI

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**Abstract.** This experimental research was conducted to assess the effectiveness of using the Singapore Bar Model Approach in improving the Math performance of the 60 Grade VI pupils of Loboc Central Elementary School of the S.Y. 2016-2017. It also aimed to assess the acceptability level of the experimental respondents towards the Singapore Bar Model Approach in terms learning of objectives, learning outcomes, learning experiences and learning activities. This study also sought to determine the performances of the following: pretest and posttest of the experimental group taught using the Singapore Bar Model Approach and the control group using the traditional method, the significant difference of the pretest-posttest of the control group, pretest-posttest of the experimental group and the posttests of both groups. Relevant data were gathered and subjected to statistical treatment, analyzed and interpreted through the use of weighted mean and t-test. This study concluded that both the traditional method and the Singapore Bar Model approach were effective in improving the academic performances of the



respective respondents. The experimental group also indicated a positive attitude towards the use of Singapore Bar Model approach. It is recommended that the Singapore Bar Model may be used as an alternate teaching approach especially in topics where it is more appropriate.

092

## Factors That Affect Learners at Risk Of Getting Failing Grades: Proposed Remedial Measure

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**Abstract.** Key stakeholders in the Philippine educational system play a vital role in the development of young learners, It takes a village to educate a child, as being mentioned by an African proverb, therefore, development of the child needs a collaborative effort for them to achieve their fullest potential. A lot of factors need to be considered, this is the concern of the researcher, as a hopeful school principal as one of the principal passers in the recently conducted principals test This collaborative effort to identify the factors that affect learners getting failing grades would be very beneficial to the different stakeholders in the school and community as well.093\_ Implementation of pedagogical content knowledge model in mathematics learning for high schoolR Y Purwoko<sup>1</sup>, P Nugraheni<sup>1</sup>, D Instanti<sup>11</sup> Muhammadiyah University of Purworejo, IndonesiaEmail: [riawanyudi@umpwr.ac.id](mailto:riawanyudi@umpwr.ac.id)**Abstract.** The purpose of this study was to analyze creativity aspects of implementation of Pedagogical Content Knowledge (PCK) model in mathematics learning in high school. The research method used was qualitative method. Data collections used communication, interview, documentation, and test. Research was done in high school in *Purworejo* Regency. PCK model integrated student plan, learning module, and student worksheet as tool in learning mathematics. Characteristics of learning tools adapted to PCK theory containing components 1) Knowledge of Curriculum for Mathematics, 2) Knowledge of Instructional Strategies for Mathematics, 3) Knowledge of Student Understanding in Mathematics, and 4) Knowledge Assessment for Mathematics. Result showed that PCK model was able to develop students' creativity components included fluency, flexibility, elaboration, and originality. Degree of student creativity was at good level with percentage score is 80.6%. Pedagogical Content Knowledge (PCK) model applied comprehensively was capable to develop students' creative thinking skills more optimally.

093

## Implementation of Pedagogical Content Knowledge Model in Mathematics Learning For High School

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**Abstract.** The purpose of this study was to analyze creativity aspects of implementation of Pedagogical Content Knowledge (PCK) model in mathematics learning in high school. The research method used was qualitative method. Data collections used communication, interview, documentation, and test. Research was done in high school in *Purworejo* Regency. PCK model integrated student plan, learning module, and student worksheet as tool in learning mathematics. Characteristics of learning tools adapted to PCK theory containing components 1) Knowledge of Curriculum for Mathematics, 2) Knowledge of Instructional Strategies for Mathematics, 3) Knowledge of Student Understanding in Mathematics, and 4) Knowledge Assessment for Mathematics. Result showed that PCK model was able to develop students' creativity components included fluency, flexibility, elaboration, and originality. Degree of student creativity was at good level with percentage score is 80.6%. Pedagogical Content Knowledge (PCK) model applied comprehensively was capable to develop students' creative thinking skills more optimally.

094

## Improving Teacher Professionalism Toward Education Quality in Digital Era

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**Abstract.** Teachers are an important component in improving the quality of education. It can even be said that teacher is a strategic key for the development of quality education. How important role of teachers in education, so it is not surprising that the Emperor of Japan, Hirohito after the defeat of Japan from the allies asked how many teachers are still alive. It was on the teacher's shoulders that Emperor Hirohito put his trust in rebuilding Japan through education and succeeding. The method used in this paper is library research (library research). The study finds that one of the progress of education in various countries such as Japan, China, Korea, India, which later became the instrument to solve the nation's problems is through the improvement and development of professional teachers. In Indonesia the effort to improve the professionalism of teachers is done through training called Teacher Professional Training (PLPG) and Teacher Professional Education (PPG). By building professional teachers the reinforcement of developer-based and discovery-based philosophical aspects make a significant contribution to improving the quality of education in Indonesia.

**Keywords:** Professional Teachers, Education, Progress.

## Compliance and Infringement of Politeness Principle in Online Social Media Conversation

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**ABSTRACT.** Nowadays there are many speeches in online social media which tend to be motivated by hatred. Whereas the function of social media is significant to facilitate individuals communication and is expected to happen politely. For that reason, this study discussed how the language politeness in social media reviewed from pragmatic perspective in the current online social media user comment field. This study aims to describe the compliance and violation of language politeness in social media, especially online one such as Facebook, Twitter, Instagram, as well as Detik.com. This study was conducted in descriptive qualitative research method with non-interactive approach. The data were interlocutions and speeches in the online social media user comment field from Facebook, Twitter, Instagram, and Detik.com. sites which met politeness and irreverence. The data collection techniques were refer and note techniques. The data were online social media documents analyzed by content analysis method. By triangulation technique of researcher and data, it resulted comprehensive findings. Based on the data analysis result, it obtained some findings. First, compliance with language proficiency in Facebook social media, Twitter, Instagram, and Detik.com were 243 findings shared in online social media of Facebook as many as 86 findings, Twitter as many as 23 findings, Instagram as many as 15 findings, and Detik.com as many as 119 findings. Second, the violation of language politeness in online social media was as many as 228 findings, those were shared in Facebook as many as 50 findings, Twitter as many as 8 findings, Instagram as many as 14 findings, and Detik.com as many as 156 findings. Thus, it can be concluded that the most dominant form of compliance and violation in online social media is sourced from online newspaper with the total of 275 findings. It means the community is more easily affected by news stories presented in online newspapers than online social media such as Facebook, Twitter, and Instagram. Thus, it is advised that the society could wiser benefit online social media and are not easily influenced by news that lead to pros and cons.

**Keywords:** *language politeness, pragmatics, online social media*

## Integrative Learning Model Containing Local Wisdom by Using Multimedia Animation-based for Elementary School Students

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**Abstract.** The results of preliminary observations on several primary schools with increasingly advanced Information Technology (IT) technologies are (1) local culture which is increasingly eroded by the rapid development of Information Technology known as "kids era", (2) IT is increasingly requiring the model learning follows developments. Furthermore, (3) in previous English learning, the process has not been integrated (not synchronous between writing, listening, speaking and reading). The purpose of this research is to design an integrative learning model with local wisdom on elementary school students based on multimedia animation and to know the accuracy of integrative learning model implementation for elementary school students based on multimedia animation.

It was a research development with subject is elementary school students in Ngestiharjo region. Methods of data collection used observation and questionnaire. The questionnaire instrument was obtained from media and material experts. Questionnaires were addressed to IT expert and English education lecturer. Data analysis techniques used qualitative approach model.

This research has resulted in an integrative learning media with local wisdom-based multimedia animation of English grade 3 elementary school. The content of interactive media is divided into three main sections, namely semester 1, semester 2, and video lesson. Animated media is integrated between the ability of speaking, listening, reading and writing. Aspects of local wisdom are demonstrated by the content and vocabulary used in reference to local Indonesian culture. The result of the content validation by the English education material experts stated the media is very good. Media experts claim that interactive media is good and worthy of use in learning English. Video lesson can increase students' active participation in English learning.

**Key words :** learning model, integrative, multimedia, animation

## Acoustic analysis on the voice of choir singers using *Spectroid*

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**Abstract.** This study was conducted based on interdisciplinary approach, physics and vocal music knowledge, also could be used as an alternative activity to support student learning about sound wave. The aim of this study was to analyze the voices of the school choir singers using android App namely *Spectroid*. The singers are high school students of SMA Mojoagung. The result showed that 16 of 18 singers had been in the right position based on their type of voice. There are 2 singers had not been in the right position because they positioned in bass group which their voice could not reach the minimum limit of Bass frequency. The Soprano group which had the frequency range 148,6 Hz-1045,6 Hz, 6 of 8 singers could be in mezzo-soprano and 4 of them could be in Alto. The Tenor group (96,4 Hz-697,0 Hz), 1 of 2 singer could be in Baritone but both of them could not be in Bass. The Bass group (81,4 Hz – 493,8 Hz), 2 of 4 singers are true Bass but all of them could be in Baritone and 1 of them could be in tenor. All of 4 singers in Alto group (171,2 Hz-702 Hz), only positioned in Alto.

## Effect of Service Based Online Passion and Employee Performance to Employee Loyalty at PT Pegadaian Syariah Cluster Surabaya

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**Abstract.** The purpose of this research to know and explained effect of service based online passion and employee performance to employee loyalty at PT Pegadaian Syariah cluster Surabaya. This research method used kind of explanatory research with quantitative approach. All customers at PT Pegadaian Syariah Surabaya a number of 15.791 persons, with number of samples used was 99 respondents. Sampling used accidental sampling. Independent variable was service based online passion (X1), Employee performance (X2) and dependent variable was customer satisfaction (Y). Data analysis used method of multiple linear regression analysis.

Based on research result, that show service based online passion had an effect to customer satisfaction at PT Pegadaian Syariah Surabaya and employee performance had an effect to customer satisfaction at PT Pegadaian Syariah Surabaya.

**Keywords :** Service based online passion, Employee performance, Customer satisfaction

## Community Empowerment of Muarareja's Vulnerability in Implementation of Pkk Tourism Town of Tegal City

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The study was examined about community empowerment in the implementation of PKK activity programs in Muarareja Village, Tegal City. The research objective is to see how far the implementation of community empowerment in PKK activities is carrying out development. PKK activities as well as how people overcome poverty and unemployment problems through the PKK Kota Wisata activity program. The study was carried out in the Muarareja village of Tegal City. Research data on observation, interview and documentation techniques. Qualitative approach The results of the study: (1) Community empowerment in the village of Muarareja Tegal City involves all citizens, (2) Actual efforts to increase carrying capacity to promote potential and (3) Community empowerment contributes to improving economic prosperity.

**Keywords:** Activity Emporwerment PKK

## Nutgrass Response to Drought Stress in Various Types of Soil

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**Abstract.** Nutgrass (*Cyperus rotundus*) is one of dominant weeds that grows on various of cultivated fields and able to grow in various types of soil, even in limited watered soil condition. This research aims at knowing the growth and nutgrass response on drought stress in various types of soil. This research was a pot experiment which arranged in nested design and repeated three times. The first factor was soil types, which consisted of four soil types; coastal sand, alluvial, volcanic and grumusol. The second factor was drought stress, which consisted of four levels; 25% field capacity, 50% field capacity, 75% field capacity and field capacity. The observed parameters were the plants hight, root length, tubers population, leaf width, specific leaf weight, shoots roots ratio, proline content and weed biomass. The data collected were analyzed with analysis of variance at 5% significant levels. In measuring the difference among treatments, the data were analyzed with Duncan's new multiple range test (DMRT) at 5% significant levels. The results showed that the growth of nutgrass on the soil of coastal sand and grumusoil were better than those on the soil of alluvial and vulcanic, except in terms of the plant hight. Nutgrass which grows in grumusol soil has longer root and higher biomass. However, nutgrass grew in costal sand soil has greater tubers population, wider leaves and higher shoot root ratio and proline content. The widest leaves found in nutgrass which grew in the soil of coastal sand and grumusol. In addition, the thickest leaf found in volcanic soil. Nutgrass that grew at 25% field capacity could survive with the condition as follow: shorter in plant's hight and roots length,

narrower leaves, fewer tubers population, lower weed biomass and higher proline content.

