Conference Program

The 2nd International Conference on Innovative Research Across Disciplines
ICIRAD 2017

Denpasar, Bali
26 August 2017
Committee

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Om Swastiastu,

First of all, allow me to praise Ida Sang Hyang Widhi Wasa, the Lord Almighty, for all His graces bestowing on us the opportunity to be able to assemble here in Sanur, one of the landmarks of the Island of a Thousand Temples—Bali. As the chair of the committee, I feel honoured and delighted to stand in front of you and to welcome you all in the 2nd International Conference on Innovative Research Across Disciplines which has a theme: “Interdisciplinary Research in the 21st Century: Trends, Issues, and Innovation for Education.” And also, welcome to Bali.

Ladies and Gentlemen,

This 2nd International Conference on Innovative Research Across Disciplines is attended by 107 participants who represent five different countries, namely Indonesia, Thailand, Japan, Australia, and France. We received 121 submissions of manuscripts, which consisted of 54 abstracts and 67 full papers. Through a quite tough review process, the conference finally accepted 49 abstracts and 53 full papers. Therefore, on behalf of the committee and the Research Institute of Universitas Pendidikan Ganesha, let us extend our greatest appreciation to all of you who have supported us and contributed your manuscripts to our conference, as well as to the panel of reviewers who have helped us in the selection process.

Ladies and Gentlemen,

Next, let us proudly announce it to you that our beloved conference this year will present two esteemed keynote speakers. The first one is the honourable Prof. Mohamad Nasir, Ph.D., the Minister of Research, Technology, and Higher Education of the Republic of Indonesia, and the second one is the honourable Prof. Jean-Marc Ogier, the President of Université de la Rochelle University, France. We are also honoured due to the presence of our three distinguished panellists among all of us. They are Dr. Pariwate Varnakovida from King Mangkut’s University of Technology, Thailand; Dr.rer.nat I Wayan Karyasa, M.Sc. from Universitas Pendidikan Ganesha, Indonesia; and Dr. Phillipe Grange from Université de la Rochelle University, France. On this blessed occasion, let us express our heart-felt thanks and appreciation for all of our keynote speakers and panellists.
Ladies and Gentlemen,
This conference would not be possible if there were no encouragement and support with its various forms from many parties. Therefore, let us acknowledge, first, the Ministry of Research, Technology, and Higher Education for the supports that have been given to our university through its research funding so that our researchers—who will also deliver their presentations today—could conduct their research; second, the Rector of Universitas Pendidikan Ganesha for his endless commitment, financial support which mostly derived from funds Budget Implementation List (DIPA) Undiksha, and encouragement to the organizing committee so that we can make this event a reality; the local government of Bali and Buleleng Regency for their commitment to maintain sustainable cooperation with Universitas Pendidikan Ganesha in conducting joint research pertinent to local societal issues; the students who have kindly been willing to assist as our liaison officers during this event; and last but not least, the Research Institute of Universitas Pendidikan Ganesha and all the organizing committee members for the hard work and never-ending cooperation to make this event come true.

Finally, in the name of the organizing committee, we thank you for participating in our 2nd International Conference on Innovative Research Across Disciplines. Have a nice and fruitful conference. God bless you.

Om Shanti, Shanti, Shanti, Om.

Singaraja, 25 August 2017
Chair

Nyoman Karina Wedhanti, S.Pd, M.Pd.
Om Swastiastu, Assalamualaikum Warahmatullahi Wabarakatuh, Om Namo Buddhaya, Shalom. May peace be with all of us.

Let us extend our highest gratitude to Ida Sang Hyang Widhi Wasa, the Almighty God, for all of His blessing and mercy to all of us so that we can encounter one another well again in the 2nd International Conference on Innovative Research Across Disciplines with this year’s theme “Interdisciplinary Research in the 21st Century: Trends, Issues, and Innovation for Education.” It is especially such huge bless for our university that we can once again host this international event and see scholars across the globe from different disciplines of education gather and share their expertise, knowledge, and experience. With all due respect, therefore, we would like to express our great appreciation to the Research Institute of Ganesha University of Education and the entire organizing committee for making this event possible.

Valued scholars,
It is unequivocally admitted that the issues the world we live in today is faced with are getting more complex and multi-dimensional in nature that we can no longer lean on a mono-disciplined approach to problem-solve. Education is undeniably a multi-faceted disciplined, and with this shared perspective, any interdisciplinary approach to solving educational problems should be embraced as an alternative to the long-held mono-disciplined tradition in our field. It is our hope that the 2017’s International Conference on Innovative Research Across Disciplines can serve to forge bridges for different insights, experiences, innovations on this emerging issue that have been attempted by various researchers from different areas of educational field.

Distinguished researchers,
Universities all over the world assume a noble responsibility to take part in offering practical solutions to our societal problems and to produce human resources who are also capable of becoming real world’s problem solvers with interdisciplinary mind. From this International Conference on Innovative Research Across Disciplines, we do expect that new interdisciplinary approaches and research ideas in education will flourish and new and richer networking can be established. We also look forward to
seeing your published papers get widespread to echo the importance of interdisciplinary perspective to our fellow colleagues from other universities and relevant stakeholders worldwide. For this, let me congratulate all of you for the eminent contribution that you have made.

Last but not least, thank you for your participation in and support to our 2nd International Conference on Innovative Research Across Disciplines. We wish you the most productive conference. God bless you.

Om Shanti, Shanti, Shanti, Om.

Singaraja, 25 August 2017
Rector of Ganesha University of Education

Dr. I Nyoman Jampel, M.Pd.
NIP. 195910101986031003
Run Down ICIRAD: August 26 2017

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## Parallel Session

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Design of Values Education in School For Adolescents

Suyatno¹, Jumintono², Dholina Inang Pambudi³, Asih Mardati⁴
¹,²,³,⁴Ahmad Dahlan University Yogyakarta
Yogyakarta, Indonesia
suyatnopgsduad@gmail.com

Abstract—The growth and development of values in the students themselves need to be planned, deliberate, and facilitated through education. The ongoing values education tends to ignore the uniqueness of each student. Evidently, the 18 character values developed by the Ministry of Education and Culture are top-down, thus ignoring the personal side of the students. This article attempts to answer the question of what design of values education is appropriate for students entering adolescence. This research is a literature review through library research. Data were analyzed using content analysis. Based on the study of literature, this research reveals that each student has dominant values that are specific and unique so that in its development requires an individual approach. There are two important concepts in developing values for students who are entering the adolescence phase, they are; First, the values is seen, not taught. This concept entails every adult who interact with students should be role-models for the growth of values. Second, values based on environmental education. Like plant seeds which are well developed when they get a good soil, the students' values will grow well when they have the support of values based on environmental education.

Keywords—value, adolescent, role model, and value-based environment.
The Impacts of *Tri Hita Karana* - Based Educational Tourism

Ni Nyoman Parwati¹, I Nengah Suparta², I Made Mariawan³
¹,²,³Faculty of Mathematics and Science
Universitas Pendidikan Ganesha
Singaraja, Indonesia
¹nyoman.parwati@undiksha.ac.id, ²nengah.suparta@undiksha.ac.id,
³made.mariawan@undiksha.ac.id

Abstract—This study was aimed at analyzing and describing the impacts of *Tri Hita Karana*-Based Educational Tourism on the quality of the community life. This descriptive qualitative research was done to the communities of Mengesta Village. The subjects consisted of 60 community members involved as the learning resource persons in developing the educational tourism. The data which were collected consisted of the impact of the development of educational tourism on the improvement of the community life quality. The data were collected by using questionnaire and field observation. The data was analyzed descriptively and qualitatively. The result showed that the average of the respondents’ responses related to the impact of the development of the educational tourism on the social community life was 88%, falling into “positive” minimal qualification. There was an increase in the local economy with the average of 55%.

Keywords—educational tourism, *Tri Hita Karana*, quality of community life
The Impact of Problem Based Learning on Productive Skills and Attitude toward English Language Learning

Ni Wayan Vera Aryanti¹, Luh Putu Artini²
¹,²English Education Department
Ganesha University of Education
Singaraja Bali, Indonesia
nv_aryanti@yahoo.co.id¹, putu.artini@undiksha.ac.id²

Abstract- This study aimed at analyzing the impact of Problem-based learning (PBL) on Students’ productive skills and attitude toward English language learning (ELL). The study employed embedded mixed-method design which involved the collection of both quantitative and qualitative data. The data collection involved the use of pre-test, post-test, closed-ended questionnaire, open-ended questionnaire, observation checklist, and interview guide. Quantitatively, the data were analyzed by using Kolgomorov-Smirnov formula to find the normality of the data and Paired Sample T-test to find the difference between students’ productive skills and attitude before and after the treatment. Qualitatively, the data were analyzed by using Miles and Huberman data analysis which consists of data reduction, data display and conclusion drawing. The result of the study showed that there were significant impacts of PBL on students’ productive skills and attitude toward ELL. This study also concluded that PBL gave positive impact on teaching and learning process.

Keywords: Problem-Based Learning, Productive Skill, Students’ Attitude
THE DEVELOPMENT OF PARENTING MODEL AS A LEARNING RESOURCE TO AVOID CHILDREN ABUSE

Andi Ahmad Gunadi¹, Sri Imawati², Mutiarani³
¹,²,³Faculty of Science Education
University of Muhammadiyah Jakarta, Indonesia
abacab85@gmail.com¹, immawati83@gmail.com²,
mutiaranirahman@gmail.com³

Abstract – This research is aimed at knowing the acts of parenting, knowing the acts of violence in children and knowing the source of learning that can be developed as a model of parenting to avoid children abuse. The method used in this research was qualitative description and data were collected through observation and interview in the form of discussion. The results of this research found that parenting consists of authoritarian, democratic, authoritative, and neglected. There is no violent action in children in the parenting patterns of authoritative and democratic. Violence occurs in children in the form of physical, psychological and economic violence in parents with authoritarian parenting and psychological and economic abuse in parents with neglected parenting. This is due to heredity and socioeconomic status of parents.

Keywords: parenting model, learning resources, children abuse
The Adaptive Elearning System Design Student Learning Style Trend Analysis

Ketut Agustini
Graduate Program of Instructional Technology Department
Ganesha University of Education
Singaraja, Indonesia
ketutagustini@undiksha.ac.id

Abstract — This study aimed to analyze the trend of student learning styles that are used as a basis for designing an adaptive eLearning system, as one of the solutions to improve the quality of learning. In the long run, adaptive eLearning system is expected to overcome the problems in conventional eLearning, which assumes all users’ characteristics are homogeneous. In the realization of this system required several stages namely (i) analysis, (ii) design, (iii) development, (iv) implementation and (v) evaluation. In addition, at this stage the preparation of learning materials will be incorporated into adaptive eLearning. Results at this stage is identified, analyzed, and designed as a system for the trend of student learning styles through questionnaires. The score of the questionnaire results will be used as a basis for providing different materials according to the students learning style i.e. visual, audio, and kinesthetic (VAK).

Keywords— adaptive elearning system, student learning style, trend analysis, questionnaire.
An Alternative Rendering Solution in Animated Movie Making for Final Year Students: A Case Study

I Made Putrama¹, I Gede Mahendra Darmawiguna², Gede Saindra Santyadiputra³
Informatics Engineering Education Department¹, ², ³
Ganesha University of Education
made.putrama@undiksha.ac.id¹, mahendra.darmawiguna@undiksha.ac.id², gsaindras@undiksha.ac.id³

Abstract— The rendering stage in creating 3D animated movies using Blender is a phase with time-consuming process. The more complex the animation, the longer it will take. The same obstacle experienced by final year students of Informatics Engineering Department, Undiksha, who mostly use one computer at a time for rendering. This inhibits the animation making process and causes the progress of their final project takes too long. This problem can be reduced by utilizing Blender network rendering to help complete the process become faster. Unfortunately, the generated output by this feature has to be processed further to obtain the desired result and not much flexibility available to extend it for customization. This paper discusses a proposed alternative by integrating a grid-computing framework that can be programmed and customized as needed. With this approach, the students also will be able to retrieve the results right away without doing some further work on the output.

Keywords—network rendering, grid computing, Blender 3D, animation
The Effect of Interaction between The Form of Formative Assessment and Learning Autonomy on Learning by Controlling Mathematical Logical Intelligence

Mahayuki Gst Ayu¹, Candiasa I.M², Dantes N³, Marhaeni A.A.I.N⁴
¹,²Mathematics Education Department, ³,⁴Post-Graduate Study Program
Ganesha University of Education
Singaraja, Indonesia
gustiayumahayuki@undiksha.ac.id¹

Abstract—This study was aimed at investigating the effect of interaction between the form of formative assessment and learning autonomy on learning achievement after controlling mathematical logical intelligence. The forms of formative assessment used in this study consisted of portfolio assessment and essay assessment. This study was conducted at Mathematics Education Department of Universitas Pendidikan Ganesha in Integral Calculus course using 2x2 treatment by level and involving 88 students who were selected by random. The data were analyzed by two way covariates analysis after mathematical logical intelligence was controlled. The result showed that there was an effect of interaction between the form of formative assessment and learning autonomy on learning achievement after logical mathematical intelligence was controlled. The students with a high learning autonomy were more suited to the learning process with portfolio assessment, while on the students with a low learning autonomy was more suited to the learning process with essay assessment.

Keywords: form of formative assessment; Integral Calculus learning achievement
Sport Education Model (SEM) Towards Study Result of Passing

Muchamad Ishak  
Pendidikan Olahraga  
STKIP Pasundan Cimahi  
Cimahi, Indonesia  
muchamadishak11@gmail.com

Abstract—This research is aimed to know the sport education model that significantly influences toward the study result of passing in futsal. The research method used is experimental method. The population was the eleventh grade students of vocational school namely SMK PGRI 1 Cimahi as many as 24 students. All of the population were chosen as sample. The design of this research is pretest posttest control group. The instrument used is passing test that was measured by rubric. Based on the data analysis, it was obtained the value of t as many as 16.58 bigger than t table 1.714. It can be concluded that learning using sport education model gives significant influence towards the study result in futsal to the students of SMK PGRI 1 Cimahi. Based on the findings, the implication of this research is SEM influences positively towards passing in futsal to the students of SMK PGRI 1 Cimahi.