**Keywords:** nutgrass weed, drought stress, soil types

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## Student Mathematical Connection Ability in Representing Multiplication at The Elementary School

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**Abstract.** The Mathematical Connection Ability is part of the thinking ability that must be possessed by a person. Therefore this ability should be customized to be applied in everyday problem solving apps. The purpose of the research is to determine the ability of mathematical connection in multiplications at 3rd grade of Nurmadani Elementary School, Pekanbaru Indonesia. The subjects consisted of 28 students (10 male and 18 female). The research uses descriptive-qualitative approach and classroom action research. Data were collected using form of activity data of teachers and student during the learning process and interview. This study consists of 2 cycles. The results showed that 80% of students had the ability to use multiplication in everyday life, and 92% of the students could represent that multiplication as a form of repeated addition.

**Keywords:** Mathematcal Connection Ability, multiplication, elementary school

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## Climate Change Literacy of Elementary School Students in Buleleng District, Bali Province, Indonesia

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**Abstract.** This study aimed to identify the level of knowledge, attitudes, and behaviour of elementary school students in Buleleng District on climate change. Data were collected with a Guttman-scale questionnaire (true-false) for the knowledge domain and Likert scale for attitude and behaviour. The domain of knowledge consists of four aspects: the basic concept aspect (20 statements), the cause (13 statements), the impact (8 statements) as well as mitigation and adaptation (10 statements) while the attitude domain with 12 statements and the behaviour of 11 statements. The survey was conducted on 153 students of fourth, fifth, and sixth grade from three different public school. The results of this study revealed that the majority of participants show moderate levels for understanding basic concepts, impacts, mitigation, and adaptation,

but poor for the causes of climate change. Overall, the majority of respondents indicated moderate levels of knowledge of climate change, whereas in attitude and behaviour were good. The results concluded that students' literacy on climate change needs to be improved primarily through teaching strategies on relevant materials in order to foster awareness of action on climate change mitigation and adaptation from an early age.

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## Light Intensity Measurement on Sun-earth System Model Using Logger Pro Light Sensor

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**Abstract.** The measurement of light on the Sun-earth system model has been done using a logger pro and light sensor. The purpose of this research is investigating the relationship between Sun declination with the Sun light intensity on variety earth model latitude. By Lambert's Cosine Law, the light intensity that fall on certain angle can be calculated. On summer solstice, the highest light intensity that was measured on earth model surface occurred on 23.5 degree north latitude. It was 129.264 candela. The highest light intensity on 23.5 degree south latitude was 125.907 candela. It was occurred on winter solstice. The light intensity on the equator reach the maximum compared to the other latitude on vernal equinox and autumn equinox. There were 115.982 and 111.121 candela, respectively.

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## Characteristics of Intuitive Thinking Students in Solve Mathematical Issue Based on Cognitive Style

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**Abstract.** This study aimed to describe the characteristics of intuitive thinking of junior high school students who have impulsive and reflexive cognitive style for solving 3D object problem based on Polya stages. This research was qualitative descriptive study. Subject method is purposive technique. Data collection used problem-solving tests, interviews, documentation, and field notes. Result showed that: (1) Student with impulsive cognitive style used intrinsic certainty for understanding problem, extrapolativeness for planning problem solving, perseverance for solving problem, and globality thinking for re-checking. (2) Student with reflexive cognitive style used intuitive thinking of self-evidence for understanding problem, extrapolativeness for planning problem solving, perseverance and implicitness for solving problem, and not use intuitive thinking for re-checking.



## Angular Velocity and Acceleration Using Logger Pro Magnetic Sensor

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**Abstract.** The Circular motion is one of physics learning topic that has number of physics parameter. There are angular velocity and angular acceleration. They can be calculated and measured. The aim of this research is to measure angular velocity and angular acceleration using loggerpro magnetic sensor on the top of the propeller by varying the speed fan. There is a magnet bar that is attached on propeller top surface. The magnetic sensor is placed on the top of it. The distance is 0,01 meter. The motion of the magnet bar follows the circular motion of propeller. Hence, circular motion can be tracked by plotting the magnetic field intensity overtime. The maximum angular velocity of speed 1, speed 2, speed 3 were 5.709 rad/s, 10.467 rad/s, and 10.467 rad/s, respectively. The maximum angular acceleration of speed 1, speed 2, speed 3 were 0.594 rad/s<sup>2</sup>, 2.492 rad/s<sup>2</sup>, and 2.492 rad/s<sup>2</sup>, respectively. The measuring of angular acceleration for each speed are obtained by value that are different. This is due to wind speed and the changed rotation that are different.

## The Increase in Child-Friendly Learning Management Towards The Formation of Character Students in SD Inclusive

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**Abstract.** The purpose of this study is to describe and analyze: a child-friendly learning planning, the implementation of a child-friendly learning, and child-friendly learning evaluation. Research methods using qualitative interpretive, to analyse and interpret the management of child-friendly learning at four primary schools in Brebes Regency inclusive with the subject of this research master class as many as 24 people. Using data collection techniques interviews, observation and documentation. The results of his research are: the planning of learning set a goal of learning tailored to the needs of children, develop a syllabus and RPP who modified to the child's condition, planning classroom management, strategy approach to learning activities based on students, and learning activities of the child-friendly procedures; implementation of learning to give motivation to students, learning to use media to suit the needs of students, applying learning methods that involve students, provide concrete examples known to students. While the value of character students formed is fair treatment, application of norms of religion, social norms and local culture, affection, and respect each other; the evaluation of the learning

by means of flexible assessment, the assessment are tailored to the conditions of the various needs of learners.

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## Community Service of Business Group at Sendangsari Village Pajangan Bantul District Yogyakarta Province

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**Abstract.** This Community Partnership Program aims to establish and develop economically independent business groups in Gupakwarak by providing solutions of problems to partners. The solutions to solve the problems of partners included methods of counseling, training, and mentoring. Methods of counseling and training covered (1) training of cultivation process (in the form of snacks), (2) training of product design utilizing Information and Communication Technology (ICT), (3) training of quality improvement/quality of cultivation (packing, taste standardization, as well as natural preservation), (4) training of determining marketing price of cultivation product, and (5) training of product marketing management by utilizing ICT through web, Facebook and Instagram, while the accompaniment method which was done included assisting PIRT setting for snack product, and mentoring of marketing partner of cultivation yields. Outcomes achieved in this PKM include aspects of services, products, and others. The service aspects are acquiring the skill and knowledge of snack processing by utilizing the cultivation (fish-based), obtaining the skills and knowledge about the quality of product (packaging, preserving natural, and standardizing flavors and forms), acquiring the skill and knowledge of product price determination, obtaining the knowledge and skill for designing product, and acquiring knowledge and skill on ICT-based promotion management. Product aspect includes snacks with cultivated based material (tilapia fish and catfish) in the form of catfishabon and fish siomay, web promotion, as well as Gupakwarak Hamletprofile.

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## The Acquisition of Japanese Numeral Quantifiers Through Song

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**Abstract.** This study aims to determine the effectiveness of audio visual form of the song in the language acquisition of the Japanese numeral quantifiers (NQ). The NQ is a phrase consisting of the cardinal number and numeral classifiers (CI) to quantity expressions. In this study, the NQ are focused on the NQ that serve to quantity expressions 3dimensional objetcs (use of CI~*ko*), objetcs for animals (use of CI~*hiki*), 1dimensional objetcs (use of CI ~*hon*), binding objetcs (use of

CI *~satsu*), and objects for the person (the use of CI *~ri/nin*). From the results of data analysis found that through the audio visual of the song can be used as an alternative in an effort to accelerate the acquisition of Japanese NQ. This is because if the traditional method only of learning will be difficult to recall one by one of the NQ, while through audio visual in the form of learner song will be more interested to repeat the material more fun every time so that will be more quickly come in into the subconscious memory.

**Keywords:** language acquisition, Japanese, numeral quantifiers (NQ), audio visual, and song

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## Development of Learning Devices: Brain Based Learning and Mathematic Critical Thinking

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**Abstract.** The low percentage of logarithms lesson only 22.36%[1]. The solution to overcome the problems experienced by these students is through a brain based learning approach that can help students to understand, think critically in solving logarithms problems. Development research is carried out using a modified 4-D model consisting of define, design, and develop. The research instruments used were validation sheets, legibility validation sheets, and student response questionnaires. Data analysis was performed on each data obtained with research instruments. The conclusion obtained is that the brain-based learning cooperative learning device in the form of good student worksheets has been obtained because the validator team states that the learning tools developed are valid, and the implementation of the trial, the device meets certain requirements. 81.23% above the minimum criteria value and 76% students experience an increase in value from the previous value. This shows that by using worksheets students can improve students' critical thinking skills.

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## The Use of Instagram as Effective Promoting Medium for Small Medium Enterprise

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**Abstract.** Marketing is one of business activities that have been done either by an individual or group in order to maintain the business' sustainability and gain the profit as the indicator of success. The indicators could be either profit or satisfaction. As the development of the marketing technology, marketing process which started with the conventional way gradually changing by started to use technology, which is the internet. Marketing process by using the internet could

reduce geographical barriers and expanding the promoting scope. One of the innovations on the internet is the appearance of social media. It has the possibility for its users to easily participate, sharing, and creating contents in writings, photos, or videos. The social media form itself is various, based on the users' contents. Instagram is one of social media that has the possibility of its users to take both photos and videos and then share it on the users' accounts.

This research aims to measure the effectiveness of using instagram as the promotion medium for Small Medium Enterprise. This research's subjects are several online-based business people who has using instagram for their business. The method used is qualitative descriptive analysis method. The indicator of effective is measured by the Small Medium Enterprise's increase of profit, based on the before and after using instagram as their medium to promote their products. The results are expected to be a guidance for those business people who wants to use instagram as their strategy in promoting.

**Keywords:** promotion, Small Medium Enterprise, internet, social media, instagram

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## Assessing Student Acceptance of Virtual Classroom in Higher Education Using The UTAUT

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**Abstract.** In the era of e-learning, assessing student acceptance of virtual classroom technology is becoming increasingly important. This paper describes findings from a study of the acceptance of virtual classroom on Telkom University students, especially in D3 Informatics Management. Students from three different class were surveyed to capture their perceptions regarding their current virtual classroom systems. The assessment framework is based on UTAUT dimensions: performance expectancy, effort expectancy, social influence and facilitating condition, which consists of 14 variables. The conclusion of the study is that the use of the virtual classroom has had accepted on their learning activity, but with different levels of acceptance. This paper provides information that will be of interest to universities that are developing e-learning.

## Research-Based Oriented Student Worksheet Development for Increasing Creative Thinking Skills in Solving and Applying Problems

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**Abstract.** This study aims to develop a research-oriented Student Worksheet based on research-based learning to improve creative thinking skills in solving and proposing problems of Statistic Mathematic. The specific objectives of this study is to describe the process of developing research-based learning-oriented teaching materials in Statistic Mathematic courses starting from the defining, the planning, and the development stage (prototype production). This research was descriptive research with quantitative approach refers to phase developed by Fenrich, (1997). Data collection techniques used were observation, test, and questionnaire distribution with closed questionnaire type. Data analysis technique was done by qualitative descriptive and qualitative analysis (mixing method). The results of the research at the defining stage indicated that the importance of developing research-oriented instruction-based teaching materials to improve creative thinking skills in solving and applying problem by percentage of 85%. At the design stage, the draft of the student worksheet, which contains the problems that must be solved and train the students to ask the problem. At the development stage obtained results that include the validity of Student Worksheet is 88% and the readability of student worksheet is 79%.

## Development of Textbook Based on E-Learning Media 'Matlab Simulation' in Numerical Analysis Courses

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**Abstract.** This study aims to develop a Numerical Analysis textbook based on e-learning media 'Matlab simulation'. Textbooks developed include the completion of calculations using Matlab and supporting applications for e-learning simulations contained in Playstore. The development stages used ADDIE (Analysis, Design, Development, Implementation and Evaluation). Validation of textbooks involved two media experts and material experts. While the limited test involved three students and field trials involving 20 Mathematics Education Study Program students in Class VI A Academic Year 2017 / 2018. The results of the study showed that (1) the assessment of media experts was 79.50% (good category), material experts amounted to 78.20% (good category), and student assessment when the trial was 78.80% (good category ); (2) understanding the concept of students increased from 65.20 (pretest) to 78.90 (posttest); (3) student responses after using textbooks based on MATLAB simulation e-learning

media showed good categories, with a mean score of 70.15 %. Based on these results, textbooks developed are appropriate for learning.

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## Cinema Kethoprak (Cineprak) as a Way to Teach The Javanese Traditional Drama Using Multimedia Technology

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**Abstract.** The focuses on this study are to describe and to explain about the use of multimedia technology on Javanese traditional drama (*kethoprak*) learning. This study was descriptive qualitative with using some cinema *kethoprak (cineprak)* shows from *kethoprak* group in Surakarta as source of data. Technique of data collection used direct observation and in-depth interview with some experts in the field. The data were then analysed by using flow model of analysis and interactive technique. The result shows that traditional drama still uses conventional way. Cinema *kethoprak (cineprak)* as one of *kethoprak* shows utilizes multimedia technology, such as projector (audio-visual), electrical sound system (audio), camera (audio-visual) and modern lighting technologies (visual-art). Some multimedia technologies can support the quality and aesthetic value of *kethoprak* show. By using multimedia technology, *kethoprak* learning become more attractive, and students can be easier to understand learning material. Furthermore, *cineprak* also can encourage student to be more creative and wiser in using some technological product in modern era.

**Keywords:** Cinema Kethoprak (Cineprak), Javanese Traditional Art, Teaching Drama, Multimedia Technology.

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## Cross-Cultural Bussiness Influence Based on Communication and Social Media to Improving Marketing Traditional Drinks *Jamu* in Surakarta

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**Abstract.** The main focus of this review is descriptive and holistic description of The role of social media in developing traditional product marketing is very important. Public interest in traditional drinks is still high today. This is evidenced by the number of traditional beverage traders in Solo, both traditional and online traders by utilizing technology. Today, social media plays an important role in marketing community products that have benefits for life. Based on data, social media has proven to have a role in popularizing traditional drinks to the wider

community. It also provides a way out in traditional beverage business businesses that are marketed across cultures. This is evidenced by the interest of people from outside Surakarta who are interested in buying traditional Javanese beverage products. Thus, advanced technology, diverse social media, and community business can develop together to build cross-cultural businesses.

**Keywords:** cross-culture bussiness, communication, social media effect

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## Modeling for Anxiety Data toward Students Achievement in Factorial Design Materials

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**Abstract.** The aims of this study is to determine various models that might occur for the relationship between anxiety and student achievement in factorial design material. At first glance this data model is linear regression with the correlation coefficient is negative. However, by using of *Curveexpert 1.4* there are some other models that are mostly non-linear that might be better models than the linier model itself. This research method utilizes the Lavenberg-Marquardt method. The order of the models generated from the best models were as follows: 1) Fit Polynomial; 2) Sinusoidal fit; 3) Quadratic Fit; 4) Rational Function; 5) MMF Model; 6) User-Defined Model; 7) Linear Fit; and 8) Logistic Model.

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## Effectiveness of H-hope Plus Kinesthetic with Virgin Coconut Oil (Vco) on Body Weight in Premature Infants

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**Background:** Prematurity complications in the first year contribute to one million children die and each year around 15 million babies are born prematurely. Prematurity is still a major health problem worldwide. Premature babies with LBW are at risk of developing growth disorders, especially body weight. One intervention that can be given is visual-tactile-kinesthetic stimulation. This stimulation is a stimulus series that provides sensory and motor experiences so that premature babies can show their appropriate growth progress.

**Objective:** to determine the effectiveness of H-HOPE plus kinesthetic with VCO on the growth of premature infants.

**Methods:** This type of experimental design study with pretest-posttest with control group design with independent variables was intervention in the form of H-HOPE plus Kinesthetic

with VCO and Kangaroo Mother Care (KMC). The samples in this study were preterm post-treatment infants at Hospital. Sampling uses probability sampling technique with random sampling. The number of samples in this study is 30 respondents with 15 people in the intervention and control groups.

**Results:** The results of giving H-Hope plus kinesthetic and VCO interventions for 14 days in increasing body weight obtained sig value of 0.001 with mean  $\pm$  SD (612.27  $\pm$  80.82).

**Conclusion:** H-Hope plus kinesthetic with VCO is more effective in increasing body weight.

**Keywords:** *H-Hope, VCO, Kinesthetic, Premature baby*

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## The Effect of Using Window Card Technique in Improving the Performance of Grade 8 Students

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**ABSTRACT.** The study was deemed further that the research would determine the effectiveness of using the window card technique in improving the performance of Grade 8 students on the basic Mathematics on integers. This study was done in 2016 in Grade 8 Students in Mathematics at Sto. Domingo Integrated School. This study was conducted to all enrolled Grade 8 students who had Mathematics classes, particularly taking up the application on integers. A pre test was given to both a control group (n=10), and an experimental group (n=183). Both groups were given normal instruction. The control group was instructed using the whole group instruction model with the teacher-proponent as the facilitator. A post test was given to both groups. The post test has yielded a remarkable difference on the result for the experimental group which proved the much effect of the introduction of instructional strategy in use of window card technique. Further research was warranted to evaluate the long-term effects on mathematics achievement among students in the use of new strategies in improving the performance of the students.

Initially, the study noted that the level of Mathematical performance of Grade 8 students was below average. To note, there was no student who was able to get high average rating in the Pre-test. With the introduction of Window Card Technique, the students assessed that they were aware of the intervention, and that the technique was of much effect to them. On other hand, the result of Post-test showed that the levels of improvement of the performance of Grade 8 students on the topic about integers showed that majority of students got the excellent marks.

Conclusively, the window card technique has significantly improved the level of performance of Grade 8 students in Mathematics particularly on integers after the use of window card technique. Majority of the students have generally accepted the new strategy of window card technique with the remarkable result on their grades after the introduction of Window Card Technique.

**Keywords:** Integers, Window Card Technique, Strategy, Intervention



## Precision Livestock Farming

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**Abstract**—The demand for food rises proportionally as population grows. To be able to achieve sustainable supply of livestock products, efficient farm management is a necessity. With the advancement in technology it also brought innovations that could be harness in order to achieve better productivity in animal production and agriculture. Precision Livestock Farming (PLF) is a budding concept of making use of smart sensors or available devices to automatically and continuously monitor and manage livestock production. With this concept, this paper introduces a integrate image processing technique for weight monitoring. This system captures pig images using camera, evaluate and estimate the weight base on the captured image. It is comprised of Pig Module, Breeding Module, Health and Medication Module, Weight Module, Data Analysis Module and Report Module to help livestock farm administrators better understand the performance and situation of the swine farm. This paper aims to improve the management in both small and big livestock raisers.

## Anadara Skin Ointment

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**Abstract.** Lime from *Anadara spp.* (Arc shells) together with the decoction of *Cassia alata* (Ringworm Bush), *Psidium guajava* (Guava), *Gliricidia sepium* (Mother of Cacao), *Moringa oleifera* (Moringa), *Tinospora rumphii* (Heavenly elixir) and *Tabernaemontana pandacajiu* (Windmill bush) were utilized in preparation of skin ointment. It was mixed with *Virgin Coconut Oil* (VCO). The finished product was compared with commercially available ones (fungal, viral and bacterial) in terms of effectivity, quality (viscosity, density and storage stability), and general consumer preference. Data analysis (One-Way ANOVA – at 0.05 level of significance) showed that the mean preference scores for the four ointments are equal. No significant distinction can be observed with regards to effectiveness of a good skin ointment. Density measurements among the treatments were also equal (One-way ANOVA – at 0.05 level of soignificance). Also, all treatments passed the viscosity test. Anadara skin ointment was also able to stand a storage period of 21 days without observable physical or chemical change. This study therefore shows that Anadara ointment is the same as the commercially available ones. The difference is basically on the use of recycle materials such as lime from animal shells and leaves of local plants.

## A Comparative Analysis of Learning Styles and Teaching Practices: its Implication on College Students' Science Anxiety

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**Abstract.** This descriptive research aimed to determine the alignment of the teachers' teaching practices to the students' learning styles and its implication on the level of anxiety in learning Science subjects. The respondents were the 7 Science Instructors and 69 Bachelor of Science in Marine Biology students of Aklan State University-College of Fisheries and Marine Sciences enrolled during the 1<sup>st</sup> semester of the S.Y. 2016-2017. The VARK Questionnaire version 7.8, Teaching Practices Inventory, and Science Anxiety Questionnaire were utilized to gather the necessary data. Mean, frequency, and percentage were used for descriptive statistics while Kruskal-Wallis Test was used for inferential statistics.

Results revealed that the predominant learning style of the 2<sup>nd</sup> year, 3<sup>rd</sup> year, and 4<sup>th</sup> year BS Marine Biology students is Kinesthetic. Furthermore, no significant difference exists in the learning styles of the students in the 3 year levels. The 2<sup>nd</sup> year and 3<sup>rd</sup> year BS Marine Biology students had High level of Science anxiety while the 4<sup>th</sup> year students had Average Science Anxiety level. Also, there is significant variation in the level of Science anxiety in the 3 year levels. Instructors in the 2<sup>nd</sup> year level frequently use Read/Write style in teaching, instructors in the 3<sup>rd</sup> year level frequently use Visual teaching styles, and instructors in the 4<sup>th</sup> year level frequently uses Visual and Kinesthetic teaching styles. There is mismatched in the learning styles and teaching practices since the instructors were frequently utilizing teaching styles on the least preferred learning styles of the students. Furthermore, High level of Science anxiety is noted on the year levels where the mismatched in the learning styles and teaching practices is very evident.

**Keywords:** Learning style, teaching practices, science anxiety

## The Effect of Ibse Integration to The K-12 Grade -9 Curriculum At Passi National High School, Passi City, Iloilo S.y. 2017-2018

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**Abstract.** This documentary educational research was conducted to perceived the effect of IBSE integration in the K-12 Grade 9- Curriculum at Passi National High School Year 2017-2018. The subjects of the study were 48 students of one section junior students'. They were taught following the K-12 instructional material utilizing Hands-on modified activities, Inquiry



Based Teaching and Learning, The 5E's lesson Plan during the 4<sup>th</sup> Quarter (Physics) and adopting the GANAG SCHEMA in the presentation of the lessons. The Grade -9 Students' received a week pre-summative review adopted a Programmed Instruction Technique. Descriptive data were taken from their Form 137-A Permanent Records in the secondary level during their three consecutive years and were triangulated (Arce, 2016). The results suggest that different interventions improved students scholastic achievement during their Grade 9-Science Curriculum.

**Key Words:** IBSE Curriculum, 5E's Lesson Plan, GANAG SCHEMA

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## Vulnerability And Resiliency of Some Coastal Schools in The Philippines

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**Abstract.** Coastal educational institutions are prone to various risks or hazards due to their geophysical location. With this, a pivotal challenge to coastal schools is to use knowledge, innovation, and education in building a culture of safety and resilience among their constituents and stakeholders. Essential to this challenge is the understanding that schools are the ideal settings for shaping durable collective values, suitable for building a culture of prevention and disaster resilience.

With this aforementioned condition, there was an aim to assess the vulnerability and resiliency of the coastal schools. Using concurrent research design, one hundred sixteen respondents were purposively selected from the four selected communities in the Philippines. The qualitative and quantitative data were generated with the use of survey, interview guide and Focus Group Discussion (FGD). Data reveal that the schools are highly vulnerable to various hazards or risks. Nevertheless, their level of socio-ecological resiliency is moderate. Crafting of climate adaptive framework was based on the substantial findings of the assessment.

**Keyword;** adaptive framework, academic resiliency, exposure, risk, vulnerability

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## Enhancing Action Research Skills and Knowledge of Science and Mathematics Teachers Through Intesified Workshop

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**Abstract.** This study was conducted to measure how effective intensified workshop to assist DepED teachers in Science and Mathematics in doing action research. The researchers joined in

the In-Service Training for Teachers in the 5<sup>th</sup> District of Iloilo. They discussed about concept and procedures on how to formulate action researches. The results showed that several of these science and mathematics teachers have produced title coming from their innovations but very few were successful. This is due to lack of interest and unambiguous understanding about action research. Furthermore, with highly committed mentors; one elementary science teachers was able to complete the action research and presented in a local science organization. However, none of the mathematics teachers were able to do any proposal due to co-curricular activities like, coaches for sports and literary events or advisers for clubs and organization given by their supervisors and principals. Thus, the findings of the study recommended that teachers with great potentials in conducting action research must be recognized, and also promote collaborative efforts among colleagues to help one another to make innovative outputs into functional products to enhance learning of below average learners.