Keywords—Sport education model; passing; futsal

Endah Tri Priyatni¹, Nurhadi²
¹,²Universitas Negeri Malang
Malang, Indonesia
endah.tri.fs@um.ac.id¹

Abstract — This article reports the findings of qualitative research on the critical responses of junior high school students to deviant social practices in their environment using a creative dialogue learning model. The focus of this research is what deviant social practices most students find in their environment and how students’ critical responses to such deviant practices are. The subject of this research is the seventh grade students of SMPN 3 Malang. Research data is in the form of students’ responses to the type of deviant practices and students' critical responses to such deviant social practices. Data were analyzed by using spiral process, i.e. describing, classifying, and interpreting. The findings of the study indicate that the most disturbing social practices found among students in their environment are domestic violence and bullying. Students' critical responses are diverse, i.e. arguments, criticisms, and suggestions.

Keywords — Critical responses, deviant social practices, creative dialogue
Basketball Learning Using Animation Media-Based

Silvy Juditya¹, Dhani Agusni²
¹, ²Pendidikan Olahraga
STKIP Pasundan Cimahi
Cimahi, Indonesia
tenurjanah78@gmail.com¹

Abstract—The aim of this research is to know the influence of animation media towards the basic technique of overhead pass in basketball. The method of this research is experimental method. The population and sample used was the students of junior high school namely SMPN 8 Cimahi in 2016-2017 academic year which consisted of 20 students. The sample was taken using purposive technique sampling. The instrument used is overhead pass technique in basketball test. The result and conclusion are follows: 1) Learning using three dimension animation gives significant influence towards overhead pass skill in basketball. 2) Learning without using three dimension animation gives significant influence towards overhead pass skill in basketball. 3) Learning using three dimension animation gives more significant influence towards overhead pass skill in basketball.

Keywords—Overhead pass, basketball, animation media
Local Wisdom Of Subak As A Model Of Character Building For Social Studies Learning In Schools

I Putu Sriatha¹, I Nyoman Jampel², I Wayan Widiana³, I Gede Astra Wesnawa⁴

¹Department of Geography Education, ²Department of Education Technology, ³Department of Primary School Education Teacher, ⁴Department of Geography Education
Universitas Pendidikan Ganesha
Singaraja, Indonesia
putusriartha@gmail.com¹, nyoman.jampel@gmail.com², wayan_widiana@yahoo.co.id³, gede_astrawesnawa@yahoo.co.id⁴

Abstract— This study aimed to trace back any character values contained in local wisdom of the Balinese traditional irrigation system called Subak and to construct it as a model of character building for social studies learning in schools. To obtain the objective, this study made use a meta-analysis approach. The primary sources of data were all research findings which have been published in either relevant national or international journals along recent seven years (2011-2017). The data and findings of the study were analyzed and formulated by using a descriptive-interpretative technique. The finding of the study was 17 character values in local wisdom of Subak which was related to the national character formation. The notion of Subak based character building in social studies learning was applied into a model of indoor-outdoor study. The notion needs testing to measure the effectivity of its implementation and its constraints through further researches.

Keywords—subak, character education, social studies learning
The Quality of Chemistry Learning Process Viewed from Learning Outcome Indicators and Process of Teaching

I Wayan Subagia\textsuperscript{1}, I Gusti Lanang Wiratma\textsuperscript{2}  
\textsuperscript{1,2}Chemistry Education Department  
Universitas Pendidikan Ganesha  
Singaraja, Indonesia  
wayan.subagia@undiksha.ac.id\textsuperscript{1}, ramaglan99@gmail.com\textsuperscript{1}

\textit{Abstract}—This research aims at describing and explaining the quality of chemistry learning of senior high school students. This research was a qualitative study focusing on analysing the formulation of learning outcome indicators and the learning process organized by teachers as well as factors influencing the learning process. Three chemistry teachers teaching at grade ten, eleven, and twelve from three different schools located at the district of Buleleng, the Province of Bali, were involved in this study. Document analysis and interview technique were used to collect information. The result of this study revealed that: 1) The formulation of learning outcome indicators involved lower order thinking and higher order thinking categories. However, most formulations were fallen into low order thinking category. 2) The learning process used various approaches, methods, and strategies. 3) The factors influencing the teaching learning process came from three resources, namely: the students, the teachers, and the schools.

\textit{Keywords}—chemistry learning process, learning outcome indicators, teaching process.
An Analysis of Instructional Material Need For Improving Students’ Ability in Writing Cash Flow Reports

Ni Luh Gede Erni Sulindawati
Diploma III Program of Accounting Department
Universitas Pendidikan Ganesha
Singaraja, Indonesia
esulind@gmail.com

Abstract— This article was aimed to analyze instructional material need for improving the students’ ability to write a cash flow report. The writing of a cash flow report consisted of (1) method and format of a cash flow report; (2) procedure in writing a cash flow report, and (3) analysis of accounts that belong to asset group, liability and equity and the effect on the cash flow. To improve the ability of the students in writing a cash flow report, one can use Microsoft excel media by following three steps, i.e., (1) calculating the difference of the existing accounts; (2) analyzing changes of accounts in the balance sheet by understanding the concept of the effect of the change on cash flow; and (3) presenting the effect of the cash flow report on the cash flow report format.

Keywords— material, cash flow report, Microsoft Excel
Recommendation System for Selection of Majors and Apprenticeship on Vocational and Training Education Based on Competency to Produce Demand Driven Graduates

Agus Aan Jiwa Permana¹, Luh Joni Erawati Dewi², Komang Setemen³

¹,²,³Informatics Management
Universitas Pendidikan Ganesha
Singaraja, Indonesia
agus.aan@undiksha.ac.id¹, joni.erawati@undiksha.ac.id², k.setemen@undiksha.ac.id³

Abstract—This research aims to produce demand driven human resources through vocational education and training. In the process of realizing it, it is necessary to innovate in several sectors, such as the selection of appropriate majors and apprenticeship process in accordance with the competence of students in the middle to college level. The method applied in this research is to do the selection process for new students by giving recommendation of the department which is in accordance with the competence of the students by taking the majors test. Then the students will take part in the apprenticeship, will take the test and with some component of the value of the course or course, the value of report cards, and the GPA will be processed and produce recommendation of apprenticeship location in accordance with the student’s competence. The impact of this research is students who are in the appropriate majors, will affect the comfort in the learning process so as to maximize student potential. The apprenticeship location recommendation aims to provide work comfort, work motivation, good career expectations for students who attend apprenticeships in the industrial world. So the graduates produced by vocational education is demand driven.

Keywords—Vocational Education and Training, Majors Recommendations, Apprenticeship Recommendations, Student Competencies, Demand Driven
EVENT BASED ASSESSMENT: A FORMATIVE ASSESSMENT OF INTEGRATED CHARACTER EDUCATION

Ni Made Sri Mertasari¹, Made Yudana², Nyoman Gita³
¹,²,³ Ganesha University of Education
srimertasari@undiksha.ac.id¹, made.yudana@undiksha.ac.id²,
Nyoman.gita@undiksha.ac.id³

Abstract—This research tried to formulate the model of formative assessment of integrated character education in schools by adopting the assessment model of Balinese cultural events. Various events of Balinese people, either religious or social events are solved through mutual cooperative. Members of the community involved vary widely, either in terms of age, experience, or profession, so that indirectly occurs the learning process and formative assessment. The formative assessment takes place in an integrated manner covering the components of performance, attitude, and behavior. Assessment takes place without instruments and the results accumulate into a person's track record. Feedback can be clues or suggestions. Uniquely, the assessment is done by everyone to everyone involved. Senior and junior assess each other, seniors assess each other, and junior assess each other also. Feedback is used as input to improve their selves. The assessment model can be implemented in schools in the form of direct observation with inventory. Inventory includes components of performance, attitude, and behavior. Assessment results can be integrated with the portfolio, so that the assessment results are more complete and more integrated.

Keywords—Assessment, Formative Assessment, Integrated Character Education
Development Of Critical Thinking Disposition Inventory

I Wayan Redhana¹, I Wayan Karyasa², Ni Putu Fitria Atrisa³
¹,²,³Department of Chemistry Education
Universitas Pendidikan Ganesha
Indonesia
redhana.undiksha@gmail.com

Abstract—The aims of the study was to produce an inventory of critical thinking disposition. The inventory was used to measure critical thinking disposition of junior high school students. Model of the study was research and development. Stages of the study included (a) research and information collecting, (b) planning, (c) develop a preliminary form of product, and (d) preliminary field testing. The inventory was based on seven scales of critical thinking disposition of American Philosophy Association, including (a) truth-seeking consisting of five subscales, (b) open-mindedness consisting of three subscales, (c) analyticity consisting of eight subscales, (d) systematicity consisting of four subscales, (e) critical thinking self-confidence consisting of five subscales, (f) inquisitiveness consisting of two subscales, and (g) cognitive maturity consisting of six subscales. Results of expert validations and readability testing showed that, in general, the inventory being developed was very appropriate to measure the critical thinking disposition of students.

Keywords—critical thinking; disposition; inventory
Developing A Lesson Study Based Course Book For Learning Material Development Course

Desak Putu Parmiti
Jurusan Teknologi Pendidikan Fakultas Ilmu Pendidikan
Universitas Pendidikan Ganesha
Singaraja, Indonesia
dp-parmiti@undiksha.ac.id

Abstract—This study was aimed at producing a course book for material development course at Educational Technology Department of the Faculty of Educational Science, Universitas Pendidikan Ganesha through a lesson study as an effort to improve quality of instruction. This study was a development research. The course development used Hannafin and Peck material development model that consists of need analysis, design, development and implementation, evaluation and revision. The data were analyzed using descriptive analysis technique and inferential statistical analysis (t-test). The results showed that (1) the course book was developed following the stages of analysis, design, development and implementation with evaluation and revision in each stage; (2) the course book got a good score from experts, and the students; and (3) the course book was evaluated through lesson study which showed that there is a significant difference in the students’ achievement between before and after using the course book.

Keywords—course book, lesson study, learning achievement
Online Code Engine to Support Programming Classes: A Case Study

I Wayan Adi Sparta¹, I Made Putrama², Gede Aditra Pradnyana³

¹,²,³Department of Informatics Engineering Education
Universitas Pendidikan Ganesha
Bali, Indonesia
adisparta11@gmail.com², made.putrama@undiksha.ac.id², gede.aditra@undiksha.ac.id³

Abstract—multi-user applications that can help in learning subjects are now increasingly popular, especially web-based applications. However, the system load will increase as the number of connected users at the same time increases especially in applications that require more usage resources. Therefore, it is important for the system to implement client-based processing in similar applications. This paper discusses how a system that applies client-based processing is built as needed to address the problem. This system is a learning management system that has some features to learn something, that is programming language system, in this case. The developed system consists of interlinked web and desktop applications that have been tested and show favorable results in terms of usability and user response.

Keywords—learning management system, online compiler, client-based processing
Genuine Involvement In Continuous Professional Development: How To See It?

I.G.A. Lokita Purnamika Utami\textsuperscript{1,2}
\textsuperscript{1}English Language Teaching graduate program, State University of Malang, Malang, Indonesia
\textsuperscript{2}English Education Department Universitas Pendidikan Ganesha, Singaraja, Indonesia
lokitapurnamika@undiksha.ac.id

Abstract— This article presents the synthesis on how genuine involvement in Continuous Professional Development (CPD) can be predicted. This synthesis derives from the findings of a phenomenological study involving in depth interviews toward 12 English teachers in Indonesia. Teachers are very often justifying their professional development by submitting in documents clarifying their professional development participation. However, the study found that the frequency of professional development participation is not the best way to see their genuine involvement. The study suggests that teachers’ professional enthusiasm, i.e., professional motivation, perceived impact of CPD and sustainability effort, can be considerably important component to predict their genuine involvement. Research implications regarding the evaluation on teachers’ professional development are also highlighted.

Keywords— CPD involvement levels, professional enthusiasm, genuine CPD involvement
The Development of Students’ Intrapersonal Instrument of Electrical Engineering Program Vocational Schools in Bali

I Gede Ratnaya¹, Gaguk Margono²
¹Ganesha University of Education
²Universitas Negeri Jakarta
Singaraja, Indonesia,
Jakarta, Indonesia
Gede.ratnaya@undiksha.ac.id

Abstract—This research aimed to develop an instrument to measure the intrapersonal skill of Electrical Engineering Program students at Vocational High School in Bali by using Likert scale. This capability is important in regulating and monitoring personal’s goals during vocational education at SMK. This instrument has been tested to 110 students at Engineering Utilization of Electricity Program in the entire province of Bali. The validation of the instrument through the content validation by the experts, the validation grains measure with Momment Product engineering, and the validation of the construct done by factor analysis. Factor analysis uses the confirmation method Maximum Likelihood (ML) with the conformity or suitability obtained Chi Square amounted to 113,8 (p-value = 0,2622) and Goodness of Fit Index (GFI) by 0.92.

Keywords—intrapersonal intelligence, vocational students, factor analysis
Cooperative Learning Model Group Investigation Type and Mathematic Achievement of Elementary School Students

I Ketut Gading¹, Ketut Siti Ajerah², I Gusti Ngurah Japa³

¹Department of Guidance and Counselling
²Department of Primary School Teacher Education
³Department of Primary School Teacher Education

Universitas Pendidikan Ganesha
Singaraja, Indonesia
ketutgading35@gmail.com, ajerah_ketut@yahoo.com, ngrjapa_pgsd@yahoo.co.id

Abstract--This is an experimental research which aimed at investigating the effect of Cooperative Learning Model Group Investigation Type based on Bruner’s theory toward Mathematic achievement of grade IV elementary school students. The experimental design used was nonequivalent posttest only control group design. There are 33 grade IV students of SD Negeri 1 Pegayaman assigned as experimental group and 38 grade IV students of Madrasah Iftidaiyah Miftahul Ulum assigned as control group. Cooperative Learning Model Group Investigation type was implemented for 4 months (32 meetings) toward experimental group, meanwhile the control group taught by their teacher using their daily learning model (conventional model). The students’ achievement were tested using math achievement test, then analyzed using t-test. The result showed that Cooperative Learning Model Group Investigation type based on Bruner’s theory influence the students’ math achievement.