**Keyword/s:** Enhance, Skills, knowledge, Action Research, Science and Mathematics Teachers, Mentor, Mentee

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## **School Climate and Public Secondary School Performance in the Division of Iloilo City and Passi City**

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**Abstract.** This descriptive-survey research paper aimed to determine the level of school climate and the public secondary school performance in the division of Iloilo City and Passi City. Utilized as respondents of the study were the 340 public secondary school teachers at Iloilo City and Passi City, chosen through simple random sampling. The result showed that the level of school climate were "high" in terms of working conditions and leadership, home school relationship, instructional focus, physical environment and safety. Significant difference existed in the level of school climate in the divisions in terms of working conditions and leadership, home school relationship, instructional focus, physical environment and safety. No significant difference in the level of school climate when grouped according to divisions in terms of working conditions and leadership, home school relationship, instructional focus, physical environment and safety. The administrators' performance was "very satisfactory" and the teachers' performance was "satisfactory". The school and the students' performance were "poor". No significant difference in the performance of students, teachers, administrators, and the schools in the divisions of Iloilo City and Passi City. There was no significant relationship in the level of school climate and the performance of students, teachers, administrators, and schools in the two divisions. The problems encountered by the administrators were the absenteeism of students, lack of parental involvement, and mediocre work of teachers, professional rivalries, miscommunication and overlapping of assignments. The intervention program was designed to address the problems on maintaining school climate. Thus, a training program for administrators and teachers was conceptualized to improve the leadership and managerial skills of administrators and to provide variety of teaching strategies to enhance instruction among teachers.

## Perception of Gender Inequality

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An issue which is hierarchical and a challenge that needs to be understood, interpreted, tackled to get a child ready as a 21<sup>st</sup> Century leader.

**Abstract.** Gender Inequality has a crucial impact on the thoughts of people throughout the globe in one way or the other. Physically and psychologically/mentally a woman are believed to be weaker than men

Each child has right to reach their full potential, and gender inequality acts as an obstacle, prevents its limiting what they can do and can't do. My school works for Gujarati Minority Language group. Being the head of the institute where 3 to 10 years old students are taking care of. I have come across various incidents regarding gender inequality. A strange view of parents made me take up this research – to bring both male and female child at par level.

## Industrial Technology Students Competency Level Under The Ladderized Education Program (Lep)

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**Abstract.** Every year great number of students marched for graduation under the Bachelor of Science in Industrial Technology (BSIT) Ladderized Education Program (LEP). The National Competency (NC) Assessment conducted by the Technical Education and Skills Development Authority (TESDA) is required for graduation under this program. This study aimed to evaluate the level of national competency performance of the BSIT students under the LEP for 2013-2017, specifically in automotive, electrical, electronic, food and welding technology. The national competencies taken were all on the NC II level of qualifications. The data used were the assessment results from the office of the college registrar, and instructors concerned the different areas of specialization, the testimony of the students who personally took the assessment. The data gathered were tabulated, analyzed and interpreted. Finding revealed that there were 623 students who took the assessment, 434 or 69.66% passed and were considered competent, while 189 or 30.34% were found not yet competent. Generally, the competency level of BSIT students is high, with an average passing percentage of 69.66% within the last four years.

## Programmed Practice Sheet (PPS) and Technology-enhanced Drills: Inputs to Instructional Material Development in Badminton

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**Abstract.** This study aimed at determining the effectiveness of modified programmed practice sheet (PPS) and technology-enhanced drills as instructional methods in students' basic badminton skills. Utilized as participants in the study were the 60 first year Bachelor of Science in Information Technology (BSIF) 1-A and 1-B P.E. 2 (Individual/Dual Sports) at Iloilo Science and Technology University, La Paz, Iloilo City, Philippines chosen through matched-paired sampling. The badminton skill level data were obtained using the instrument on the Modified Badminton Performance Assessment Rubric (Deckert, 2007). This instrument consists of 6 basic badminton skills to determine the students' skill level. The pre-treatment badminton skill level of the students in both modified programmed practice sheet (PPS) and technology-enhanced drills was beginner; it shifted to excellent after the treatment. The students did not differ significantly in their pre-treatment badminton skill level when taken as an entire group and when grouped according to modified programmed practice sheet (PPS) and technology-enhanced drills. The students did not differ significantly in their post-treatment badminton skill level when taken as an entire group and grouped according to modified programmed practice sheet (PPS) and technology-enhanced drills. Significant differences existed between the technology-enhanced drills and modified programmed practice sheet (PPS) pre- and post-treatment badminton skill level of the students—in favor of the post-treatment badminton skill level. Based on the results of the study, an instructional material in badminton was developed.

## Characterizing the Environmental Knowledge and Attitude of 8<sup>th</sup> Grade Students

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**Abstract.** The knowledge and attitude of people towards the environment are reflective of the society's ecological health. Thus, in many countries around the world, the curriculum for science education has already embraced the concept of environmental education. Subsequently, the internet offers a lot of materials about the protection and conservation of the environment, but only a few are contextually appropriate for teachers' and students' consumption. This study embarks on characterizing the learners before creating learning materials suitable to them. The study acknowledges the influence of such learning materials in raising an individual's accountability towards the environment. Specifically, the study probed the knowledge and

attitude of students regarding waste management. The researchers find it essential to comprehend the nature of the learners in making them responsible for their environment.

**Keywords.** Environmental knowledge and attitude • environmental education • waste management

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## **Students' Technological Skills and Performance in Advanced Statistics: Inputs to Blended Learning Package**

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**Abstract.** This study determined the technological skills, perception towards blended learning, class participation, and performance of thirty Master of Arts in Education students major in English, Social Studies, and Mathematics of Aklan State University enrolled during the Summer of SY 2016-2017. The results revealed that the graduate school students were proficient in using technology. They had advanced skills in basic computer operation and concepts, using Microsoft word, using e-mail and social networks, they also had proficient skills in using Microsoft excel and using the internet in general. However, they lack skills in using SPSS program. Students' perception towards blended learning was positive. Convenience, reduce travel time and expenses, improve use of course content, access to web resources, and management of learning skills as independent learners were the students' perceived benefits in blended learning while slow internet connections, need to exert more time and effort to meet overwhelming information and resources, and lower interaction with other students were the challenges they encountered in blended learning environment. The graduate school students' class participation was high. They were prompt in submitting their reflections, online quizzes, and laboratory activities. However, participation in online discussion was low. This may be due to the slow internet connections. Students' performance in Advanced Statistics in pretest was at the beginning level while their performance in posttest is at proficient level. The increase in the performance of the students in the pretest and the posttest is statistically significant and supported the potential of the blended learning package in bringing positive and effective learning. The blended learning package was designed and developed using the ADDIE model base on the results in analysis stage on students' technological skills, prior knowledge about statistics as a result of pretest, and experts' evaluation. The blended learning package was enhanced based on the results on students' perception towards blended learning, class participation, performance in posttest, and experts' evaluation. Experts' evaluations revealed that the initial and enhanced blended learning package was highly acceptable in terms of format and design, learning outcomes, contents, learning activities, assessment procedures, and relevance to the blended learning environment.

**Keywords:** blended learning, learning package, technological skills, advanced statistics

## Batuan (Garcinia Binucao) Fruit Preservation

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**ABSTRACT.** This experimental research aimed to determine the most acceptable Batuan (Garcinia binucao) Fruit Preservation.

Specifically, it sought to answer if there is no significant difference in the acceptability of Batuan Fruits Preserved using different methods of preservation as to appearance, aroma, taste, texture and general acceptability.

Batuan fruits were subjected into different solutions of plain water (Product A), brine solution (Product B) and light syrup solution (Product C). It was determined through organoleptic evaluation using Five-point Hedonic Scale by thirty (30) respondents at Iloilo Science and Technology University, La Paz, Iloilo City last April, 2018. The statistical tools used were the Mean, Analysis of Variance (ANOVA) tested at 0.01 level of significance and post hoc test. Product C is the most accepted product in terms of appearance, aroma, taste, texture and general acceptability as evaluated by the respondents. Findings also revealed that there is significant difference in Product A as to taste. The general result of the study revealed that there is no significant difference between three products in terms of appearance, aroma, taste, texture because it does not affect the general acceptability of the products using the three methods of preservation after post hoc test.

**Keywords:** *Batuan Fruit, preservation, water, salt, sugar*

## Youth Acumen and Preference in Green Marketing

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**Abstract.** Students are becoming more aware of environmental issues and desire to actively change into an environmental friendly lifestyle a green lifestyle. The present study is to investigate the green values, their level of awareness about environmental problems, green marketing products and practices, their preference and perception about Green Marketing among the students of Ubay National Science High School. Samples were selected through purposive sampling. The researchers retrieved 122 valid responses. A high level of awareness about Green Marketing Products and Practices with a percentage of 88.52%. The Overall Green Values of students have a composite mean of 4.06 which implies that students are concerned about protecting the environment. The results of the regression analysis reveals the view that overall green values, awareness about green products and practices and the perception regarding seriousness of marketing companies towards green marketing had a positive significant impact on consumer persuasion to buy and prefer green products over conventional products. The school administration should include Green Marketing into their curriculum and start a Green Marketing campaign in Ubay. Also start an awareness campaign about what actually means "green".



## Metacognitive Skill and Achievement in Problem Solving Heuristics in Mathematics

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**Abstract.** This study compared the metacognitive skill between public and private school students and tested association between their metacognitive skill and achievement in problem solving heuristics in mathematics. It employed descriptive and correlational research designs utilizing the metacognitive awareness inventory and achievement test in problem solving heuristics. The randomly chosen respondents included 580 male and female grade 10 students enrolled in mainstream classes among 18 schools in Tacloban City. Findings revealed that students' level of metacognitive skill in knowledge about cognition is satisfactory while very satisfactory in regulation of cognition. Meanwhile, students' metacognitive skill on knowledge about cognition and regulation of cognition were significantly related to students' achievement in problem solving heuristics in mathematics which, also statistically differed by gender. The achievement in problem solving heuristics in mathematics of private school students was significantly higher. In conclusion, gender has influenced in the achievement of problem solving heuristics in mathematics and was also affected the type of school they were enrolled.

**Keywords:** Metacognitive skill; heuristics; problem solving achievement

## Art Appreciation

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**Abstract:** Art is a very subjective form of expression. Whatever is beautiful for one person may not be liked by other, it is also a powerful tool for communication and a medium that expresses and explores more than words. Art expression is a way to visually communicate thoughts and feelings that are painful to put into words. Hence it is not correct to classify art into good or bad. Art therapy is used in a wide variety of settings with children, adults, families, and groups. It may be used as an adjunct to treatment, where drawing activities and other expressive media are helpful in the assessment and treatment of people of all ages. A client's feelings and experiences are transformed into concrete and tangible images, allowing both the client and the therapist to obtain a fresh view of problems, conflicts, potentials, and directions. While other forms of therapies are effective, art therapy is increasingly being used by therapists to help individuals create meaning and achieve insight, find relief from emotions, conflicts and achieve an increased sense of well being. Art expression helps people to quickly communicate relevant issues and problems, thus expediting assessment and intervention. Many professionals are using art expression for therapy. Art therapy is rapidly becoming an intervention of choice with a variety of disorders.

## ***Rhythmic Drills in Students' Dance Steps Performance***

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**Abstract.** This study aimed at determining the effectiveness of rhythmic drills in enhancing students' folk dance steps performance in two rhythmic categories— and signatures. Utilized as participants of the study were the 30 second year Education students (BEED and BSED) taking PE 3 (Rhythmic Activities - Philippine Folk Dances) at Iloilo Science and Technology University, La Paz, Iloilo City, Philippines. The folk dance steps performance data were obtained using the instrument on the Modified Rubric for Folk Dance Steps adapted from ebookbrowse.com. The pre-intervention folk dance steps performance of the students in and signatures were satisfactory; it shifted to excellent after the intervention. The students differed significantly in their pre-intervention folk dance steps performance in and signatures when classified according to gender—in favor of the female students. The students differed significantly in their post-intervention folk dance steps performance in and signatures when classified according to gender—in favor of the female students. Significant differences existed between and time signatures pre- and post-intervention folk dance steps performance of the students—in favor of the time signature. Significant differences existed between the students' pre- and post-intervention folk dance steps performance in and signatures—in favor of the post intervention folk dance steps performance.

## **Embracing the K-12 Curriculum: Accounts of Philippine Teachers and Students**

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**Abstract.** The Department of Education of the Philippines has implemented the K-12 Curriculum to both elementary and high school levels of Basic Education starting the school year 2012-2013. Thus, we can infer that the current curriculum is still in its infancy stage. Along with this stage is the dynamic change in the perceptions, reactions, and realizations of different stakeholders towards the new curriculum. In this facet, the study has examined various accounts of inservice and preservice teachers and students to gain understanding on how they approach the new educational system.

**Keywords.** K-12 curriculum • teacher belief • inservice and preservice teachers

## **Preparedness, Response, and Mitigation in Disaster Prone Areas: Basis for the Development of Community Based Learning Materials**

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**Abstract:** This mixed method study was conducted to examine the preparedness, response, and mitigation of community folks, students, and teachers and to develop supplementary learning materials in natural calamities. It utilized researcher-made assessment tools, focus group discussions (FGD's) and interview schedule guide to extrapolate the needed themes. Descriptive statistics were used to determine the preparedness, response, and mitigation of students and teachers. The local funds of knowledge of the community folks generated about their local hazards were attributed to human activities and behavior, natural phenomenon, cultural beliefs, and mere translation that greatly influenced by their way of coping and survival before, during and after disaster strikes. Topics in terms of preparedness, response and mitigation of flood, storm surge, tornado, El Nino/La Nina, and landslide had moderate level of knowledge while in the community they have insufficient awareness and knowledge about disaster practices, lack of scientific knowledge about their local hazards, need for emergency plans, emergency kits, and insufficient disaster information materials. These results serve as the gaps/barriers/needs for developing supplementary community-based learning materials in natural calamities for senior high school Disaster Readiness and Risk Reduction core subject. Based on the results of the modules' evaluation, the students had a high rating as well as the teachers on the usability of the modules. Therefore, the researcher highly recommended that use of the modules by Grade 12 students and Senior High School teachers who teach DRR and serve as a reference or supplementary learning material guide.

## **Teachers' Awareness and Students' Perspective Towards Technology- Enhanced Learning Tools in Science**

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In this study, researchers assessed teachers' awareness and students' perspective towards the application of TEL in giving classroom activities and assessments in Science subjects. The researchers used a descriptive-correlational type of research, having 7 secondary schools in the Division of Negros Occidental offering special program in Science, Technology, and Engineering. The respondents consist of 48 teachers and 329 STE students. After the analysis of data the researchers found out that (1) The level awareness towards TEL tools of the teachers when grouped as a whole was "slightly aware", (2) The level of perspective of students towards utilization of TEL tools when grouped as a whole was "Students find TEL to be useful often"

and, (3) There is no significant relationship between the students' perspective and teachers' awareness towards TEL tools. As for recommendations, the researchers encourage more external support where finances for training/seminars/workshops are concerned to alleviate the teachers' low awareness level towards TEL. Capability building and other activities may also be integrated into the regular in-service training of the seven STE schools of the Division of Negros Occidental.

**Keywords:** Science, TEL (Technology-Enhanced Learning), descriptive-correlational, STE (Science, Technology, and Engineering), Negros Occidental, Philippines

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## Ecological Justice from the Perspectives of Moulders of Society

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**Abstract.** Ecological justice (Ecojustice) is an environmental concept which is new and unpopular. However, this should be known, embraced, and practiced among humans and non-humans. In order that this concept be effectively and properly disseminated to the people in the community, the researcher has chosen three groups, known to be the moulders of society, to do the task. They are the teachers, municipal officials, and media practitioners. Teachers can nurture their pupils or students at the very early time about ecojustice education. Municipal officials can promulgate or enact ordinances and conduct information campaigns pertaining to ecojustice. Media practitioners can inform persistently their stakeholders about ecojustice principles. These groups have significant impacts to the community and expected to champion the cause of ecojustice. The researcher conducted this project in order to find out the levels of knowledge about ecojustice among teachers, municipal officials, and media practitioners in selected towns in Iloilo during the fiscal year 2015. Close-ended questionnaires were administered, interviews were conducted to provide additional information, and observations among thirty (30) teachers, thirty (30) municipal officials, and thirty (30) media practitioners. Qualitative data were analyzed using the Statistical Package for the Social Sciences. Results revealed that there is a "high" level of knowledge among teachers, "high" level of knowledge among municipal officials, and "low" level of knowledge among media practitioners. There is no significant difference in the level of knowledge when teachers were classified according to sex but with significant difference in the level of knowledge when they were classified according to educational qualification. There is no significant difference in the level of knowledge when the municipal officials and media practitioners were classified according to sex and educational qualification.

**Keywords:** ecological justice, moulders, teachers, municipal officials, media practitioners.

## Technological Pedagogical Content Knowledge of Mathematics Teachers: Basis for the Development of Grade 10 Geometry Module

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**Abstract.** This paper describes and assessed the level of technological pedagogical content knowledge (TPACK) of mathematics teachers including pre-service teachers (PSTs) and mathematics teacher educators (MTEs). Phase one of the study utilized a TPACK survey instrument. It also included questions regarding on what technologies that might be used by the mathematics teacher educators in their mathematics classes, frequency of use, and reason(s) for using those technologies. The research instrument went validation and was reliability-tested with a Cronbach's alpha of 0.977 which suggested that the items had relatively high internal consistency. The results in Phase one were taken as bases for developing a TPACK – based teacher's module in Grade 10 Mathematics. Based from the results of the module's evaluation, the students had a high rating and also the teachers had a high rating on the usability and applicability of the module demonstrating TPACK

## Indonesian Stock Market Capitalization Model on Syariah Share Pricing in Syariah Indonesian Index

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**Abstract.** The ability to read, analyze data and execute the decision by the agents of Syariah economic market becomes something that is possible to happen. This research aims to help agents, and those are how to read the data, analyze and to model the data by providing the perspectives regarding the stock pricing in the future. The research method being employed was Autoregressive Integrated Moving Average (ARIMA) which has steps of data plotting, transforming, estimating the model and forecasting. The results of this research found that ARIMA (1,1,0) is the best model of Syariah stock pricing on Indonesian Syariah Stock Indexing (ISSI). The test of model reliability employs RMSE, AIC, BIC/SBC which is resulted in the fair competitive suitable test to the employed model.

**Keywords:** AIC, ARIMA, BIC/SBC, Indonesian Syariah Stock Indexing.

## A History of Wellness Counseling

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**ABSTRACT.** History is an example for human life, because history teaches values and norms that can be used as guidelines for human life. That said, history is important because people who don't know history are doomed to repeat past mistakes. History is considered to provide learning material. But in reality, people can read a lot of history books but don't take a lesson from them. Wellness counseling has a historical trajectory. Knowing the history will be very useful for the developmental of science and practices in wellness counseling. Starting from the time of the Greek philosophers, Jews and Christians, the period of modern psychologists, periods of spiritual and religious development, and the times of the development of other scientific disciplines, all can understand where the position still opens space for research and development. This is the importance of knowing the developmental history of wellness counseling.

**Keyword:** Wellness counseling, wellness, wellness counseling history

## Development of Mathematics Module Based on M-APOS Learning Model to Improve Students' Mathematical Problem Solving Ability

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**Abstract.** This research aimed to develop mathematic module based on M-APOS learning model to improving students mathematical problem solving abilities grade VII. This research used Research and Development (RnD) method. The development model used is Analysis, Design, Development, Implementation, Evaluation (ADDIE). Data collection techniques include observation techniques, questionnaires and math problem solving skills tests. The result of the research that the development of a mathematical module is based on the M-APOS learning model to improve mathematical problem solving abilities in the quadrilateral material of class VII of Junior High School by fulfilling valid, practical and effective criteria.

**Keywords:** *Development Module; M-APOS learning model; Mathematical Problem Solving Abilities*

## An Analysis of Regional Financial Management Information System (Simda) in Improving The Quality of Financial Statements in Jombang

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**Abstract.** This study aims is to know the implementation of Regional Management Information System (SIMDA) in improving the Quality of Financial Statements at the Office PPKAD Jombang regency. This research includes descriptive qualitative research that is the technique of analysis in the form of describe or reveal the characteristics of variables that become the focus of the researcher is to disclose matters relating in Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements at the Office of PPKAD Jombang regency. The results of the research indicate that the quality of information generated from the implementation of SIMDA Finance, among others 1) is timely, 2) the accuracy of data generated from data processing on the system reliable and 3) relevant, the system works automatically by classifying transactions according to their respective types. Each and every parts of the system are interconnected with each other. The suggestions in this study For the Office of Revenue, Financial Management and Regional Assets (DPPKAD) Jombang regency need to pay attention to the financial accounting system used, both in understanding in its use or in knowing the standard accounting pulse of government so that in processing financial data can produce quality financial reports

**Keywords:** The Regional Financial Management Information System (SIMDA) and Quality of Financial Statement

## The Effect of Characteristics of Entrepreneur, Social Support, Product Innovations on Business Trade Development in Diy Giwangan Market

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**ABSTRACT.** This study aims to determine the influence of characteristic of entrepreneur, social support, product innovation, on the development of business traders in the DIY Giwangan Market.

Of the responndents were traders in Giwangan market as many as 100 traders. Technique sampling used is stratified proportional random sampling. The methods of data analysis used is multiple regression analysis.

The results showed that the characteristic of entrepreneurship, product innovation partially does not affect the development of business. While social support is partially proven to influence

business development. characteristic of entrepreneurship, social support, product innovation simultaneously affect the development of business.

**Keyword:** characteristic of entrepreneur, social support, product innovation, the development of business.

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## Design and Implementation of CNC (Computer Numerical Control) Based Automatic Stamp Batik Machine Program with Automatic Gripper Using Mach 3

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**Abstract.** Batik is a painting or drawing on mori fabric that are made with canting tools. In subsequent developments to speed up the process, stamp batik is used. Indonesian batik, as a whole of techniques, technology, and the development of related motifs and cultures, by the United Nations Educational, Scientific and Cultural Organization (UNESCO) has been designated as a Humanitarian Heritage for Oral and Non-Cultural Culture (Masterpiece of the Oral and Intangible Heritage of Humanity) on October 2, 2009. CNC (Computer Numerical Control) based automatic stamp batik machine have been developed. This machine uses a manual batik stamper in the batik stamp (tool). The problem that arises in the use of manual chucking on this automatic stamp batik machine is the amount of time needed in the replacement and setting of the batik stamp. The design of an CNC based automatic batik machine with automatic gripper have been developed. This automatic gripper combined with the CNC based automatic stamp batik machine is programmed using a combination of G-Code for the CNC and ladder diagram for the PLC (Programmable Logic Control). This paper will discuss the design and implementation of the G-Code on the CNC machine using Mach 3.

**Keywords :** CNC Based Automatic Stamp Batik Machine, G-Code, Mach 3,

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## An analysis of Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements in Jombang

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**Abstract.** This study aims is to know the implementation of Regional Management Information System (SIMDA) in improving the Quality of Financial Statements at the Office



PPKAD Jombang regency. This research includes descriptive qualitative research that is the technique of analysis in the form of describe or reveal the characteristics of variables that become the focus of the researcher is to disclose matters relating in Regional Financial Management Information System (SIMDA) in improving the Quality of Financial Statements at the Office of PPKAD Jombang regency. The results of the research indicate that the quality of information generated from the implementation of SIMDA Finance, among others 1) is timely, 2) the accuracy of data generated from data processing on the system reliable and 3) relevant, the system works automatically by classifying transactions according to their respective types. Each and every parts of the system are interconnected with each other. The suggestions in this study For the Office of Revenue, Financial Management and Regional Assets (DPPKAD) Jombang regency need to pay attention to the financial accounting system used, both in understanding in its use or in knowing the standard accounting pulse of government so that in processing financial data can produce quality financial reports

**Keywords:** The Regional Financial Management Information System (SIMDA) and Quality of Financial Statement

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## **Generating Fuzzy Interval Data and its Application to Find The Relation Between Math Anxiety With Self Efficacy Using Fuzzy Correlations Analysis**

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**Abstract.** In this article, adding a dimension that has not yet been explored in published literature, we investigate the process of generating fuzzy interval data using a crisp data, applying the process to the students' anxiety and self-efficacy crisp data in learning mathematics, and determining the two variable correlations using Cheng and Yang fuzzy correlations. We take Fuzzy correlation developed by Cheng and Yang because of being easy to understand, and its development adopts the formula of Pearson correlation. The data used are fuzzy interval data and trapezoid fuzzy. In this case, the crisp data taken using traditional questionnaires cannot be employed. The findings of this research reveal that (1) the crisp data fuzzification process to be interval fuzzy provides a new alternative in obtaining fuzzy interval data; (2) fuzzy correlations using fuzzification results provide the conception that the anxiety has a negative correlation at a moderate effect level. The correlation coefficient shows the same conclusions with Pearson correlation and fuzzy correlation using original fuzzy data obtained from data collection.