Keywords-- Cooperative Learning Model, Group Investigation, Math Achievement
Pre-Service Young Learner English Teachers’ Reflection through Simulated Teaching Practice

Luh Diah Surya Adnyani
English Education Department
Universitas Pendidikan Ganesha
Singaraja, Indonesia
surya.adnyani@undiksha.ac.id

Abstract— Simulated teaching practice was integrated into Material and Media Development course under Teaching English for Young Learner program in a university of education in Indonesia. This study described 26 pre-service young learner English teachers’ reflection from simulated teaching practice videos, peers and lecturer’s comment, peers’ response cards, and self-reflections. The findings of the study are as follows. First, the participants had never before experienced simulated teaching practice for young learner. Second, they used reflection tools, such as videos, peers and teacher’ comments, and observation of peers’ presentations, to help them develop their awareness of the skills they employed, the competencies they need to improve, their strengths and weaknesses, as well as the difficulties they found and the decision to solve the problems. The reflection of these less-experienced pre-service teachers through simulated teaching practice promotes their professional growth.

Keywords—reflection, pre-service, young learner English teacher, simulated teaching practice.
The Development of Pragmatics Learning Tools to Improve Critical Thinking Skills

Ni Made Rai Wisudariani¹, Sang Ayu Putu Sriasih²
¹,²Universitas Pendidikan Ganesha
Singaraja, Indonesia
raiwisudariani85@gmail.com, sap.sriasih@undiksha.ac.id

Abstract— The research development in the first stage was aimed at arranging prototype of Pragmatics learning tools oriented problem-based learning model which could improve understanding concept and students’ ability to think logically and critically. The subject of this study were both Ganesha University of Education, Undiksha lecturers and the students of Indonesian Language and Literature Study Program in the 4th semester. The research method used was descriptive qualitative method that comprised the fourth semester students and lecturer in Indonesian Language and Literature Study Program at Ganesha University of Education as the subject of the study. The data were collected through questionnaire, interview and document study. The result of this research showed that learning tool which was required by lecturers and students in Pragmatics learning course including syllabus, lesson plan, textbooks, media and assessment oriented on contextual and actual political social problem became the polemics in social life.

Keywords—learning tool, critical thinking
Finding Similarities and Differences: An Implementation of Information-gap Game in Teaching Speaking

G. A. P. Suprianti¹, Ni Wayan Lestari²
¹,²English Education Department
Universitas Pendidikan Ganesha
Singaraja, Indonesia
¹gap.suprianti@undiksha.ac.id, ²wayanlesari68@yahoo.com

Abstract— This study aimed at investigating whether or not there was significant effect of information-gap game technique, specifically finding differences and similarities, on the speaking competency of the tenth graders in a high school in Bali. The present study was an experimental research applying posttest-only control group design. Class X2 and X3 were chosen as the samples of this study. Class X3 that consisted of 28 students was assigned as the experimental group and class X2 that consisted of 25 students was assigned as the control group. Speaking test, scoring rubric and lesson plan were used for collecting data in this study. The data were analyzed by using descriptive and inferential analysis. The hypothesis testing showed there was significant effect of information-gap game on the students’ speaking competency.

Keywords— information-gap game, teaching speaking
New Concept of Learning Outcomes Assessment in Adaptive Mobile Learning

I Made Agus Wirawan¹, I Gede Mahendra Darmawiguna²
¹,²Departement of Informatics Education
Universitas Pendidikan Ganesha
Singaraja, Indonesia
¹imade.aguswirawan@undiksha.ac.id,
²mahendra.darmawiguna@undiksha.ac.id

Abstract— Although technology can positively affect learning process, learning technology like Adaptive Mobile Learning (ALM) for assessment still poses two main problems in terms of its tests session value and the possibility of the test being taken repeatedly by learners. This study proposes the use of Simple Additive weighting method (SAW) to improve AML systems by using tree criteria, such as: test session, learning session number and learning intensity. These criteria to enable the learning process according to their level of competence. A model of AML system is then drafted by applying the SAW Method with the infusion of the tree criteria based on Bloom’s Taxonomy. It is strongly recommended that a research in near future 1) should be conducted to develop AML system using SAW method for optimizing the learning assessment on AML system and 2) can add an assessment rubric based on Blooms Taxonomy Model.

Keywords— Adaptive Learning; Mobile Learning; Assessment; Simple Additive Weighting; Cognitive; Affectiv; Learning Outcomese.
COMMUNITY EMPOWERMENT THROUGH ERGO-ENTREPRENEURSHIP TRAINING TO INCREASE HEALTH QUALITY AND ATTITUDE OF SCULPTORS ENTREPRENEURSHIP IN GIANYAR BALI

I Made Sutajaya\textsuperscript{1}, Ida Bagus Putu Arnyana\textsuperscript{2}

\textsuperscript{1,2}Department of Biology Education
Faculty of Mathematics and Natural Sciences UNDIKSHA
E-mail: madesutajaya@yahoo.co.id

Abstract— The aim of research is to know the empowerment strategy of society in the form of ergo-entrepreneurship in overcoming unhealthy and uncomfortable working condition. Through a field experimental study with pre and posttest group design assessed; (a) the health quality of the sculptor based on the musculoskeletal complaint, fatigue and workload; (b) entrepreneurial attitudes were recorded by questionnaire. Data collection was done before and after working on 32 samples. The data obtained were analyzed by paired t test. The results showed: an increase in musculoskeletal complaints of 37.39\%, fatigue by 36.52\%, and workload of 37.32\% (p <0.05). The attitude of sculptor entrepreneurship in the low category (score: 38.69). Thus it can be concluded that unhealthy and uncomfortable working conditions and inadequate marketing mechanisms of the product turn out to reduce the health quality of the dissertation sculptors with relatively low entrepreneurial attitudes.

Keywords: Attitude, Empowerment, Health, and Sculptor
Abstract—This paper focuses on code mixing in an Indonesian-German bilingual child. Within the nuclear family, the child received Indonesian from the mother and German from the father. The child also has a sister who speaks both languages fluently. The data was collected when the child was at age 1;0 up to 3;0. In collecting the data, diary records supplemented with weekly video recordings were used. The data shows that the child used Indonesian as the main code and inserted German words in her Indonesian utterances. German words inserted were mostly related to names of food. Some other words that she inserted were the German words that she already acquired. The reasons why Indonesian acts as the main code can be explained that Indonesian was the main language spoken in the family. It is also the language spoken by the extended family members and the society as the family lives in Indonesia. Therefore, Indonesian was heard more frequent than German. Eventhough the child produced some code mixing in her utterances, the child has the competence in becoming bilingual. Thus code mixing occured in the level of the child’s performance.

Keywords—Code mixing, bilingual, Indonesian-German
Implementing ICT-Based learning material using Blendspace in Phonology classes

Rima Andriani Sari¹, Putu Eka Dambayana Suputra² I Wayan Pastika³, I Nyoman Suparwa⁴
¹,²Universitas Pendidikan Ganesha
³,⁴Universitas Udayana

Abstract—This Study reports the implementation of ICT-based learning materials using Blendspace in phonology classes. The ICT-based learning material has been developed in 2016. The learning material developed has been validated by experts using check list as an intrument which has been analized using Gregory formula. The experts’ judges show that the content validity of the learning material is 90.9% which means very valid. Furthermore, in order to find out the effectiveness of the learning material, it has been implemented in phonology classes with the subjects of the research were the second semester students of D3 English Department of Universitas Pendidikan Ganesha using classroom action research. Based on the teaching learning process using the material, more than 70% of the students obatained scores between 76-100. There was only less than 30% of the students had scores below 75. Therefore, the learning material is considered effective to be used in learning phonology.

Keywords—ICT-based, learning, Blendspace, phonology
Developing Ngadanese Local Culture-Based Supplementary English Reading Material for the Eighth Grade Students of SMP Negeri 2 Soa of Ngada Regency in Academic Year of 2016/2017

Siprianus Wara¹, I Ketut Seken², I Gede Budasi³
¹,²,³Post Graduate Program, English Education Department, Ganesha University of Education, Singaraja, Indonesia

Abstract—This study aimed at finding out the material needed to be developed, identifying on how to develop Ngadanese-local culture-based English material, and analyzing the quality of the local culture-based supplementary English reading material for the eighth grade students of Junior High School. The material development by using R&D design model from Sugiyono ((2012). The first finding identified the material through need analysis. Second was the developing the material fulfilled the aspects of good material: content, language used, activities, and the assessment. The quality of the prototype categorized as having good material as indicated by the experts’ mean score of 4.2 or 4.5 and the excellent material which indicated by the teachers’ mean score of 4.65 or 4.5. In addition, the students’ perceptions toward the product showed the English reading material fulfilled the aspects of attractiveness, simplicity, practicality, usefulness, clarity and detail.

Key words: Reading Culture Development
THE ANALYSIS OF SPEECH ACTS USED BY INDONESIAN PRESIDENT JOKO WIDODO AND AMERICAN PRESIDENT BARRACK OBAMA

I Made Suwartama
Semarang State University
ImadeSuwartama@gmail.com

Abstract—Speech act is a part of pragmatics fields. In this study, the researcher implemented Searley’s Speech Acts Theory (1969). The study investigated and analyzed the type of speech act delivered by Jokowi and Barrack Obama’s speech. The research design was descriptive qualitative method. The result showed totally 172 speech act types. 38 speech acts type conveyed by Jokowi, it consisted of Expressive Acts: 5 (13.15%), Declarative Acts: 1 (2.63%), Assertive Acts: 19 (50%), Directive Acts: 7 (18.42%) and commissive acts: 6 (15.78%). Barrack Obama’s speech delivered 134 speech act types, it consisted of Assertive Acts: 57 (42.22%), Directive Acts: 25 (18.51%), Expressive Acts: 19 (14.17%), Declarative Acts: 16 (11.94%), and Commisive Acts: 17 (12.68%). Assertive acts was the highest rate and the lowest rate was Declarative Acts. So, all types appeared in Barrack Obama’s speech and the emerge of assertive acts are mostly used by them.

Keywords: Speech acts, Searley’s speech act theory, descriptive qualitative research
The Educational Value of Hinduism on the *Gumi Suda* Ceremony at the Birth of the *Buncing* Twin Babies (Case Study at Pakraman Village of Ketewel, Sukawati District, Gianyar Regency)

Asthadi Mahendra Bhandesa¹, I Gede Putu Darma Suyasa², Ni Wayan Kesari Darmapatni³

¹²³Program Studi Ilmu Keperawatan
Sekolah Tinggi Ilmu Kesehatan Bali
Denpasar, Indonesia
Bhandesa_asthadi@yahoo.com, Putudarma.stikesbali@gmail.com, Kesarikesya@gmail.com

Abstract— This study aimed to identify the educational values of Hinduism on the *Gumi Suda* ceremony at the Birth of the *Buncing* Twin Babies in Pakraman Village of Ketewel, Sukawati District, Gianyar Regency. The data were collected by using interviews technique and literatures review. Furthermore, the data were analyzed through data reduction process or chosen according to the purpose of the research. The data analysis process were done continuously during the research from the beginning until the end of the research through the systematic tracking and arranging process of the transcripts of interviews, field notes and other materials. The Findings indicated that some of the educational values of Hinduism on the *Gumi Suda* ceremony at the Birth of the *Buncing* Twin Babies in Pakraman Village of Ketewel, Sukawati District, Gianyar Regency are tattwa, ethics, ceremonial, health education and social educational values.

Keywords: *Buncing Twins, Educational Values of Hinduism, Gumi Suda Ceremony*
Translating International Standard Audit Adaptation using Diagnostic Control System on Higher Education

Stanislaus Adnanto Mastan
Accounting Department
Universitas Ciputra
Surabaya, Indonesia
Stanis.mastan@ciputra.ac.id

Abstract— Higher Education play a critical role in producing graduates who are competent and required to be able to adapt with changes in policy and structural. One of the impact is occurred in the Accounting areas where global competition leads to changes in the standard financial audit into the International Standard on Auditing. The purpose of this paper is twofold: first, the study simply seeks the further understanding of adaptation process that conducted by auditing course coordinator in Accounting department. Second, it identifies factors influencing successful new standards adoption. Uniquely, both of these purposes were investigated through diagnostic control system perspective. Using the qualitative approach and case study as strategy, this study found that lecturers follow the formal information system which is used to measure the output of adoption process periodically and they have the ability to correct deviations from standards but they have not done any comparison between periods.

Keywords: Diagnostic Control System, Higher Education, Auditing Standards
Is Accounting Active Learning important? A phenomenology study at an entrepreneurial university

Maria Assumpta Evi Marlina¹, Maichal²
¹,²Management and Business Faculty
Ciputra University
Surabaya, Indonesia
emarlina@ciputra.ac.id maichal@ciputra.ac.id

Abstract—Entrepreneurship education is educational program that uses several approaches to provide knowledge, skills, and motivation to students to achieve success in entrepreneurial activities. Entrepreneurial learning is one of the learning methods that can be implemented in entrepreneurship education. Implementation of entrepreneurial learning in Accounting Department Ciputra University called Accounting Active Learning (AAL). The purpose of this study is to explore in depth about the impact of AAL method from students perspectives on their learning outcomes. This research uses qualitative method with phenomenology study approach. The results show that AAL is able to provide a real picture to students to understand the concept of theory. In addition, based on their experiences, students become more sensitive in looking at opportunities and risks in a business. The success in the implementation of AAL is not only determined by lecturer (mentor) or campus environment, but also determined by student motivation and support from parent.