**Keywords :** Fuzzy Interval Data, Crisp Data, Fuzzy Correlations

## The Implementation of Ips Education at Higher School (Case study at SMA Negeri Arjasa and Madrasah Aliyah Negeri 2 Jember)

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**ABSTRACT.** The purpose of this study is to analyze the implementation of IPS educational learning in some high schools in Jember city related to the learning policy of social studies IPS integrated and the implementation of learning IPS education using e-learning or internet-based. The research method used is qualitative approach. The results revealed that all the schools studied were using the Internet as an IPS learning medium. Some of the studied schools are already using e-learning as a learning model. But the learning of IPS education in all schools is not done integratively. IPS Education Learning is still separate according to their respective fields, economics, geography, sociology, history and PPkn.

**Keywords:** IPS education, e-learning, internet, integration

## Urgensi Identitas Diri Bagi Mahasiswa

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**ABSTRAK.** Identitas diri menjadi tolak ukur mahasiswa dalam berpikir, merasa dan berperilaku tentang dirinya dan menentukan cara beradaptasi dengan lingkungan. Melihat fenomena mahasiswa yang mengalami *identity confused* ditandai dengan berbagai indikator yang mengarah pada maladaptif, maka mahasiswa tingkat pertama perlu memahami arti penting identitas diri.

**Kata kunci :** Identitas Diri

## Character Learning in Children: Pattern of Introduction Outstanding in Building Children's Personal Process

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**ABSTRACT.** Basically the process of growing and developing personality or character in yourself someone is influenced by parenting in the family. Parenting forms the character through how we solve problems, how we get along, how we deal with life. Character learning is not just teaching what is right and what is wrong. Parenting in the family more instills habits about

which things are good sothe. child understands and understands (cognitive) about what is right and wrong, able to feel(affective), good value and usually do it (psychomotor). Parenting in the family influences the process of growth and development of the personality on the self of a child. Learning the character in children puts more emphasis on continuous habits and continuous practice and practice. Keywords: Parenting, Character, Children.

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## **The Establishment of Youth - in - School Council to Prevent Students from Leaving School**

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**ABSTRACT:** "It takes a village to raise a child", according to one Chinese Proverb. In the Philippines, where the school leaver rate has been increasing for the last several years, the need for a more active involvement of the parents, community, private institutions and police force alongside the school has never been more crucial than today. P. Bernardo High School, home to its 800 students, has 15% of its enrollees leaving the school by the end of the year. This is attributed to a variety of factors that entail the consolidated cooperation of the concerned stakeholders to address. The study aims to lower the number by half on its year of implementation with . 30% of the school leavers from the previous years were surveyed to collect data needed. Parents were required to be more engaged in the education of their child. Barangay officers were at hand to locate parents who do not respond to school notices, and to ensure that children are not employed as prescribed by law. The police force assisted in the monitoring of computer shops that have proven to be deterrent in the effective learning of the students when they step out of the school; likewise an increased school visit by police officers averts any attempt to form gangs to use or sell drugs, or simply commit violence in the school which may result to students leaving out of fear. A private company has offered a source of income for financially challenged students. The dramatic result of the study is better than expected.

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## **My Dragon Fruit Skin, Color is Seen**

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**ABSTRACT:** This paper demonstrated a simple colorful activity that unlocked the child's curiosity on how a colored paper is made and where its color came from. Since the child had already a concept of colors during her preschool years, performing a simple activity or experiment

in obtaining natural pigment from plant parts gave the child additional concept about colors. It focused on the ability of the dragon fruit skin extract to act as a natural color to a paper, thus an improvised colored paper or filter paper was made. To make the natural color, the researchers (mom/teacher and child) collected and extracted by boiling the dragon fruit skin. The extracted solution was cooled and kept on a refrigerator for a while. The upcoming kid innovator (child) as assisted by mother-teacher then improvised a colored paper by dipping the paper into the extract of dragon fruit skin. Two types of paper were used: a bond paper and a filter paper. Pieces of clean bond paper and filter paper were soaked into the extract solution, air dried, and set aside for comparison. It was observed by the child that an ordinary bond paper did not absorbed much of the color of the dragon fruit skin extract; while the filter paper absorbed the color of the extract. Though the two types of paper was dyed with color purple or pink, it was concluded by the child that filter paper is better than an ordinary paper. The colored papers out of dragon fruit skin extract were kept for art purposes and science presentation. It is further recommended by the mother-teacher to conduct more study, activity or experiment on the natural color produced by the dragon fruit.

**Keywords:** dragon fruit skin, extracts, pigment, colored paper, filter paper, bond paper

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## **Organizational Commitment and 21st Century Skills Among Teachers of Caraga South District Division of Davao Oriental**

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**ABSTRACT:** This study was conducted to determine the relationship of organizational commitment and 21st century skills among teachers of Caraga South District, Division of Davao Oriental. Descriptive and descriptive correlation research was utilized in this study. Data were gathered from 100 public teachers of Caraga South District, Division of Davao Oriental. Moreover, sets of adapted survey questionnaire were used as instruments to obtain information from the respondents. Mean was used to find the level of organizational commitment and level of 21st century skills among respondents. Person product moment correlation was used to find significance of the relationship among the independent variables and dependent variables. Multiple regression was used to find the domain that best influence 21st century skills. The findings revealed that the over-all mean of the level of organizational commitment of teachers of Caraga South District in organizational commitment and 21st century skills indicator was high. On the other hand, the affective, continuance, and normative organizational commitment among teachers were highly significant to the 21st century skills of teachers. Results showed that normative domain best influence the 21st century skill. Further, there was a significant relationship between organizational commitment and 21st century skills of teachers.

**Keywords:** Education; Organizational Commitment; 21ST Century Skills; Teachers; Descriptive Correlation; Philippines

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## **A Causal Model on Personal Attributes' Influence to Secondary School Teachers' Sense of Efficacy**

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**ABSTRACT:** This study was conducted to determine the influence of the level of secondary teachers' sense of efficacy and teachers' personal attributes. It specifically aimed to determine the relationship between teachers' sense of efficacy; teacher's personal attributes; extent of teacher's sense of efficacy and teacher's personal attributes; and the best fit model of influence of teacher's sense of efficacy and teacher's personal attributes using path analysis. A total of 135 secondary school teachers in Tarragona National High School, Tarragona National High School-Extension Campuses, and Manay High School teachers took part as respondents in the study. The sampling technique used was complete enumeration. An adopted questionnaire was used to gather data from teachers. From the result, teachers revealed high level of sense of efficacy in terms of student's engagement, instructional strategies and classroom management as well as the teachers' personal attributes in terms of innovativeness, empathy, self-orientedness, openness and genuineness. In the test of relationship between the two variables in the study, results showed that the teachers' sense of efficacy and teachers' personal attributes had an overall strong significant relationship. The measure of strength of relationship between personal attributes and sense of efficacy suggested that when personal attributes are often practiced in teaching, there is a high level of sense of efficacy. Likewise, results revealed that the sample size of respondent used in the study attained best fitting model.

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## **DNA Extraction and Characterization of Escherichia Coli (ATCC) Using Different Liquid Detergents as Surfactants**

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**ABSTRACT:** This study aimed to determine the potentiality of DNA extraction and characterization of Escherichia coli using different liquid detergents as surfactants thru experimental design using complete randomized technique. Specifically this study aimed to prove if bacterial DNA can be extracted from Escherichia coli strain AT22 using various liquid detergents; determine the significant difference in the rate of extraction; clarity of supernatant extracted (in seconds) and if treatments significantly differ in the absorbance test of DNA molecules extracted using Spectrophotometric DNA analysis. Results revealed that in terms of rate of extraction the fastest to extract DNA is Treatment D-Sodium Dodecyl Sulfate with a mean of 14.7 seconds, Treatment A: Ariel detergent - 15.0 seconds, Treatment C: Tide detergent

- 17.0 seconds, and lastly, Treatment B - Surf detergent with a mean of 18.7 seconds. Treatment D with SDS resulted to a very clear supernatant (4.0) while different treatments have other precipitates rather than DNA molecules. The results in Table 5 showed characterization of DNA purity under spectrophotometric analysis. Generally, 1.8-2.0 ratio indicated good quality DNA, values above and below it indicate the presence of contaminants (Sabinay, 2017). Having a result of 0.055 at 0.5% significance level, reveal that the treatments have the same efficiency as surfactants and DNA extracting agents in terms of absorbance ratio. The researcher would like to encourage teachers to use this method to enable Biology students to visualize DNA in classroom settings using plant and animal samples that would bring about biotechnological development within the community.

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## The Environmental Kuznets Curve: as it Appears in the Rice Sector of The Philippines

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**ABSTRACT:** Abstract: Proponents of the EKC hypothesis say that economic growth brings both improving and worsening environmental performance at different phases of the development process. At low-income level, the environmental impact per dollar GDP increases with increasing GDP per capita, while at high income it declines. Nobel Prize winner Kenneth Arrow and a few critics more conceded the validity of the hypothesis explaining that this has to be valid only for pollutants involving local short-term costs.

Following such framework, variables on population, land area used for rice production, temperature, average rainfall and amount of particulates in the atmosphere are regressed to find each individual and collective impact to the country's rice production trend from 1991-2004. Results support the Environmental Kuznets Curve hypothesis showing that rice production increased over time as rainfall and temperature accelerate but reversed its direction as these factors escalate excessively.

**Keywords:** Inverted U Hypothesis, Environmental Kuznets Curve, Rice Production, and Philippines.

## Environmental Literacy of 8<sup>th</sup> Grade Students in The Philippines

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The environmental education has been integrated into school curriculum as early as 1977. After four decades of implementation a study was made to assess the current environmental literacy among 8<sup>th</sup> grade students in city and province of Iloilo, Philippines. The descriptive results showed that there was high level of environmental literacy among respondents in their ecological knowledge, verbal commitment, actual commitment, environmental sensitivity and general environmental feelings as indicators of environmental literacy. Furthermore, the inferential data revealed that profile such as sex and school curriculum were correlated with environmental sensitivity, while actual commitment was associated with residence location and sex. Additionally, school type was related to environmental feelings. Likewise, indicators such as ecological knowledge, verbal commitment and general environmental feelings were examined to have a significant relationship with academic performance in science. The results further implied that there was moderate degree of correlation, very low and inverses low degree of correlation among this indicators.

**Keyword:** Environment, Literacy, Eight Grade

## The Internationalization Program of Iloilo Science and Technology University, Lapaz, Iloilo City, Philippines

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**ABSTRACT :** With fast changing technology and with rapid change of change itself, do teachers able to adapt, absorb, update with what is new? The 4th industrial revolution poses a challenge on what skills are now required in the next wave of workers and in the next level of development. Are there new ways to retool, to re-skill to expose and re-orient teachers to the demands of technological progress? To address is to be in constant studying so as to avoid intellectual and academic shocks as development engulf societies. This is acquired via research, collaboration, training and doing working papers for policy implementation. The emergence of the generation z that characterizes a generation born with technological age and global multiculturalism requires a different z dimension of teaching where information is more complex, contemporary, sometimes opposing, and sometimes rewarding. The use of technology has been found efficient in transmitting new knowledge, discoveries, changes in paradigms and thinking frameworks. Internationalization becomes a craze for better understanding of the rest of the

world. Thus, this piece of inquiry describes the internalization engagement activities of ISAT University. It portrays how this program has generated mutual benefits between the grantee and the university. Revelations of respondents show that despite slow absorption of internationalization, none of the activities have been found detrimental to the growth of both the grantee and the university.

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## Development of Geometry Modules Anchored on the Conceptualization and Contextualization Skills of Pre-Service Mathematics Teachers

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**Abstract:** Teacher education training entails learning the content knowledge on what to teach and learning the pedagogical knowledge on how to teach. This study investigated the abilities of pre-service mathematics teachers in concept formation and contextualization of instruction in relation to their communication, reasoning and inquiry skills, and content knowledge in geometry. The study employed the ADDIE framework with assessment and analysis of skills of 114 randomly selected pre-service mathematics teachers in Panay Island through researcher-made tests, design and development, implementation and evaluation of learning modules. Results show that the pre-service mathematics teachers' content knowledge, communication, reasoning and inquiry skills, and conceptualization and contextualization skills were inadequately developed. Both the conceptualization and contextualization skills of the teachers are influenced by their content knowledge, ability to communicate mathematically, use reasoning techniques and perform mathematical inquiry. The identification of learning gaps and barriers in knowledge and skills provided inputs to module development. Evaluation by 10 mathematics educators indicated that the modules met the standards for instructional materials. Pre-service mathematics teachers assessed the learning modules to be effective in improving knowledge and skills on conceptualization and contextualization and in facilitating deeper understanding of the concepts being studied as they were engaged in collaborative, inquiry-based, and contextualized learning activities. As the evaluation of the modules was constrained in terms of their feasibility to be utilized as instructional materials to facilitate the development of conceptualization and contextualization skills of pre-service mathematics teachers, it is recommended that the efficacy of the learning modules in enhancing these skills be quantitatively investigated employing experimental research designs.