Keywords—entrepreneurship education, entrepreneurial learning, accounting active learning
ANALYZING SCIENCES TEACHING PRACTICES AS A FOUNDATION TO DEVELOP LEARNING MATERIALS FOR BASIC-1 NATURAL SCIENCES COURSE AT GANESHA UNIVERSITY OF EDUCATION

Ni Made Pujani¹, Ni Luh Pande Latria Devi¹
¹,²Program Studi S1 Pendidikan IPA FMIPA Undiksha
made.pujani@undiksha.ac.id, latria.devi@gmail.com

Abstract— The purpose of this study was to develop a learning materials in Basic Natural Science course for university level. Descriptive method was chosen as the methodology of this study. The research activity began by assessing basic science curriculum in Teacher Training University and science curriculum in junior high school, followed by analyzing the implementation of learning, evaluation at Natural Sciences laboratory facilities. The data also gathered by digging information from lecturers and teachers about the implementation of science teaching and learning. The results of this study provide a real picture of the need to develop basic teaching materials for Basic-1 Natural Sciences Course and generate a portfolio of teaching materials topics that will be developed. From the analysis, 6 topics teaching materials had been set to be developed in Basic-1 Natural Sciences Course and 6 other topics to be developed further in the Basic-2 Natural Sciences Course.

Keywords: analysis, science learning, teaching materials, basic natural science
PREPARATION OF HIGH EDUCATION IN APPLY INTERNATIONAL STANDARD AUDIT (ISA) IN AUDITING COURSE

Kazia Laturette
Accounting Departement, Ciputra University
Indonesia
klaturette@ciputra.ac.id

Abstract— The International Standard Audit or ISA was adopted by Indonesia since 2013 to fulfill the responsibility, The academician must prepare or update the knowledge of the audit on the lecturers as teachers and students who will later use the science that has been studied. This study aims to describe the situation in the world of education regarding the implementation of ISA in Audit. Implementation of ISA in this audit subject can’t be separated from the role of lecturers who always renew their scholarships and educational institutions that provide support to lecturers and students in applying ISA in audit courses. This study examines the readiness of lecturers and the role of institutions in implementing ISAs in AUDIT courses, as well as exploring the perceptions of the implications of ISA implementation on audit practices and teaching. This research is a quantitative research, with a sample of several lecturers (lecturers) audit at various universities.

Keywords : readiness of lecturers, role of institutions in implementing ISA in AUDIT courses, ISA
DEVELOPING CULINARY TOURISM BY PALM SUGAR AND CASSAVA MATERIALS TO SUPPORT THE ECONOMIC GROWTH OF BEGGAR COMMUNITY IN MUNTIGUNUNG AND PEDAHAN VILLAGES, KARANGASEM REGENCY

I Wayan Sadia¹, I Ketut Suma², I Ketut Supir³
¹ Lecturer at Faculty of Science and Mathematics
² Lecturer at Faculty of Science and Mathematics
³ Lecturer at Faculty of Art and Language
Universitas Pendidikan Ganesha, Indonesia
prof.iwayansadia@yahoo.ac.id

Abstract—This research is aimed at helping an improvement the mindset of Muntigunung and Pedahan communities villages. This research take the form of development and diversification of dry land farming crop into various kinds of products which were acceptable to the local community only, but now is oriented toward culinary tourism products to accelerate the economic growth of the community. This study applied PALS to invite the people to participate directly in the process and evaluation. The result shows that 1) some of the people in Muntigunung and Pedahan villages have got sufficient skills in developing culinary tourism products by using local materials; 2) there has been a significant improvement in economic standard in the communities; and 3) there has been a change in the social system, i.e., some of them has been change their culture from a beggar culture into a creative community toward a self-sufficient community.

Keywords: culinary tourism, cassava, palm sugar, Muntigunung and Pedahan
I Ketut Gading¹, I Made Tegeh²
¹Departement of Guidance and Counselling
²Departement of Educational Technology
Universitas Pendidikan Ganesha
Singaraja, Indonesia

Abstract- This study is the first year of three years research planned. The main focus of the first year research is to find the theoretical model of self-control training to overcome the aggressive behavior of senior high school students. The research begins with constructing the theoretical model of the training, followed by focus group discussions, expert judgement, and revision. Focus group discussion is intended to examine the equity of the training model with the characteristics of high school students. The focus group discussion involved 3 experts and 6 practitioners. Furthermore, expert judgment is intended to examine the acceptability of the training model by involving 3 experts, namely 2 guidance and counseling experts and 1 educational technology expert. The results showed that: (1) the theoretical model of self-control training consists of component elements, process elements, and elements of purpose; (2) Acceptability of self-control training model is very high.

Keywords: Theoretical Model, Self-Control Training, Aggressive Behavior
EFFECT OF SOCIAL CAPITAL FOR PERFORMANCE OF INDIGENOUS COMMUNITY FINANCIAL INSTITUTIONS IN THE PROVINCE OF BALI

I Nengah Suarmanayasa
Ganesha University of Education
Singaraja – Bali
Suarmanayasa_undiksha@yahoo.com

Abstract- This research is done to analysis social capital factors roles toward performance of financial institutions raise indigenous communities (LPD) and social welfare in the province of Bali by using explanatory quantitative method. Financial institutions raise indigenous communities (LPD) is selected because well-developed of LPD has been very significantly good financial aspect, the number of members, and their income. Based on it, I want to know if performance of LPD Bali has been affected by social capital factors because the have been developed very strongly in its community. The strength of social factors has been caused by values and norm internalization for strengthening the unity and integrating among the community groups. With using the SEM analysis, the result of the research is that social capital factors affect performance of LPD Bali. These factors comprise of highly solidarity and network in running institutional economy activities due to well.while, the improvement of social welfare not only occurs in financial but also social aspects.

Key word: performance, social capital
Design Internet of Thing Based Air Conditioner (AC) Monitoring System for Energy-Efficient Smart Home

I Made Karunia¹, Gede Nurhayata², Gede Suweken³, Kadek Yota Ernanda⁴
Aryanto
¹,²,³Universitas Pendidikan Ganesha
Singaraja, Indonesia

Abstract - In 2014, Indonesia was the most wasteful country in using electrical energy, especially Air Conditioner (AC) in ASEAN. This wasteful energy was caused by several things, such as the product, human factor, and the other factors. The purpose of this research is to solve one of the factors that is the lack of users’ knowledge about the abnormal condition of AC which causes the increase of the electricity consumption. In this case, we propose an AC monitoring system based on Internet of Thing. The system will always monitor the AC’s condition and every abnormal condition will be sent as a notice to user’s gadget. In this research, system design will be done only for one unit AC. The result could be used as reference for further development AC monitoring system.

Key words: AC, Monitoring, Internet of Thing
CIRCUIT TRAINING WITH INTERVAL RATIO IN DIFFERENT ALTITUDE ENHANCING MAXIMUM OXYGEN VOLUME

Made Budiawan
Sport Science Departement
Sport and Health Faculty
Ganesha University of Education-Bali

ABSTRACT

Abstract - The objectives of this research are to investigate: whether of effect between circuit training with interval ratio to enhance VO2 Max.; whether of effect between high and low altitude to enhance VO2 Max; whether a significant interaction of effect between circuit training with interval ratio and altitude to enhance VO2 Max. The result of the analysis at the significance level of $\alpha=0.05$ are as follow: VO2 Max taught with the circuit training with interval ratio 1:1 (mean=49.81) is better than that athletes taught with circuit training with interval ratio 1:3 (mean=43.21) as indicated by statistic value 7.234 with significance 0.002. VO2 Max with the high altitude (mean=50.05) is better than that of athletes with the low altitude (mean=44.54) as indicated by statistic value 146.905 with significance 0.000.9 there is significant interaction of effect between the circuit training with interval ratio and altitude to enhance VO2 Max is indicated by statistic value 12.342 with significance 0.001. Based on the result of the research, a conclusion is drawn that the proposed hypothesis are all verified.

Key words: circuit training with interval ratio, altitude, and VO2 Max.
Development of Marine Ecotourism as Tourism Development Model Base On Marine Ecosystem in Purpose to Empowering Coastal Communities and Marine Ecosystem Conservation in Buleleng Regency, Provinsi Bali.

Ida Bagus Jelantik Swasta
Marine Culture Department, Matematic and Natural Science Faculty Ganesha Education University.
swastajelantik@yahoo.com

Abstract - Cultural tourism development in Bali, include in Buleleng has been more produced negative impact in form commercialization of sacral cultural product and sacral religi sites. Thus, tourism in Bali, include in Buleleng very importance to developing various tourism alternative in order to the negative impact of cultural tourism can decrease. Related to this statement, very importance to study the developing an ecotourism base on marine ecosystem as one tourism alternative w hich design to decrease the negative impact of cultural tourism. The purpose of this research is to developing an model of ecotourism base on marine ecosystem in one purpose to empowering coastal communities and stimuate the conservation of marine ecosystem in Buleleng. This research is development research which have been done by Soegiyono development method which have nine steps it either; a) potensies and problem identification; b) data collecting; c) making of model design; d) validation of model design; e) revision of model design; f) model try out; g) revision of model; h) second model try out; i) model production. The data collecting used some methods there are observation, interview, and document investigation, but the data analysed by qualitative and quantitative descriptions. The results of this research are; 1) Buleleng have five kinds marine ecosystem which very marketable as tourism object it either coral ecosystem, mangrove ecosystem, sea grass ecosystem, neritic waters ecosystem, and sandy shore s ecosystem; 2) to developing all of that marine ecosystem become marine ecotourism need some strategies it either; a) tourism object development; b) contruction of ecotourism supporting facilities; c) preparing profesional human recources; d) efective and eficien marketing; e) support optimalization of local and
center government; f) development of regulation system; g) support generating of adjacent communities.

**Key Words**: Model, Ecotourism, Ecosystem, Marine

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**Removal of COD form Restaurant Wastewater by Electrochemical Oxidation with Multi Carbon Electrodes**

I Dewa Ketut Sastrawidana¹, I Nyoman Sukarta¹

¹,²Department of Chemistry
Universitas Pendidikan Ganesha
Bali, Indonesia

**Abstract**—The present investigation to study restaurant wastewater treatment using electrochemical oxidation technique with multi carbon electrodes. The experiments were carried out at room temperature in the electrochemical oxidation reactor which made from acrylic container with internal dimensions of length x width x height (50 x 35 x 25 cm). Eight carbon electrode with 10 cm of the distance between anode to cathode were partially immersed in reactor. A DC power supply of 12 Volt was employed for electrochemical degradation. A volume of 1000 cm³ of restaurant wastewater were placed in reactor and stirred constantly at a suitable speed to keep homogeneity of NaCl form table salt as supporting electrolyte distribution. The result showed that maximum COD removal efficiencies up to 80-85% for 60 min of electrolysis in containing 9 g/L commercial salt at pH 6. The multi carbon electrodes give high efficient to COD removal of restaurant wastewater.

**Key Words**: restaurant waste water, electrochemical oxidation, carbon electrode
Development of Indonesian Language Application Textbook in Higher Education Institution Oriented to Nation Character Education

I Nengah Suandi¹, I Nyoman Sudiana², I Gde Nurjaya³
¹,²,³Universitas Pendidikan Ganesha
Bali, Indonesia

Abstract- this 1st year development research aims to describe prototype and early draft of textbook oriented to nation character education. The activity plan undertaken are (1) conducting needs analysis; (2) developing prototype textbook oriented to nation character education; and (3) developing a draft of educational textbooks oriented to nation character education. Based on data analysis conducted, prototype textbook oriented to character education can be described as follows: (1) Development of textbook material pay attention to thematic approach, integrated, communicative, and pragmatic; (2) Language skills training that involves listening, speaking, reading and writing skills is done as a process, not just as a conceptual product; (3) Any language training modules and languages skills training are oriented to the values of character education; (4) Character education is manifested by a choice of themes in Indonesian language skills practice; (5) There is a need to internally and externally cohesion in skills training in Indonesian language. Based on those prototypes above, draft textbook is developed consisting of 10 chapters, namely (1) Research and Development of Indonesian Language; (2) The Position and Function of Indonesian Language; (3) The Variety of Indonesian Language; (4) Standard Indonesian Language as a Benchmark of Language Errors; (5) Application for Improved Indonesian Language Spellings; (6) Language Politeness; (7) Listening Skills; (8) Speaking Skills; (9) Reading Skills; and (10) Writing Skills.

Keywords: textbook, character education
Development of Web-Based Peer Assessment

Komang Setemen¹, Luh Joni Erawati Dewi², I Ketut Purnamawan³
¹,²,³Informatic Management Department, Faculty of Technical and Vocational, Universitas Pendidikan Ganesha
k.setemen@undiksha.ac.id

Abstract— The purpose of this study is to develop a web-based peer assessment system. This research is about the development of learning assessment that adopted 4D model (Define, Design, Develop and Disseminate). This study was conducted for two years. The first year is the Define and Design phase, which aims to design a web-based peer assessment prototype. In this first year is held, (a) needs analysis, potential and support identification and (b) the design of the model and its equipment. The second year is the Develop and Disseminate phases which basically aims to develop models and devices that are valid and reliable. This is done through two activities. The first activity is the testing of the model and the device is in small group. The second activity is conducted experimental test to test the advantages of the model and see the effectiveness of the use of the model.

Keywords: web-based system, peer assessment, 4d model
MOBILE-LEARNING DEVELOPMENT FOR SUPPORTING CHEMICAL LEARNING APPROACHES CHEMICAL USING FLIPPED CLASSROOM STRATEGY

I Made Tegeh¹, Ida Bagus Nyoman Sundria²
¹,²Universitas Pendidikan Ganesha
imadetegehderana@yahoo.com

Abstract—This study aims to develop mobile learning (M-learning) learning chemistry to support the flipped classroom in order to solve the problem of less implemented scientific approach. M-learning is developed using the Learning Management System (LMS) Moodle that can be accessed by teachers and students using a laptop or mobile phone. The study was conducted for three years. The first year's research focused on making M-learning prototypes on high-class X chemistry topics. Research in the second year was a limited trial to improve the prototype of M-learning. Limited trials were conducted on one class, which is utilizing M-learning on chemistry learning using a scientific approach delivered in a flipped classroom. In year 2 also developed M-learning on 5 other chemical topics, resulting in M-learning on 6 topics of class X high chemistry. Research year 3 is a broad field trial of a pilot program at partner schools.

Key words: mobile learning, chemical learning, flipped learning
Exploration in Geometry Classroom for Better Understanding of Concepts

Sariyasa
Ganesha University of Education
sariyasa64@yahoo.com

Abstract— This study focused on the development of geometry teaching material as an effort to strengthen geometry concepts of junior high school teachers. The material being developed is exploratory in the sense that the material is supplemented with the GeoGebra-based media that provides exploratory and investigative activities. By means of the media, students are given chance to explore and investigate so that they can construct concepts and properties of geometry figures. It is found that conducting instructional process in this way establish a meaningful learning and facilitate students with various characteristics.

Key words: teaching aid, meaningful, exploratory, investigation, geogebra
Attendance system based on face recognition use orthogonal laplacianface method on Raspberry-Pi

Ni Wayan Marti¹, A.A. Gede Yudhi Paramartha², Kadek Yota Ernanda Aryanto³
¹,²,³Informatic Management
Universitas Pendidikan Ganesha
Singaraja-Bali, Indonesia
wayan.marti@undiksha.ac.id, yudhi.paramartha@undiksha.ac.id,
yota.ernanda@undiksha.ac.id

Abstract—Aim of this work was to develop the prototype of attendance system based on a realtime face recognition method. The embedded system was installed within a Raspberry-pi device, running a Raspbian operating system. The system was developed using a combination of eigenface and orthogonal laplacianface methods for feature extraction steps. The system was trained using 40 (forty) set of faces where each set has 10 (ten) face images containing different face expressions and accessories, such as eyeglasses. Testing phase was done by presenting all forty persons, whose data were taken for training set, in front of the system camera. From the results of these trials, the accuracy of the attendance system is 87.5\%. It had shown that a combination of eigenface and orthogonal laplacianface methods had performed an acceptable level of face recognition system under a low-cost device of Raspberry-Pi.

Keywords—Face Recognition, Attendance System, Raspberry-Pi, Orthogonal Laplacianface
Cross-Cultural [Mis-]Understanding in Tolkien’s

*The Hobbit*

Ni Komang Arie Suwastini¹, Ni Wayan Surya Mahayanti², Sayu Qamariyya³

¹,²,³Department of English Education
Faculty of Language and Arts
Universitas Pendidikan Ganesha
Singaraja, Bali, Indonesia
arie.suwastini@undiksha.ac.id, surya.mahayanti@undiksha.ac.id,
28sysy@gmail.com

*Abstract*— As the border between nations and ethnicities grows more permeable, the need of deeper insights of the multicultural conditions in the society grows stronger. The present paper relates this observation with the a textual reading of Tolkien’s *The Hobbit* to reveal how multicultural conditions are represented in the characterization of the main character, the plot development and the settings of the novel. The main character is revealed to have firm personality with strong curiosity and adventurous nature while at the same time very polite and helpful toward members of other races. The plot development shows a growing collaboration among the good races to fight the bad races, which was built across kingdoms. Thus, while the novel strongly suggests that people of different kingdoms and races should collaborate to built strong society, the novel still hold a prejudiced opinion that certain races are bad because they are inherently bad.

*Keywords*— multicultural conditions; representation; characterization; plot; settings
Design and Development of Web-Based Digital Announcement by using Microcomputer (Case Study Department of Electrical Engineering Undiksha)

Ketut Udy Ariawan
Department of Electrical Engineering
Faculty of Engineering and Vocational
Ganesha University of Education
Singaraja, Indonesia
udyariawan@gmail.com

Abstract—In the digital age, bulletin boards migrated from conventional to digital forms, so the term digital signage is known. Along with the rapid development of technology, the use of desktop computers began to be replaced with microcomputer (Raspberry Pi or Raspi). One of the digital signage applications that support the process of making digital and web-based announcement board is XIBO which is open source. In this research, the process of making digital announcement board is done by making a network system consisting of software composition (XIBO, Web Hosting, and Internet) and hardware (Raspi and TV Plasma). XIBO application used consists of XIBO Server to install on web hosting and XIBO Client to install on Raspi, so information can be displayed then Raspi connected with a Plasma TV. The results of this research will be expected to contribute to the means of delivering information digitally, especially in the field of advertising.

Keywords—Digital Signage; XIBO; Raspberry Pi; Web Hosting
THE IMPORTANCE OF QUESTION BASED THEMATIC INTEGRATED BOOKLET FOR REPRODUCTIVE HEALTH EDUCATION IN PRIMARY SCHOOL

Putu Budi Adnyana¹, Desak Made Citrawathi¹
¹,²Universitas Pendidikan ganesha
Singaraja, Bali Indonesia

Abstract—Reproductive health education is very important for primary school. Providing the right information can help students have a positive attitude as well healthy and clean life behavior to their reproductive system. The result of the preliminary study conducted at primary schools of Buleleng subdistrict, Bali shows that: 1) materials for reproductive health education are required for students; 2) reproductive health education can be integrated in themes according to the primary school curriculum; 3) principals, teachers, and parents agree to provide reproductive health education in accordance with students development; 4) there is no educative media to provide reproductive health education; and 5) question based integrated thematic booklet is required to understand reproductive health in primary school.

Keywords: question based thematic integrated booklet, reproductive health education
BIODIESEL PRODUCTION FROM COOKING OIL USING LIPASE PRODUCING *Saccharomyces cerevisiae* IMMobilIZED WITHIN ZEOLITE

I Nyoman Tika  
Departement of Chemistry  
Faculty of Matematic and Natural Sciences  
Universitas Pendidikan Ganesha  
Jalan Udayana No. 11 Singaraja Bali Indonesia

Abstract— Biodiesel production from cooking oil was investigated using whole-cell biocatalysts. *Saccharomyces cerevisiae* cells immobilized within zeolite were used as biocatalysts for biodiesel production. The effects of reaction parameters such as methanol-to-oil molar ratio, water content, and temperature for the production of biodiesel through methanolysis in a packed-bed reactor (PBR) were studied. Molar ratio of methanol-to-oil 12:1, water content 15%v/v, cell concentration 20% and temperature 35°C were found to be the optimum. The yield of biodiesel obtained in batch methanolysis from cooking oil under optimized condition was 90%. Long-term stability of immobilized cells for methanolysis was verified using reusability studies.

*Keywords*: biodiesel, cooking oil, *Saccharomyces cerevisiae*
Document Image Analysis of Palm Leaf Manuscripts

Made Windu Antara Kesiman¹, Jean-Christophe Burie², Jean-Marc Ogier³
¹,²Laboratoire Informatique Image Interaction (L3i)
University of La Rochelle
La Rochelle, France
{made_windu_antara.kesiman, jcburie, jean-marc.ogier}@univ-lr.fr

Abstract—One very valuable cultural heritages that are found in Southeast Asia is the collection of palm leaf manuscripts. Ancient palm leaf manuscripts store various forms of knowledge and historical records of social life in Southeast Asia. But unfortunately, the physical condition of natural materials from palm leaves certainly cannot last long and certainly cannot fight time. Usually, palm leaf manuscripts are of poor quality since the documents have degraded over time due to storage conditions. The ancient palm leaf manuscript is written on a dried palm leaf by using some sort of sharp pen or small knife, which is then scrubbed with natural dyes. Due to these specific characteristics, ancient palm leaf manuscripts are providing new challenges in document analysis. The automatic analysis of these documents, in order to extract relevant information, is a real challenge. Balinese palm leaf manuscripts offer a new challenge in OCR development due to the physical characteristics and conditions of the manuscripts. The palm leaf manuscripts contain discoloured parts and artefacts due to aging and low intensity variations or poor contrast, random noises, and fading. Several deformations in the character shapes are visible due to the merges and fractures of the use of nonstandard fonts, varying space between letters, and varying space between lines. This research develops a document image analysis system for document images of palm leaf manuscripts that includes several image processing tasks, beginning with digitization of the document, ground truth construction, text line and glyph segmentation and ending with glyph recognition. An appropriate system to transliterate the Balinese script to the Roman script is also developed.

Keywords—document image analysis; palm leaf manuscript; low quality document image; ground truth construction; text line segmentation, glyph recognition, transliteration
THE EFFECTIVENESS OF DISCOVERY LEARNING MODEL WITH PORTOFOLIO ASSESSMENT IN DEVELOPING STUDENTS’ SCIENTIFIC ATTITUDE AND SCIENCE ACHIEVEMENT

I Wayan Suastra\textsuperscript{1}, Ni Putu Ristiati\textsuperscript{2}
\textsuperscript{1,2}Universitas Pendidikan Ganesha, Bali, Indonesia.

Abstract—The purpose of this study was to test the effectiveness of discovery learning model with portofolio assessment in developing students’ scientific attitude and science achievement. Quasi-experimental study design with posttest only control group design was conducted with 68 students in class VII SMP Negeri 2 Kuta Badung. Data on students’ scientific attitude was measured questionnaire and the science achievement measured by objective test. The data students’ scientific attitude and science achievement were analyzed using descriptive and MANOVA were used to verify hypothesis. Based on the results of data analysis, it can be concluded that the discovery learning model with portofolio assessment (authentic assessment) is more effective than the discovery learning model with essay test (conventional assessment) in developing students’ scientific attitude and science achievement.

Keywords: discovery learning model, scientific attitude, science achievement.
The Effect of Online Exercise toward the Junior High School Students’ Mathematics Achievement

I Gusti Putu Sudiarta¹, I Nyoman Sukajaya²
¹,²Universitas Pendidikan Ganesha
Singaraja, Indonesia

Abstract—Online exercising and testing now become popular in mathematics teaching and learning. It is useful for confirming students’ understanding of the learning mathematics. The purpose of this mixed methods study was to determine the effect of online exercise toward junior high school students’ mathematics achievement and to analyze the students and teacher responses. Quasi-experimental, control group post test only designs were employed to measure the effect for 686 students in two schools, SMPN 1 Negara (396 students) and SMPN 1 Gianyar (290 students). Analyses of student and teacher post session commentary were also conducted. The findings suggest that the online math exercise contributed to statistically significant gains in student scores post intervention. The student perceptions of the online math exercise were predominantly positive in nature. The teacher described the online math exercise as a meaningful strategy to improve the students’ curiosity and motivation.

Key Words: Online Testing, Blended Learning, Mathematics Achievement, Students Motivation
Using Backup and Restore Automation from Disaster in University Information Systems

Johanes Fernandes¹ Andry, Honni²
¹Faculty Technology and Design
²IEEE Member: 92626876
Faculty Technology and Design,
Bunda Mulia University
Jl. Lodan Raya No. 2 Ancol, North Jakarta 14430
jandry@bundamulia.ac.id¹, honni@bundamulia.ac.id²

Abstract— For information system users in university, especially for those who work daily and frequently which deals with storing data in the computer, the computer should be aware of sudden “disaster”, such as virus, due to system failure. When “disaster” happens, it can hide or even lose the data or files in the computer. Backup is needed to prevent the loss of data when the computer is attacked by “disaster”. It is highly recommended for organizations even individuals to do data backups on a regular basis. It is important in order to avoid the loss of important data when the disaster hits. While restore is to bring back the system to a certain point before. This paper proposes an application to automate the process of backup and restore called “SIPINTAR” which ensures that the data is stored properly and safely. The results are useful for helping individuals and organizations to protect their computers from system failure or other “disaster”.

Keywords— Information Systems; Back up; Restore; Disaster
The Importance of Physics Text Book in Connecting Concepts and Principles with Character Values and Social Attitude as well as Spiritual Attitude

I Wayan Santyasa¹, I Wayan Suastra², I Gede Astawan³
¹,²Physics Department
³Elementary Teacher Education
Universitas Pendidikan Ganesha
Singaraja, Indonesia
¹santyasa@undiksha.ac.id, ²iwsuastra@undiksha.ac.id
³astawan@undiksha.ac.id

Abstract—Physics textbooks until now only contain a tangle of concepts and principles. This study aimed to describe the importance of linking physics concepts and principles in textbooks with character values, social and spiritual attitudes. This research was conducted in 27 SMAs from 9 Regencies in Bali. Its subjects are 27 principals of the SMAs, 54 physics teachers, and 540 SMA’s students. The responses of the subjects to the developed physics textbook were collected by questionnaire and analyzed descriptively. The results of the analysis showed that the physics concepts and principles in the textbooks are very important to connect with associated character values, social and spiritual attitudes. The Principals and teachers said that these are needed as a medium of learning physics which are meaningful for the students in order to be able to construct good character as well as good social and spiritual attitudes. So physics textbooks become meaningful.

Keywords—physics textbooks, concept and principle, character values, social attitudes, and spiritual attitudes
Tourism Destination Image of Bali According to European Tourist

Utama, I.G.B.R.
Dhyana Pura University, Hospitality Management Department
Bali, Indonesia
raikutama@undhirabali.ac.id

Abstract—This research was conducted in the province of Bali which aims to determine the attraction factors as the main attraction of tourism Bali from perspective of European, and also to determine the factors that predominantly determine European travel to Bali. The research was designed by using research survey that involving 167 European tourists. Exploratory factor analysis techniques are used to analyze a wide range of variables Balinese charm. The main attraction of tourism Bali are (1) the immigrations, security of destinations, and travel agencies, (2) the prices, the accommodations, foods and transportations, (3) the history, culture, and natural beauty. While the most dominant factors in determining European tourists traveled to Bali are immigrations, security destinations, and travel agencies. The study's findings also indicate that the images of Bali tourism are the destination's history, culture, and nature.