## Greening Program in Higher Education Institution

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**Abstract:** In recent years, the world experienced many environmental problems like pollution, drastic climate change, and extreme disturbances. Pollution caused by the emerging industries, factories and numerous vehicles. Drastic climate change, like typhoon “Haiyan” caused huge damages in life of humans and animals, in infrastructure and housing cost more than billions of pesos (Del Rosario, 2013). The insufficient supply of water and electricity, the rampant black outs, and so on. The landslide in Southern Leyte caused severe damage in life, properties, crops and buildings (DENR, 2015). Hurricane Katrina devastated the Gulf Coast, New Orleans, Gulf of Mexico created much environmental injustice, with estimated damages amounting to 2005 billion of dollars (Driesen, 2005). These environmental problems and issues were associated with human behaviour, insufficient knowledge and awareness about greening activities. Today the environment is racing towards the tipping point at which we have done permanent irreversible damage to the planet earth. So there is an in dire need to ascertain the implementation of greening program in Higher Education Institution (HEI) as to greening the campus, greening the curriculum, greening research, greening the community and greening the culture. Findings revealed that despite of the high degree of implementation of greening program in HEI, there were noticeable challenges encountered in the implementation. This will be the turning point of the researchers to introduce the framework in greening program in Higher Education Institution.

**Key words:** greening, environment, curriculum, research, culture, community

## Modified Lab Rotation Model: A Blended E- Learning Approach to Improve Student’s Conceptual Understanding of English Verb Tense and Aspect

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**ABSTRACT:** Abstract. In language Education, verb tense and aspect is one of the most difficult lesson in elementary grade. For the past three years, S.Y. 2015- 2016, 2016-2017 and 2017-2018, English verb tense and aspect is consistently included in the least mastered skills topic in Grade Five English. This study aimed at investigating the use of Modified Lab Rotation Model in improving the conceptual understanding of English Verb tense and Aspect. This model is based on the concept of Blended E-Learning Approach, an integration of traditional “chalk-talk” and online learning in order to provide educational opportunities that maximize the benefits

of each mode of delivery and thus effectively facilitate student learning. This paper offers a comparative analysis of students' conceptual understanding and achievement in the Blended E- Learning Approach and traditional classrooms. A quasi - experimental design, utilizing quantitative and qualitative methods of research was used in this study. The results revealed significant improvements in the language discourse and achievement of students from both groups. It also showed that students who used the Modified Lab Rotation Model were more likely to contribute higher discerning ideas during class discussion. However, further analysis indicated that the Modified Lab Rotation Model is not necessarily superior over the traditional "Chalk-talk" approach.

**Keywords:** Blended E-Learning, chalk-talk method, conceptual understanding, Modified Lab Rotation Approach  
Scope of Abstract: Language Education/ Language & Technology

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## **Needs Assessment Survey of Barangay Nabitasan, La Paz, Iloilo City: A Basis for Extension Services of ISATU**

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**ABSTRACT:** The Iloilo Science and Technology University (ISATU) Extension Services Division is offering skills training and seminars to various communities as part of their community extension services. Barangay Nabitasan, La Paz, Iloilo City is one of the target communities. A needs assessment survey was done in July 2017 to determine what skills training and seminars are relevant to the community. A survey questionnaire was formulated by ISATU Extension Services Division to collect data on individual and family characteristics of the respondents as well as sociopolitical characteristics of the barangay. Questionnaires were handed out to a convenient sample of 30 respondents. Incompletely filled questionnaires were handed back for completion last July 2017. In this convenient sample of predominantly married females, Cooking is the most desired relevant skills training (23 or 77% of the total respondents) and seminars on Parent Effectiveness, and Disaster Preparedness (14 or 47% each of the total respondents). . Other desired skills training consist of Basic Sewing which includes making of pot holders, pillows, shorts and many more (37%); Baking (27%); Food Preservation (23%); Manicure/Pedicure, Handicraft (Key Holders, Souvenir Items, etc.), Dressmaking/Tailoring, and Art Workshop (17% each); Computer Literacy (13%); Haircutting and Perming, Fresh Flower Arrangement, and Refrigeration/Air Conditioning (with 10% each); Mural Painting, Landscaping, Welding/Fabrication, and Automotive Electricity (7% each) Engine tune-up/ Lighting System, and Overhauling (3% each). of the total respondents. Other desired seminars are Food and Safety (43%), Family Planning (37%), Marriage Encounter (20%), and Gender Issues (13%). Based on the data collected, Cooking is the most appropriate skills training program to be implemented in Brgy. Nabitasan and seminars on Parent Effectiveness, and Disaster Preparedness were preferred. However, it is recommended that another survey should be done to get a more representative sample of the community, i.e. 50% females and 50% males may be selected randomly.

## Readiness of Grade 7 English Teachers

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**ABSTRACT:** This study assessed the readiness of Grade 7 English Teachers in the First Congressional District of Cagayan, during the School Year 2012-2013. Data were elicited from 31 English Teachers by using a questionnaire, supplemented by the qualitative data obtained from an interview. Simple Descriptive Statistics and Pearson Product Moment Correlation were used in the analysis of data.. It is also remarkable that the teachers are very much prepared as to the extent of their readiness in teaching the content areas of Grade 7 English such as oral language and fluency, writing and composition, grammar awareness and structure, vocabulary development, reading comprehension, attitude towards language, literacy and literature and study strategies since they have attended various trainings, seminars and conferences.. Based on the findings, Grade 7 English Teachers are generally prepared to teach the subject. Their attendance to various seminars and trainings and their knowledge and technical know-how in the use of the various teaching strategies and instructional materials contributed much to their readiness. On the other hand, the lack of the needed resources in teaching the content areas of Grade 7 English is detrimental in the smooth implementation of the Grade 7 English Curriculum.

**Keywords:** collaborative, integrative, constructivist

## Level of Effectiveness of Instruction and Activities of Faculty with Managerial Functions

**Merlinda Buenviaje<sup>1</sup>, Noel S. Quidato, Eric de la Vega, Virgie Rodrigues**

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**ABSTRACT:** This study aimed to determine the level of effectiveness of instruction and managerial functions of faculty. This is qualitative and descriptive in nature. The researchers prepared instruments to elicit data from the respondents. This study was conductive at the ISAT U Dumangas Campus. The researchers used frequency count and mean as statistical tools in determining the level of effectiveness and t-test in determining the significant difference. The respondents were the 12 faculty members of ISAT U Dumangas Campus with managerial functions. Findings revealed that as to the level of instructional effectiveness the average mean obtained is 4.76 which is highly effective, while on the level of managerial activities the average mean is 4.814 which is highly effective. As to the significant difference: the obtained value is  $.256 > \alpha \text{ level } @.05$  which is not significant. This study concluded that Faculty with managerial function performs effectively both in instruction and managerial activities. There is no significant difference in the performance of the faculty in instruction and his performance in managerial

activities. This study explains that the faculty member is still effective in both instruction and in doing his managerial activities.

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## The Effect of Cooperative-inferential Method of Teaching Organism Biology

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**ABSTRACT:** Many teaching methods have been identified in the sciences program but not one strategy has been identified as more effective under all conditions. This experimental study utilizing cooperative-inferential method of teaching science is premised on this proposition. This was designed to compare students' achievement in organism biology. Answer were sought if there were significant differences in students' achievement between study groups and in the achievement mean scores between pretest-post test results of both study groups and post test results between groups. Null hypotheses were formulated to the answer above questions. A 30-multiple item type was prepared and the validity and reliability of it were determine. Performances of treatment groups were statistically analyzed and interpreted using analysis of variance and T-test of the mean difference between groups. Randomized pretest-post test control group design reveal that there were significant differences in science achievement level of students, between pretest-pro test result of both study groups and post test results between groups.

Significant difference existed between treatment groups in favor of the experimental group, cooperative-inferential might foster better science instruction in all levels of tertiary education. Lastly, it is recommended that teachers should make use of cooperative-inferential teaching as the strategy in the classroom instruction and minimized using the traditional method. Service an in-service trainings should be conducted on the new trends in the use of cooperative-inferential teachings. Further researches should be done on the experimental study on the use of cooperative-inferential teaching strategy in other fields of specialization like social science, mathematics, etc. Finally, a replication of this study should be done outside of the sulu state college by teachers in other schools.

## Near Real-time Watershed Streamflow Forecasting Using the Soil and Water Assessment Tool

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**Abstract.** A near real-time watershed streamflow forecasting system has been developed by utilizing the calibrated and validated watershed model using the Soil and Water Assessment Tool (SWAT) model and the 10-day ensemble weather forecasts from weather underground. The application produces a streamflow forecast for a maximum of 10 days and is updated every minute to obtain the latest result from the simulation. Higher server specifications are necessary to produce results at a lesser execution time to deliver results on a near real-time basis. The web application serves as a portal for viewing of the forecasted streamflow as well as for the alerts and advisories for any critical streamflow. The simulated streamflow was evaluated using the streamflow produced by the calibrated model from 2000 to 2013. A Nash Sutcliffe Efficiency value of 0.86 and a coefficient of determination value of 0.88 have been obtained by the application which reflects a satisfactory result of the application in simulating the streamflow. The result of the streamflow simulation by the application depends on the performance of the calibrated and validated watershed model. The higher its efficiency, the more accurate results will be produced by the application. In addition, the consistency of the source of weather data used during the calibration and validation of watershed model as well as during the testing and deployment of the application is necessary to ensure that the application performs well during the watershed streamflow simulation.

## Action Research on the Effectiveness of Differentiated Instruction in Teaching Science for Grade Five Classes

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**ABSTRACT:** This is conducted to determine the effectiveness of Differentiated Instruction in Teaching Science on Grade 5 pupils and its effect on the academic performance of the pupils. This action research utilized the experimental design since its main purpose was to determine the effectiveness of DI and its possible effects to the mean gain scores on achievement of pupils. The scores were taken and statistically treated using the mean standard deviation and t-test of significant difference. The result showed that posttest scores of the experimental group taught with DI is remarkably better as compared to those which were taught by traditional approach. It is hereby recommended that DI should be used in teaching pupils in Science especially in heterogenous classes because it improved their performance.

## Increasing The Happiness Quotient Through Peace Education

**Ms. Seema Shaikh**

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**Abstract:** The world today is turning into wilderness. The approaching thunderstorm will destroy the world within the coming few decades. The need is to end this insensitivity and indifferences and create peace and tranquility for a harmonious coexistence. But for this we need to understand what is peace. *'Peace does not mean absence of conflict, but the ability to handle conflict by peaceful means'* – Anne Frank. Peace alone will lead to sustainable development of the society and enable mankind to attain the planned sustainable development goals. A stark reality was brought to our notice by the 2014 census. Report of the total suicides per year (i.e. 1366) 6% are by school and college going students. It has been statistically proved that today's young generation is constantly stressed out, under pressure, uncertainty and in a state of confusion. Internal conflict is their major issue. Due to all this they are unhappy at heart. The need of the hour is to increase their happiness quotient and give them an enriched life. To achieve this objective 'Peace Education' is the best answer. With these objectives, we designed the '*Peace Education Programme*'. Its aim is to sow the seeds of responsibility, understanding, compassion and empathy. It creates awareness in conserving environment, strengthening community and is in alignment with the sustainable development goals. We used the MM approach involving surveys, interviews, feedbacks and comparative study. Training programmes and workshops resulted into acceptance, commitment, affirmation, self-realization and self-growth. The data was analyzed using EDA and CDA method. The results proved that the Peace Education for spreading happiness had proved effective and increased the happiness quotient of students and developed several other desired attributes.

## The Mighty Electric Fan

William Ladia

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**ABSTRACT:** The research study was conducted at Calaoagan Dackel National High School, Gattaran, Cagayan, Philippines. The objectives are to design, construct, test the performance of the device and determine its cost of construction. The mighty electric fan was made of ¼ inch sieve and ½ inch sieve mesh wire mounted into the electric fan with insulation of valemoid paper on its base and plastic hose on its circumference. The whole trapping element was connected to its electronic circuit assembly that makes the device works as insects get into the meshes. The kit which is the main center of the device workability is connected to a 9 V DC and



220 V AC respectively. Construction was done at the researcher's residence and tested at the JICA School Laboratory. The device had a very satisfactory efficiency based on the number of mosquito killed and observed in an ideal bedroom. Results indicate that the device is effective in killing other harmful flying insects found in certain room. It is safe to human being but fatal to insects due to its very low ampere current of 0.001 ampere. Results also showed that the capacity and performance of the device depend on the kind and exposure of the room to insects especially mosquitoes.