Keywords—destination image, charm, history, culture, scenery, European tourists
Nawa Sanga Conspiracy: Secrets Behind Ancient Balinese Emblem of Unity An Ethnographic Study

Ida Bagus Arya Lawa Manuaba\textsuperscript{1}, Ida Ayu Made Istri Utami\textsuperscript{2}
\textsuperscript{1}STKIP Suar Bangli
\textsuperscript{2}Universitas Pendidikan Ganesha
\textsuperscript{1}Bangli, Indonesia
\textsuperscript{2}Singaraja, Indonesia
\textsuperscript{1}tharsisfactor@yahoo.com, \textsuperscript{2}istriutami@undiksha.ac.id

Abstract— The aims of the study were (1) to track the origin of \textit{Nawa Sanga} symbolism in ancient Balinese society, (2) to discover the history behind the usage of \textit{Nawa Sanga} symbolism, and (3) to analyze the actual philosophy of \textit{Nawa Sanga} symbolism to the ancient Balinese. The research design used was descriptive-qualitative with ethnographic method which mainly involved the analysis of cultural aspects in ancient Balinese religious texts and chronicles. Data range involved prominent Balinese ancient religious texts and \textit{babad} (chronicle texts). Data collecting techniques used were document analysis and observation. The result of the study showed that (1) the \textit{Nawa Sanga} symbolism in ancient Balinese society came from the Saivite teachings dating in the same period as Majapahit Empire fell down, (2) the \textit{Nawa Sanga} symbolism was formulated during the Waturenggong period to politically unify the Balinese society, and (3) the actual philosophy behind \textit{Nawa Sanga} symbolism was not religious, but political.

Keywords—Nawa Sanga, Balinese society, babad.
The Mapping of Rare Plant Species Distribution and The Distribution Pattern in The Village Forest of Penglipuran, Bangli, Bali, and The Implication As A Biology Learning Media

Nyoman Wijana¹, I Gusti Agung Nyoman Setiawan²
¹,²Department of Biology Education
Universitas Pendidikan Ganesha
Singaraja, Indonesia

Abstract—The aims of this research were to produce a map of rare plant species distribution the village forest of Penglipuran, Bangli, Bali; to acknowledge the distribution pattern of rare plant species in the village forest of Penglipuran, Bangli, Bali; and the implication of the field study results as a learning media. This research was an explorative and descriptive research. The populations of this research were the mapping area and the rare plant species. The research samples were the mapping area taken from all forest border and the rare plant species were rare plants covered in the square. The mapping technique used was simple measurement technique refers to Soenaryanto (1976). Sampling technique for rare plant species was systematic sampling. The data analysis was done descriptively and using ecology statistic. The results of this research showed that the composition of rare plant species in the village forest of Penglipuran consisted of 21 families with 34 species; 17 out of those 34 species were categorized as rare plants; the mapping result showed the distribution of rare plant species was narrow, medium and wide in the forest area; the distribution pattern of these rare plant species was clump distribution pattern; and the results of this field study, related to the rare plants, could be used as a biology learning media in their natural environment,

Keywords—Mapping, Rare Plants, Village Forest, Penglipuran Village
The Concept of Pedagogical Content Knowledge (PCK): Recognizing the English Teachers’ Competences in Indonesia

Ummi Kultsum
Faculty of Education, Science, Technology and Mathematics (ESTEM)
University of Canberra, Australia.
Ummi.Kultsum@canberra.edu.au
ummiKultsum@uinjkt.ac.id

Abstract-- This article discusses the concept of Pedagogical Content Knowledge (PCK) in Indonesian school context. The PCK is described as the basic skill for teachers in order to develop their teaching quality and strategy. The focus of the discussion is in the English teaching strategy in Indonesia. The review found that PCK on English teachers in Indonesia needs to be improved especially in pedagogical knowledge of teaching strategy and knowledge of learners. It is recommended that the control and evaluation from government and other stakeholders would maintain the quality of teachers. Furthermore, the competencies would be more magnificent when teachers emerge the dedication and commitment in their profession.

Keywords—PCK concept; content knowledge; pedagogical knowledge; English teacher’s competences
Coral Bleaching on Lembongan Island, Nusa Penida, Bali

I Nyoman Dodik Prasetia\(^1\), Sutrisno Anggoro \(^2\), Supriharyono \(^3\), Lachmuddin S. \(^4\)

\(^1\)Jurusan Budidaya Kelautan
\(^2,3,4\)Program Doktor Manajemen Sumberdaya Pantai
\(^1\)Universitas Diponegoro
\(^2,3,4\)Universitas Pendidikan Ganesha
\(^1\)Singaraja, Indonesia
\(^2,3,4\)Semarang, Indonesia,

indprasetia@gmail.com\(^1\)
sutrisno.anggoro@yahoo.co.id\(^2\), pries1950@gmail.com\(^3\),
lachmuddin.undip@gmail.com\(^4\)

Abstract—The objective of this study was to determine the extent of coral cover that experienced coral bleaching and its impact on coral reef ecosystem. The study was conducted from 2015 to 2016, using manta tow survey method and line intercept transect. Research showed that life coral covering equal to 63 – 91%. Coral bleaching occurs 27.51% at depths of 3 meters and 17.72% at a depth of 10 meters in June 2016. Coral bleaching consisted of branching coral and massive corals. Reef recovery occurred in November 2016.

Keywords—Coral bleaching, Lembongan Island, Coral reef ecosystem
Do Japanese Mothers Talk Differently to Daughters than Sons?: A Study of Bikago (Beautified Speech)

Kadek Eva Krishna Adnyani
Japanese Language Education Department
Universitas Pendidikan Ganesha
Singaraja, Indonesia
krishna.adnyani@undiksha.ac.id

Abstract—Japanese is well known for its gendered speech style which denotes the sex of the speaker. These speech styles are reinforced throughout their formative years. This study analyzed (1) how Japanese Mothers in Bali use bikago (beautified speech) especially in child-directed speech; and (2) to investigate the factors that influence the use of bikago by Japanese mothers when talking to their daughters. The research was conducted between January until February 2016, involving two Japanese mothers who stayed in Bali with their children. The data were collected through observation by using tape-recorder. The data were then analyzed qualitatively and revealed that (1) Japanese mothers tended to use bikago more frequently when talking to their daughter as compared to when they spoke to their son, and (2) mothers used bikago when talking to their daughters to boost the daughter’s refined language skill.

Keywords—bikago, Japanese language, Japanese mother, refined language skills.
Developing Creative Economy for Community Learners in Supporting Tourism in Tembok and Abang Village, Bali

I Ketut Sudita\(^1\), Dewa Nyoman Sudana\(^2\), Nengah Suand\(^3\), Dewa Bagus Sanjaya\(^4\)
\(^1,2,3,4\)Universitas Pendidikan Ganesha
Singaraja, Indonesia
\(^1\)ketut.sudita@undiksha.ac.id, \(^2\)dewanyoman.sudana@undiksha.ac.id.
\(^3\)nengah.suandi@undiksha.ac.id, \(^4\)bagus.sanjaya@undiksha.ac.id

Abstract—Community group learners are a community group that sets an example and deserves to be given a priority in a program for strengthening and extending economy, especially in Bali province. Departing from this idea, this study was aimed (1) to produce an innovative design for handicrafts (creative economy) for community group learners which matches their existing potentialities, (2) to produce a creative economy strategy at a larger scale. The results of this study showed that the craftsmen had been able to produce various handicrafts such as laptop baggage, \textit{sokasi} (bamboo basketwork used for holding rice), ballpoint stand, bamboo basket or tray for keeping offerings with a variety of designs. Community learners were able to develop product to meet the market conditions and demands and were able to develop a larger network, with the local government, universities, and businesses.

Keywords—community learners, creative economy, tourism
Implementing *Sadguna* –Based Character Teaching Model in Civics Education at Junior High School Laboratorium Undiksha

I Nengah Suastika¹, Dewa Bagus Sanjaya²

¹,²Universitas Pendidikan Ganesha
Singaraja, Indonesia
Suastikainengah85@yahoo.com, gussanjaya14yahoo.co.id

**Abstract**—This study was aimed at; (1) analyzing and formulating a synthetic local genius-based character teaching model and (2) analyzing a limited trial result of local genius-based character teaching model. This study was an adapted classroom action research using observation guide, interview guide, learning achievement test and documentation study as the research instruments. The syntax of this local genius–based character teaching model was developed based on *sadguna*. *Sadguna* comprises *sandhi, jana, sana, srya, wirgha* and *wisesa*. This local genius-based character teaching gives more stress on cooperation process to produce knowledge, attitude, and moral skill. The results showed that the syntax of the model is very easy to apply and to understand by the students because it is very familiar for them. Students’ learning achievement also showed an increase in moral knowledge and moral attitude.

**Keywords**—character teaching model, sadguna based
Enhancing Students’ Resilience: Comparing The Effect of Cognitive-Behavior And Strengths-Based Counseling

Kadek Suranata¹, Adi Atmoko², Nur Hidayah³
Faculty Of Science Education, Guidance and Counseling Department
¹Universitas Pendidikan Ganesha
²,³Universitas Negeri Malang
¹Singaraja, Indonesia
²,³Malang, Indonesia
¹sura@konselor.org, ²adi.atmoko.fip@um.ac.id, ³nur.hidayah.fip@um.ac.id

Abstract—This randomized control trial study was aimed to compare the effect of cognitive-behavioral counseling and strengths-based counseling models towards the resilience students. The 99 students participants of the study were assigned randomly into three different conditions as follows; 32 students in cognitive-behavioral counseling group; 33 students in the strengths-based counseling group; and 34 students as the waiting-list control. The data was gathered by using the 14 items of the psychological resilience scale. The data of the study was analyzed using RM-ANCOVA. The results of the study indicated that: (1) there are statistically significant of enhancing the resilience of both participants in cognitive-behavioral counseling and strengths-based counseling group, and (2) the resilience of the students in the cognitive-behavioral counseling group is significantly higher than students in the strengths-based counseling group or in the waiting-list control group. The conclusion is that the cognitive-behavioral counseling is more effective than the strengths-based counseling model.

Keywords—resilience; school counseling; cognitive-behavioral counseling; strengths-based counseling.
The Effect of Javanese Language Philosophical Aspect on the Society’s Communication Pattern in Indonesian Language

Tri Wahyono¹, Toriq Pratama²
Mechanical Engineering Department, Faculty of Engineering
Language Training Center
¹,²Universitas Muhammadiyah Yogyakarta
¹wahyonotri25@gmail.com, ²toriqpratama2016@gmail.com

Abstract- The pattern of communication in the Indonesian language in society is beginning to ignore the aspect of respect for the hearers. This paper aims to determine the effects of understanding the philosophical aspects of Java language to the pattern of society communication in the Indonesian language. Descriptive data obtained in this paper through observation and theoretical study of the language phenomenon and communication patterns in society. The analysis process is done theoretically and descriptively and through the process of language comparison. The results show that understanding the meaning of Javanese philosophy influenced the communication pattern of the people in using the Indonesian language in terms of words or phrases and words. The influence of the meaning of the philosophy comes in the form of changes in the word meaning and the mention pronouns in communicating.

*Keywords: aspects of Javanese philosophy, communication patterns*
SIsKA: Mobile Based Academic Progress Information System

G. Indrawan¹, G.T. Heriawan², A.A.I.I. Paramitha³, G. Wiryawan⁴, G.B. Subawa⁵, M.T. Sastradi⁶, K.A. Sucahyana⁷
Department of Computer Science, Graduate Program, Universitas Pendidikan Ganesha, Bali, Indonesia
¹gindrawan@undiksha.ac.id; ²gedeteguhheriawan@gmail.com; ³agi.itaparamitha@gmail.com; ⁴igdw@windowslive.com; ⁵gdbendesa.subawa@gmail.com; ⁶trisnasastradi@gmail.com; ⁷sucahyana.ari@gmail.com

Abstract— The academic process of the graduate program in Universitas Pendidikan Ganesha (Undiksha) generally consists of lectures, proposal seminar, pre-thesis and thesis examination. Management process which monitors academic progress is required because every academic process requires conditions to be fulfilled by the students. The research focuses on making a mobile based academic information system named Academic Progress Information System (SIsKA). SIsKA is designed by using Data Flow Diagrams (DFD) and Entity Relationship Diagram (ERD) with six tables in the database. Initially, this system requires input which is in the form of data requirement for the thesis, then the head of the administrator, can start designing the schedule from each stages. The evaluation of SIsKA mobile applications was carried out by allowing 30 Computer Science Students to use it. Feedbacks were obtained from user using a simple questionnaire. The overall rating for the system is 4.22. Overall evaluation of the product lies between good and very good. In the future, SIsKA will continue to develop to accommodate submission deadline mechanism and more advanced scheduling requirement, like parallel session.

Keywords— Academic Progress; Information System; mobile; web
The Local Wisdoms in Bahasa Indonesia Text Books in a Primary Class: Ethnopedagogy Study

I.W. Rasna¹, D.K. Tantra²
¹, ²Faculty of Language and Arts
Universitas Pendidikan Ganesha
Singaraja, Bali
wayanrasna@ymail.com, dewatantra@yahoo.com

Abstract—This study aimed at producing an integrated thematic book in terms of Indonesian Language and Literature for grades I and II with local Balinese wisdoms. Therefore, in year 1, exploration of themes / subthemes of the materials were conducted. In year 2, the draft plan was developed into a draft of the book. In year 3, the draft of the book was tested from the validity of experts, content, design, and media. Users’ responses were based on field testing. The methods of data collection were questionnaire, observation, interview, and test. The results showed that: (1) integrated thematic book with sustainable local of Bali was qualified as a textbook. (2) The validity (experts, content, design, and media) was qualified as valid. Students’ understanding valued 75 (good). Thus, this thematic book was qualified as teaching materials.

Keywords—language; Indonesia; local wisdom; ethnopedagogy
Developing Problem-Based Module to Train Life Skills In The Field Of Adolescent Reproduction Health

Desak Made Citrawathi\textsuperscript{1}, Putu Budi Adnyana\textsuperscript{2}  
\textsuperscript{1, 2}Department of Biology Education  
\textsuperscript{1, 2}Faculty of Mathematics and Natural Sciences, Ganesha University of Education  
Singaraja, Indonesia  
dskcitra@gmail.com

Abstract—Nowadays, adolescents are facing issues of sexual and reproduction health which is known as Three Basic Threat of Adolescent Reproduction Health, and are called Triad KRR. In order to handle the risk, adolescents should acquire life skills in the field of reproduction health. The aim of this research were to produce problem-based module to teach life skill in field of adolescents’ reproduction health and students’ life skill after using the module. The study was a development research, conducted at Junior High School. The result showed that this module could be used to teach life skills in the field of adolescents’ reproduction health. The students’ learning mean score by using this module were: problem solving skill was 7.9; thinking skill was 7.8; and interpersonal communication skill was 7.9, which all of them were categorized as good.

Keywords—problem based module, life skill, reproduction health
Developing School Management Model Based on Balinese Local Wisdom

A.A. Gede Agung¹, I Gusti Putu Sudiarta²
¹Dept. of Educational Technology,
²Dept. Mathematics Education
¹,²Ganesha University of Education
Singaraja, Indonesia
agung2056@yahoo.co.id¹, gussudiarta@undiksha.ac.id²

Abstract—The multidimensional disharmony, such as various kinds of violence still occur in our schools today. The subjects were not only students but also teachers, principals, employees, even parents. Several approaches have been tried to solve this problem. A legal approach such as Permendikbud 82/2015 had been issued by the Indonesian Minister of Education and Culture to regulate the prevention and countermeasures of violence in education. It had even been also proposed for schools to create a violence prevention task force. From all of these approaches, neither holistic, systemic, and systematic approach based on comprehensive pedagogical foundations, nor strong local wisdom concept has been adopted in school management practices. The purpose of this article is to describe a school management model based on balinese local wisdom and culture in order to build character, culture, and harmony in the school. Some principles and concepts of balinese local wisdom and culture was proposed to serve as the foundation of school management model.

Keywords—School Based Management, School Culture, Character, Local Wisdom, Balinese Culture
ONLINE TEACHERS COMMUNITY

I Made Candiasa¹, Ni Made Sri Mertasari²
¹, ²Mathematics Education Department
¹, ²Ganesha University of Education
Singaraja, Indonesia
candiasa@undiksha.ac.id, srimertasari@undiksha.ac.id

Abstract—Access extension and quality improvement in education is an issue that must be addressed immediately. The government makes every endeavor to do its best, but the results are not optimal because it faced several obstacles, such as geographical, social economic and local government revenue differences. One solution that has been developed is a website named online teacher community which can facilitate the process of sharing information on the instruction. This research aimed to evaluate the effectiveness of online teacher community website. The results showed that online teacher community website could act as a medium of learning for sharing information among the teachers and become an effective medium of learning for the students. This medium could build communication link among teachers not only in one district/city, but also across districts/cities and even across the provinces. In addition, the medium could be used as a medium for school’ self-evaluation so the schools could compare themselves with other schools in the quality of the instruction. Such mechanisms are expected to be able to encourage the extension of access and quality improvement in education.

Key Words: online teacher’s community, access extension, quality improvement
Prototype Development of Garsupati: A Single Access to Open Educational Resources

I Ketut Resika Arthana¹, I Made Putrama², Harry Budi Santoso³, Zainal Arifin Hasibuan⁴

¹,²Department of Informatics Technology Education, Faculty of Engineering and Vocational, Universitas Pendidikan Ganesha, Singaraja Indonesia
³,⁴Digital Library & Distance Learning Lab, Faculty of Computer Science, Universitas Indonesia

¹resika@undiksha.ac.id, ²made.putrama@undiksha.ac.id,
³harrybs@cs.ui.ac.id, ⁴zhasibua@cs.ui.ac.id

Abstract—nowadays there are many stakeholders to provide content learning and courseware on their website with their platform. They use various platforms such as Open Course Ware (OCW), Learning Management System (LMS), Open Journal System and other website with custom development. The problem from current condition is the user must visit this each website to searching content learning or courseware. This activity made user wasting their time because there are no single access to OER. Another problem is no definition of the relationship between learning content. One of issue on OER is lack of learning content resources and guarantee quality of content. On this research, we address this problem with develop prototype portal Garda Sumber Pembelajaran Terbuka Indonesia (Garsupati) to give single access to Open Educational Resources (OER). On Garsupati, users can search and view learning content and courseware, give rating and comment to evaluate learning content, contribute learning content and courseware. To enrich collection on Garsupati, apart from using user’s contribution, Harvesting and Crawling techniques are used to collect the metadata of learning content and courseware. The scope of current research is until the prototype development of the Garsupati.

Keywords : OER, Garsupati, Learning Content, Harvesting and Crawling
Harmony between Chinese and Balinese Ethnics in Bali

I Gusti Made Aryana
History Department
Universitas Pendidikan Ganesha
Singaraja, Indonesia
gustimadearyana@ymail.com

Abstract - This article analyzed the harmonious relations between Chinese and Balinese ethnics in Pupuan Village, Tabanan, Bali by relating the existence of the other ethnicity with the local wisdom based on the ideology of Tri Hita Karana. The data were collected through in-depth interview, observation, and documents study and were analyzed by interactive analysis model using critical social theory. The study revealed that the harmony between the two ethnicities was strongly influenced by the Tri Hita Karana concept actualized through equal social relationship, acculturation, and assimilation. Although the possibility of conflict between ethnic and religion happened, the social interaction between the two ethnics showed the cultural endurance that can be used as a prototype of diversity in Indonesia in the degradation of national values.

Keywords: Ethnicity, Harmony, Local Wisdom, Tri Hita Karana.
LEARNING WHILE HELPING: A CULTURE BASED COOPERATIVE LEARNING MODEL FOR VOCATIONAL EDUCATION

Nyoman Santiyadnya¹, I Made Candiasa², Gusti Ketut Arya Sunu³
¹Electro Education Department, ²Mathematics Education Department, ³Civic Education Department
¹,²,³Ganesha University of Education
Singaraja, Indonesia
¹santiyadnya@undiksha.ac.id, ²candiasa@undiksha.ac.id,
³arya.sunu@undiksha.ac.id,

Abstract— Vocational education prioritizes learning outcomes in the form of skills, so that graduates are ready to work. The applied learning model must be carefully selected in order to produce optimal skills. This research tries to develop cooperative learning model of learning while helping type adopted from culture-based learning model. The learning model has been proven capable of producing many skilled workers in various fields, carpentry, agriculture, animal husbandry, or fisheries. The results of observations and interviews show that the learning process occurs informally during the cooperative process based on the principle of interdependence. The junior worker learns while helping a more senior worker. Senior workers also learn while helping supervisors. Thus the process takes place continuously. Once a junior worker becomes a senior worker and re-recruits junior workers. While senior workers become supervisors and accompany other senior workers. The learning model can be implemented in vocational schools by preparing workshops according to the skills they want to learn. Students learn from the lowest level of skills then gradually increase to the highest level of skill. The process of tiered coaching from senior to junior occurs continuously. Teachers act as supervisors and facilitators. This learning model more guarantees the alignment of process in the learning of skills, attitudes, and behavior, so that the competencies and character of the graduates are more integrated.

Keywords—learning while helping, culture-based, vocational education
The Implementation of Big Book as Media to Teach Reading Comprehension for the Sixth Grade Students of Elementary School

Ni Wayan Surya Mahayanti¹, Ni Ketut Ayu Asrina²

¹,²English Education Department
¹,²Universitas Pendidikan Ganesha
Singaraja, Indonesia

¹mahayantisurya@yahoo.co.id, ²ayuasrina516@gmail.com

Abstract—Since big book becomes one kind of tools which can facilitate students' comprehension during reading stories activities conducted by teachers, this study aimed to know the implementation of Big Book in improving students' reading comprehension of the sixth-grade students. Descriptive Qualitative was used with the sixth-grade students as the subject in this study. The instruments used in this study were a video recorder, teacher's diary, and interview guide. The data were collected through observations and interviews. The result of this study showed that the implementation of Big Book was very helpful for improving students' reading comprehension.

Keywords—big book, media, reading comprehension, young learner
A Collaboration Between Linguistics and Genetics: Tracing the Bajo Diaspora History in Eastern Indonesia

Philippe Grangé
Université de La Rochelle, France
pgrange@univ-lr.fr

Abstract—This paper aims at comparing and discussing recent findings from human genetics (genomics) and linguistics, regarding the long-lasting question of the Sama-Bajau / Bajo diaspora in Eastern Indonesia, Sulu archipelago (South Philippines) and Sabah (Malaysia). The Bajo are a maritime-oriented people, and some of them were sea nomads until the 1970s. They scattered over this wide zone centuries ago, they forgot their territory of origin, and the original Sama-Bajau language locally diversified in a dozen of languages or dialects. If we consider the common patterns of their origin myths, it seems that they were forced to flee their homeland by a foreign power. Genomics shows early admixtures with the Bugis (South Sulawesi) and the dating of their diaspora broadly matches with the linguistic data. The unidentified political event that drove them out their homeland probably happened at the end of the 11th century. If genetics and linguistics data correspond, these data are strongly backed. However, we came upon a serious discrepancy about the location of the Sama-Bajau homeland: geneticists assert it was South Sulawesi, while linguists believe it was South Kalimantan, because SB languages are related to South Barito cluster more than to any other language in Southeast Asia.

Keywords—Sama-Bajau; Bajo; Sama-Bajau language; sea nomads; maritime diaspora; Bugis; Sulu Archipelago
Revitalizing Balinese Woodcraft Industry Through Applying Nanocomposite Reinforced Synthetic Wood Technology

I Wayan Karyasa\textsuperscript{1}, I Wayan Muderawan\textsuperscript{2}, I Made Gunamantha\textsuperscript{3}
\textsuperscript{123}\textsuperscript{Chemistry Department, Faculty of Math and Natural Sciences Universitas Pendidikan Ganesha}
Singaraja, Bali, Indonesia
\textsuperscript{1}karyasa@undiksha.ac.id, \textsuperscript{2}wayan.muderawan@undiksha.ac.id, \textsuperscript{3}made.gunamantha@undiksha.ac.id

Abstract—Our finding on a technology for producing woodcrafts using nanocomposite reinforced synthetic wood becomes an alternative solution for solving the current problems of Balinese woodcraft industries. The study on applying the current developed synthetic wood technology was conducted in order to analyze the production cost comparing toward the cost using natural wood, to gain the market responses for analyzing the consumer satisfaction and the market competitive prices and to gain the stakeholders for initiating a cluster industry. The customer satisfaction as well as stakeholder acceptability on the synthetic wood technology could revitalize the Balinese woodcraft industries.

Keywords—nanocomposite; synthetic wood; woodcraft
Application of Climate-Driven Model on the Risk of *Opisthorchis viverrini* Infection in Thailand

Pariwate Varnakovida\(^1\), Laddawan Jensarikit\(^2\), Apiporn Suwannatrai\(^3\), Sanwit Iabchoon\(^4\)

\(^1\)1,2,4King Mongkut’s University of Technology Thonburi, Bangkok, Thailand
\(^3\)Khon Kaen University, Khon Kaen Province 40002, Thailand
\(^1\)pariwate@gmail.com

**Abstract**— *Opisthorchis viverrini* (*O. viverrini*), known as a small liver fluke, is a parasite that lives in the bile duct of the mammals including humans. Opisthorchiasis caused by *O. viverrini* infection is a major public health in many countries in Southeast Asia including Thailand and significantly associated with the development of cholangiocarcinoma (bile duct cancer). Environmental factors, particularly climate, significantly influence the life-cycle of *O. viverrini* as well as its intermediate host snails. The climatic parameters such as soil moisture, temperature, and precipitation may alter the geographical distribution of *O. viverrini* by affecting the suitability of freshwater bodies for hosting both parasite and snail populations. Thus, opisthorchiasis is expected to respond to the climate change. However, the influences of climate on the incidence and distribution of opisthorchiasis in Thailand has not yet been addressed. This study aimed to investigate the interaction between climate and opisthorchiasis levels in Thailand using the climate-driven disease model. The climate data and the prevalence of *O. viverrini* infection in 2009 were obtained from the Thai Meteorological Department and Department of Disease Control, Ministry of Public Health, respectively. The risk maps illustrated that the risks of opisthorchiasis in the North and Northeastern regions were found in May, June, July, and September with the highest overall predicted risk being in July. The climate-driven risks of opisthorchiasis in July are consistent with the risks determined from the observed prevalence of *O. viverrini* infection using hot spot analysis. With that, this model can be used to forecast both area and timeframe of opisthorchiasis at the local scale, which can be used to support health planning for implementation of disease prevention and control strategies.

**Keywords**— *Opisthorchis viverrini*, Climate change, Climate-driven disease model
Parenting Experience in the Indigenous Balinese Village, Indonesia

Nice Maylani Asril¹, Luh Ayu Tirtayani²
¹Department of Health Development, Graduate School of Biomedical and Health Science Hiroshima University, Japan
²Department of Early Childhood Education, Universitas Pendidikan Ganesha, vSingaraja, Bali, Indonesia
¹d1655177@hiroshima-u.ac.jp, ²ayutirtayani@gmail.com

Abstract— The customary village of Tenganan Pegringsingan is one of the oldest villages in Bali that still practices the ancient tradition in everyday life. The familial system that adopts the bilateral system and the peculiarities of the village of Tenganan Pegringsingan bring about a unique parenting experience for the parents and the child. This study was aimed at exploring parenting experience in the bilateral system viewed from the social-emotional aspect in children of the customary village of Tenganan Pegringsingan. The study employed indigenous psychology with indigenization from within. It used in-depth interview and observation as the methods of data collection. The results showed that children in Tenganan Pegringsingan culture consist of two stages of development called cerik and rare. Each has a unique developmental phase and influences the parenting practice experience. The value to maintain the purity of lineage kindles the spirit of everyday parenting experience. These nurture values are the basis of the community’s success in maintaining its existence as an old village (Bali Aga) in the midst of today’s modern society.

Keywords: indigenization, child’s socio-emotional development, parenting experience, Bali Aga
Medical Plants in *Usadha*: *Loloh* as Balinese Medicine and Traditional Herbal Product in Educational Perspective

I.W. Rasna¹, D.K. Tantra²
¹,²Faculty of Language and Arts
¹,²Universitas Pendidikan Ganesha
Singaraja, Bali
wayanrasna@ymail.com¹, dewatantra@yahoo.com²

Abstract— This research aims at conducting an investigation about medical plants written in *Usadha* manuscript (Balinese traditional healing text). The medical plants are ingredients for making herbal namely *loloh*. The sample was selected purposively from several sources. *Usadha* text about medical plants were analyzed by content analysis. The text data about Usadha was recorded from the traditional healers (*balian*) by using in-depth interviews. Data about potential consumers of the herbal medicine, *loloh*, were obtained from vocational school teachers and lecturers through questionnaire technique. Finding in this research is the enhancement of herbal *loloh* research not merely about the ingredients but also about the educational sight and the value of caring of the health of reproductive organs.