The cost of construction including the materials used in the device was estimated for ± 429.00 only.





#### **4. Persiapan submit IOP (29 Oktober 2018)**



Meilany Nonsi Tentua &lt;meilany@upy.ac.id&gt;

## Persiapan Submit IOP

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Terima kasih.

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Sincerely,

Marti Widya Sari, S.T., M.Eng  
Up-Incase Editor in Chief  
Email: [widya@upy.ac.id](mailto:widya@upy.ac.id); [upincase@upy.ac.id](mailto:upincase@upy.ac.id)

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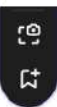
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**Abstract.** This research aims to develop an Information System thesis's administration that efficient and effective supported by computerized administration system or on-line system. The subject of this research is Universitas PGRI Yogyakarta which have 13 study programs. Mobile web can use in the thesis's administration system. It can facilitate the management of required letters and essay recap. This system can also browse the titles of the thesis that has been created so as to reduce duplicate titles of the thesis. This study concludes that the use of thesis administrative systems can facilitate and accelerate the management of the required letters. It also can sorting titles of the essay that has been taken so as to avoid duplication. Based on black box testing, it is found that the whole function has been run well, the functions tested include: (1) User Verification (2) Data Management (3) Information and reporting. 3) Based on the alpha test it can be seen that the system developed in usability is considered good, the assessment aspect includes: ease of use, ease of navigation, access speed, completeness of features and attractive appearance.

## 1. Introduction

Universitas PGRI Yogyakarta (UPY) is one of the Universities where located in Yogyakarta. One of the academic processes in the UPY is the thesis as the final task of a student. The thesis is a compulsory course that must be completed by each student to end his / her study period to obtain a bachelor's degree (S1). In the process of thesis's administering, there is a procedure that must be fulfilled by each student.

The thesis's administrative process of UPY is handled by the administrative staff of each Study Program and it always routinely done every semester. Now UPY has 13 (thirteen) study program, and each study program has similar systematics in thesis's administrative management. But data processing in each study program is still computerized in simple, where the thesis data is stored in the folders created by administrative staff in excel format (\* xls) and word (\* doc). It not yet managed using the information system integrated and online access to all users who are involved in the administration of the final assignment.

That conditions make administrative staff experienced, have some difficulties such as in preparing required letters in the thesis's administration, obtaining information from processing the thesis, recapitulation of thesis's data. This was felt inefficient for the administrative staff because it took a long time to prepare the thesis's administration. The administration system will be efficient and effective if it is exercised at the college level and uses a uniform format, and is supported by a computerized administration system or on-line system [2]. Web Mobile is a collection of HTML pages with browser-based. Which can be accessed with various operating system platforms, and multiple



device sizes (PC, laptop, smartphone, and tablet) via internet or telecommunication networks such as 3G, 4G, or WiFi. [4].

Based on the above description it is necessary to build a Mobile Web-Based Information System for thesis's Administration in University PGRI Yogyakarta. It can be used optimally and according to existing business processes so that can appropriately meet user needs associated with thesis's administrative process.

## 2. Method

This research used the Research and Development (R & D) method, which is a strategy or research method of a series of processes or steps to develop a new product or refine existing products to be accountable. The new product that is produced in this research is the Mobile Web

Based Information System for thesis's Administration in University PGRI Yogyakarta. Design Model used in the Context Diagram. It describes 6 users in that system: Students, Administrative Staff, Head of Study Program, Supervisor, the Tester, and Dean. Identification of data (input) and information (output) can be seen in Figure 1.



Figure 1. Context Diagram

## 3. Results and Discussions

some forms are used in the implementation of this Information System for thesis's Administration in University PGRI Yogyakarta

### 3.1. Submission Form

Submission Form is designated to a student who will make the title submission. This page can be accessed through the keystrokes List on the Login form. On this page students enter data entry include: Name of Student, Sex, Place of Birth, Date of Birth, Origin of School, File Photo, Thesis Title, Photo Files, Email and Password. After filling in all data entry, the student can click the Save button to have the pre-filled data stored in the system database. The submission form can be seen in Figure 2.

**Pengajuan Judul**

**NPM**: 14111100093

**IPK**: 3.42

**Program Studi**: Teknik Informatika

**Total SKS**: 148

**Nama Mahasiswa**: Endang Wijayanti

**File Foto**:  Tidak ada file yang dipilih

**Jenis Kelamin**:  Laki-laki  Perempuan

**Judul Skripsi**: Chat Menggunakan Websocket Berbasis Android

**Tempat Lahir**: Bantul

**Email**: endangwijayanti@gmail.com

**Tanggal Lahir**: 07/08/1998

**Password**: \*\*\*\*\*

**Asal Sekolah**:  SMA  SMK  MA  D3  Transfer

**Figure 2.** Submission Form

### 3.2. Supervisor Information

Supervisor Information page is for students who have submitted the thesis's title. The information presented includes Study Program, Academic Year, Semester, Date SK, No SK and intelligence of students who have received supervisor presented in tabulation form. The tabulation consists of: (1) NPM and Name; (2) Thesis Title; (3) Advisors I & II. The information on this page can also be printed by clicking the Print button. The page view of the Supervisor and Final Information can be seen in Figure 3.

**Informasi Pembimbing Tugas Akhir**

**Program Studi**: Teknik Informatika

**Tahun Ajaran**: 2018

**Semester**: Gasal

**Tanggal SK**: 2018-05-01

**No. SK**: A.01/FT-UPY/Pembimbing.

Show 10 entries Search:

NPM dan Nama	Judul Skripsi	Pembimbing I & II
14111100029 Venny Pebri Hermantiah	Sistem Informasi Geografis Kuliner Berbasis Android Menggunakan Haversine Formula Di Kota Yogyakarta	Wibawa, M.Kom Setia Wardani, M.Kom
14111100067 Yunita Sari	Sistem Informasi Geografi Pencarian Lokasi Cagar Budaya Kabupaten Bantul Menggunakan Location Based Service Berbasis Android	Meilany Nonsi Tentua, MT Marti widya Sari, M.Eng

Showing 1 to 2 of 2 entries

Previous **1** Next

**Figure 3.** Supervisor Information

### 3.3. Information Schedule

Page Information Schedule of the Proposal Exam is for students to know the exam schedule of their proposal along with other students who have the same plan. The information displayed includes: Date SK, No, SK, Day, Exam Date and Time (hours of execution of the exam). The list of examinees is

shown in tabulation with the following columns: (1) NPM and Name, (2) Thesis Title, (3) Supervisor I & II, (4) Examiner & Secretary. The information displayed can be printed by hardcopy or softcopy in pdf file by pressing the Print button. The Proposal Exam Schedule Information can be seen in Figure 4.

Tanggal SK	No. SK	Hari, Tanggal Ujian	Pukul
2018-07-01	A.06/FT-UPY/Penguji-Proposal/2018/07	Senin, 1 Mei 2018	07:00

Cetak

Show 10 entries Search:

NPM dan Nama	Judul Skripsi	Pembimbing I & II	Penguji & Sekertaris	Ruang
14111100029 Venny Pebrli Hermantiah	Sistem Informasi Geografis Kuliner Berbasis Android Menggunakan Haversine Formula Di Kota Yogyakarta	Wibawa, M.Kom Setia Wardani, M.Kom	Mellany Nonsi Tentua, M. T Martí Widya Sari, M.Eng Wibawa, M. Kom Dhananjaya, M.Biotech	Ruang Rapat FT
14111100067 Yunita Sari	Sistem Informasi Geografi Pencarian Lokasi Cagar Budaya Kabupaten Bantul Menggunakan Location Based Service Berbasis Android	Meilany Nonsi Tentua, MT Martí widya Sari, M. Eng	Ahmad Riyadi, M. Kom M. Fairuzabadi, M. Kom Mellany Nonsi Tentua, MT Dhananjaya, M. Biotech	Ruang Rapat FT

Showing 1 to 2 of 2 entries

Previous 1 Next

Figure 4. Information Schedule

### 3.4. Thesis Supervisor

This page is used by staff and Chairman of the Study Program to manage data SK final coaching guidance. This page can be accessed through the menu: SK TA guides found on the left panel of the page. On this page, the operations that can be done is Add Data, Edit Data and Delete Data and Data Details. Information is presented in tabular form. The columns shown include Date, No. SK and Number of Titles. This page can be seen in Figure 5.

Program Studi	Tahun Ajaran	Semester	Tampilkan
Teknik Informatika	2018	Gasal	Tampilkan

Tambah Cetak

Show 10 entries Search:

Tanggal	No. SK	Jumlah Judul	Aksi
2018-05-01	A.01/FT-UPY/Pembimbing/2018/05	5	Detail Edit Hapus
2018-05-15	A.02/FT-UPY/Pembimbing/2018/05	10	Detail Edit Hapus
2018-06-03	A.03/FT-UPY/Pembimbing/2018/05	7	Detail Edit Hapus
2018-06-21	A.04/FT-UPY/Pembimbing/2018/06	8	Detail Edit Hapus

Showing 1 to 4 of 4 entries

Previous 1 Next

Figure 5. Thesis Supervisor

### 3.5. Supervisor Information

This page is for Supervisor known the students who become guidance. This page can be accessed through the Guidance List menu. The information displayed may be filtered by the Festive Year and Semester. Information is presented in tabulation with the following columns: NPM and Name, Thesis Title, 1st, and 2nd Counselor, Status, Number of Meetings. Supervisors can see in detail the record of appropriate student guidance by clicking the Print button. The page can be seen in Figure 6.

NPM dan Nama	Judul Skripsi	Pembimbing I dan II	Status	Pert.	Aksi
13111100059 Rusmaini	Sistem Pakar Diagnosa Penyakit Kanker Payudara Berbasis Android	Meilany Nonsi Tentua, MT Ahmad Riyadi, M.Kom	Bimbingan Proposal	5	<a href="#">Detail</a>
14111100067 Yunita Sari	Sistem Informasi Geografi Pencarian Lokasi Cagar Budaya Kabupaten Bantul Menggunakan Location Based Service Berbasis Android	Meilany Nonsi Tentua, MT Martini Widya Sari, M.Eng	Bimbingan Skripsi	9	<a href="#">Detail</a>

Figure 6. Supervisor Information

### 3.6. Exam Thesis Result

Exam Result page used by Staff and Chairman of the Study Program to input data of the final exam results based on a particular SK (schedule). The information shown includes: Date SK, No. SK, Exam and Test Date (exam time) as well as a list of thesis proposal exam results, including NPM and Name, Thesis Title, Revised Values, and Notes. The operations that can be done are Edit, Add and Print. Examination Result page can be seen in Figure 7.

Tanggal SK	No. SK	Tanggal Ujian	Pukul
2018-07-01	A.06/FT-UPY/Penguji-Proposal/2018/i	2018-07-01	07:00

NPM dan Nama	Judul Skripsi	Nilai	Catatan	Aksi
14111100029 Venny Pebri Hermantiah	Sistem Informasi Geografis Kuliner Berbasis Android Menggunakan Haversine Formula Di Kota Yogyakarta	A	Revisi. Latar Belakang Perlu di Perjelas	<a href="#">Edit</a>
14111100067 Yunita Sari	Sistem Informasi Geografi Pencarian Lokasi Cagar Budaya Kabupaten Bantul Menggunakan Location Based Service Berbasis Android	A	Revisi. Tinjauan pustaka menggunakan literatur lima tahun terakhir	<a href="#">Edit</a>

Figure 7. Exam Thesis Result

#### 4. Conclusion

Information System for thesis's Administration in University PGRI Yogyakarta Has been successfully established. The stages used using the Waterfall approach include the following steps: (1) system analysis; (2) system design; (3) system implementation; (4) system testing; and (5) system installation. Each step is done carefully one by one so that the levels are done in linear.

Based on black box testing, it is found that the whole function has been run well, the tasks tested include (1) User Verification (2) Data Management (3) Information and reporting. 3) Based on the alpha test it can be seen that the system developed in usability is considered good, the assessment aspect includes: ease of use, ease of navigation, access speed, completeness of features and attractive appearance.

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