Keywords— *loloh, medicine, herbal, education*
Online Information Media Villages Pegayaman to Inculcate Ideology and Religious Tolerance In Young Generation in North Bali

Jefri¹, Agus Aan Jiwa Permana², Gede Rasben Dantes³
¹, ², ³Management Informatics, Faculty of technology and Vocational Ganesha University Of Education
Singaraja, Indonesia
¹Jri264@yahoo.com, ²agus.aan@undiksha.ac.id

Abstract— Media Information Pegayaman Village Sukasada District, Buleleng District Web-based, implemented using PHP Script programming with CodeIgniter, assisted by Adobe Dreamweaver Cs6 as an editor, MySQL as a database manager, Adobe Photoshop Cs6 as a design manager. This information media which will later be used as a media campaign to introduce Desa Pegayaman to the wider community. This system has two actors namely administrator and visitor. Administrators in this system can log in administrators, manipulate village profile data, agenda manipulation, news manipulation, custom manipulation, video manipulation, and gallery manipulation. While visitors in this system can only see the information available in the Village Pegayaman without being able to manipulate data.

Keywords— Information Media, Pegayaman Village, Cultural Preservation, Muslim Village
Evaluation and Redesign of Augmented Reality Application based on Usability Testing (Case Study: Underwater Tourism Information Media)

Gede Rasben Dantes¹, Hendra Suputra², Komang Sudarma³, Ni Nengah Widya Utami⁴

¹,²Information Management Department, Universitas Pendidikan Ganesha
³Education Technology Department, Universitas Pendidikan Ganesha
⁴Computer Science Department, Universitas Pendidikan Ganesha
Bali, Indonesia
¹rasben.dantes@undiksha.ac.id, ²hendra.suputra@undiksha.ac.id,
³komang.sudarma@undiksha.ac.id, ⁴widya.utami@pasca.undiksha.ac.id

Abstract—Any application designed for promotional purposes should be evaluated in terms of its usability for its users. Thus, the present study was focused at evaluating the usability of e-Bahari Augmented Reality (AR) Application that was developed to promote underwater tourism objects in Bali in the form of 3D augmented reality. Heuristic Evaluation (HE) was applied to evaluate the application by involving three users as evaluators to comment and give suggestions on the usability of the application in three respective levels of specifications and how to improve it. These comments and suggestions were then categorized using heuristic principles based on ISO 9241-11 and adjusted Nielsen Heuristics criteria. The evaluation revealed that the e-Bahari AR had successfully represented underwater tourism objects in 3D, such as underwater lighting effects, anemones, fish, and turtles. However, the 3D augmented reality for virtual objects of real life still needed improvement as it had not reached naturality and lacked interaction between users and applications. Moreover, the evaluation also revealed that the lower the specifications of the application, the lower the quality if the augmented reality resulted. Thus, the application with the highest specification worked without apparent problems.

Keywords—evaluation, usability, heuristic, augmented reality, e-Bahari
Evaluation of e-Learning as a Learning Agent

Ni Ketut Suarni¹, I Nyoman Laba Jayantha², I Ketut Dharsana³, Gede Rasben Dantes⁴

¹,³Guidance and Conseling Department, Universitas Pendidikan Ganesha
²Elementary Education Department, Universitas Pendidikan Ganesha
⁴Information Management Department, Universitas Pendidikan Ganesha
Bali, Indonesia

¹ketut.suarni@undiksha.ac.id, ²laba.jayanta@undiksha.ac.id, ³ketut.dharsana@undiksha.ac.id, ⁴rasben.dantes@undiksha.ac.id

Abstract—The aim of this study was to evaluate the e-learning as a learning agent. The main feature of this system is to identify a learning style of the student. It identify through a log system that related with student’s academic achievement who was obtained through accessible of learning content. On this study, learning style was classified into three, namely: textual, audio, and visual. Learning style was determined by Bayesian Network Algorithm. When the system identified a learning style of the student, thus it will recommend the student with suitable learning content. On the other hand, the system can identify the student’s motivation as well through number of access into the learning content and involvement of the student in a discussion forum. The evaluation of the system used an experiment method. The academic achievement was used as an indicator to evaluate the success of model “e-learning as a learning agent”. This study was conducted in SMAN 1 Kuta on the subjects of Information and Communication Technology. The research revealed that the used of e-learning as a learning agent helped students to increase their academic achievement. It was compared to e-learning which is used as content management system only.

Keywords: e-Learning as a learning agent, e-Learning, Learning style, Bayesian Network
DESIGNING AND DEVELOPING STRATEGIC & SUPPORTING DOMAINS OF INFORMATION SYSTEM FOR IMPROVING A SERVICE QUALITY AND COMPETITIVENESS OF HIGHER EDUCATION

Luh Joni Erawati Dewi¹, Gede Rasben Dantes²
¹,²Information Management Department, Faculty of Engineering and Vocational,
¹,²Universitas Pendidikan Ganesha, Bali, Indonesia
¹joni.erawati@undiksha.ac.id, ²rasben.dantes@undiksha.ac.id

Abstract—Aim of this study is to implement a master plan of Information System (IS)/Information Technology (IT) in Strategic Domain for improving a service quality and competitiveness of higher education, especially Ganesha University of Education (GUE). The development of IS/IT in strategic domain referred to GUE’s IS/IT master plan. Based on it, IS/IT was mapped into four domains, namely: support, key operational, strategic, and high potential. On this study, we developed several applications which are part of strategic domain, among others: (1) information system for alumni, (2) information system for industrial attachment. On this study, we also revise some of information system which was developed on previous research, namely: (1) e-library, (2) information system for inventory. Stage of researches which were used on this study, namely: (1) literature review and need analysis, (2) system design, (3) implementation/coding, (4) testing, (5) dissemination and product socialization.

Keywords: Master plan, Information System, Information Technology, Strategic Plan, Strategic Domain
Abstract—The use of game as teaching strategy definitely also can be inserted with character education since game is believed as an integral part of a balanced curriculum which contributes to students’ cognitive, psychomotor, and affective development. Thus, this study aimed at developing Character-Based Language Learning Games in teaching English for second grade junior high school students and analyzing the quality of it. Sugiyono model of development was used as the present research procedures. As the results, the product of this research was four games which were presented into a games book for teacher. Those games are “Describe and Match”, “Describe, Draw, and Match”, “Spin Your Experience”, and “Trust and Stick” game. The result of experts’ validation showed that the four games developed were rated as excellent games and the games book designed were categorized as excellent book.

Keywords: games book, characters, language learning games
FILMS ADAPTATIONS FOR INTRODUCING LITERATURE IN BALINESE CLASSROOMS

Ni Komang Arie Suwastini
Department of English Education, Faculty of Language and Art
Universitas Pendidikan Ganesha
Singaraja, Bali
arie.suwastini@undiksha.ac.id

Abstract—The lack of interest in reading among students has been recognized as one of the main problems in the teaching of Literature, especially for EFL students in Bali, where reading has never been a part of the culture. The present article proposes the embracing of the audiovisual trends to facilitate the teaching of Literature for EFL students in Bali by employing films adapted from literary canon. This article argues that films adapted from canons in English literature can provide prior knowledge for the students about the characters, the theme, and major incidents in the plot, while providing summary for the text. Further, films adapted from canons can also provide cultural and historical context about the canon and about the English people as the target culture of EFL classes while providing examples of how a text can be interpreted as affected by social, ideological, political, and cultural contexts of the production.

Key words: Literature, EFL, film adaptation, canon.
Castrating Pedophiles as Phallogocentric Punishment for Child Molesters: A Response Toward Enactment of Government Regulation in Lieu (PERPPU) NO. 1, 2016

Ni Komang Arie Suwastini¹, Nyoman Karina Wedhanti², Gede Rasben Dantes³

¹, ²Department of English Education, Faculty of Language and Arts, ³Department of Informatics, Faculty of Technology and Vocational, Universitas Pendidikan Ganesha, Singaraja, Bali, Indonesia

¹arie.suwastini@undiksha.ac.id, ²karina.wedhanti@undiksha.ac.id, ³rasben.dantes@undiksha.ac.id

Abstract— The present study highlights the diction of “Kebiri” or male castration as the punishment for child molesters assigned by Enactment of Government Regulation in Lieu of Law No. 1, 2016. Amidst the debate about the propriety of the punishment concerning its costly and repetitive procedure and based on the physical and psychological impact on the convicted and its effectiveness to create deterrent effects on convicts and prospective perpetrators, some important aspects of the punishment has escaped the attention of the government, including how the diction does not only systematically overlook the possibility of female molesters but also phallogocentrically places male’s genitalia as the ultimate punishment for male’s sexuality, while at the same time ignores the facts that sexual abuse can be done with other body parts including verbal acts. Thus, this study strongly recommends a revision toward the formation of the punishment with more politically correct dictions.

Keywords— castration, child molesters, Enactment of Government in Lieu Law No 1 per 2016, phallogocentrism.
ENCOURAGING STUDENTS IN READING CLASS BY IMPLEMENTING CIRCLE THE SAGE TECHNIQUE

G. A. P. Suprianti
English Education Department
Universitas Pendidikan Ganesha (Undiksha)
Bali, Indonesia
gap.suprianti@undiksha.ac.id

Abstract—Students need to be encouraged in reading especially when they read passage not in their native language. To cope with this problem, teachers can implement appropriate technique in teaching reading. This present study aimed at implementing Circle the Sage technique on a reading class at English Education Department, Universitas Pendidikan Ganesha academic year 2016/2017. The students in the second semester were the population of this study and two classes were chosen as the sample. To obtain the data, the two classes were treated differently. One class was taught by using Circle the Sage technique; meanwhile the other one was taught by Three-phase technique. Teaching scenario and post-test were the instruments used. After conducting statistical analysis, it was found that t-observed exceeded the t-critical value which means there was significant effect on students’ reading competency who were taught by Circle the Sage.

Keywords- reading class, Circle the Sage
The Silence of a Narrator: The Ambivalence of Female Voice in Cok Sawitri’s Tantri, Perempuan yang Bercerita (2011)

Ni Komang Arie Suwastini¹, Nyoman Karina Wedhanti²
¹,²Department of English Education,
Faculty of Language and Arts, Universitas Pendidikan Ganesha,
Singaraja, Bali, Indonesia
¹arie.suwastini@undiksha.ac.id, ²karina.wedhanti@undiksha.ac.id

Abstract— The present study aimed at observing Tantri’s subjectivity as the narrator of the tales that enlightened the Blinded King. By applying postfeminism in textual analysis, the study revealed that a disparity between the ways Tantri voiced herself when she spoke as a daughter and as a woman. As a daughter, Tantri was very assertive and persuasive about state affairs. However, Tantri never spoke of her feelings as a woman, nor the book states whether she was abstain from affection for the King while she was repeatedly stated to notice the good qualities of the King and thus, every woman was entitled to fall in love with him. This indicates that while the novel intensively articulates Tantri’s subjectivity through her voice as an assertive narrator, Tantri was denied individual choices and desires that undermine the novel’s effort to highlight Tantri as a voice of feminism.

Keywords— Tantri, postfeminism, female voice, narrator, ambivalence.
The Historical Sites as a Potential Touristic Destination: A Case Study in North Bali

Made Handijaya Dewantara¹, Putu Devi Rosalina²
¹Politeknik Internasional Bali, Denpasar, Indonesia
²Sekolah Tinggi Pariwisata Bali Internasional, Denpasar, Indonesia
¹handi.dewantara@pib.ac.id, ²putudevi@stpbi.ac.id

Abstract—the development of tourism in Bali seems to be not balance contributing to each part. The tourists are merely flocked in certain popular touristic destinations, whereas Bali has many potential tourist attractions to improve. North Bali is not an exception, with its enchanting pristine beauty, the northern seems to offer more cultural and natural attractions, away from the crowded touristic atmosphere. This study, thus, analyzes how North Bali actually owns a potential touristic destination, more precisely on its cultural historical sites. North Bali tourism stakeholders need to find a strategy to maximize this opportunity. Funds that rose from that will be used for further preservation. Other alternative strategies and differentiation may be added in order to create a new position for the museum and historical sites that is located in Northern Bali. It is also suggested that the LEAD formula must be implemented.

Keywords—historical sites; north bali; cultural tourism
ACCOUNTING MULTIMEDIA LEARNING FOR IMPROVING SOFT SKILLS OF STUDENTS

Ni Kadek Sinarwati
S1 Accounting, Ganesha of Education University

Abstract—The facts show that soft skills contribute more in achieving success than hard skills. Ironically soft skills of accounting students are still low. One effort that can be done to improve students’ soft skills is by applying multimedia in accounting learning. Until now there has been no multimedia applied in accounting learning. Multimedia is a combination of more than one medium in a form of communication. Multimedia today refers to the incorporation and integration of media, such as text, animation, graphics, sound, video into computer systems. Multimedia is as a computer system consisting of tools and software that make it easy to allow images, video, photography, graphics and animation, combined with voice, text data controlled by computer programs. Soft skills are a person's skills in dealing with others (including with himself). Thus, the attributes of soft skills include the value held, motivation, behavior, habits, character, and attitude.

Key words: Accounting, multimedia, soft skills
Portfolio Optimization In State-Owned Commercial Banks Using Markowitz Model

Fridayana Yudiaatmaja\textsuperscript{1}, Trianasari\textsuperscript{2}
\textsuperscript{1}Management Department, Universitas Pendidikan Ganesha
\textsuperscript{2}Hotel Department, Universitas Pendidikan Ganesha
Singaraja, Indonesia

Abstract— This study aimed to determine the proportion of asset allocation in stock investment to state-owned commercial banks in Indonesia. The method employed was Markowitz’s model. This research used secondary data which was taken from Yahoo!Finance in the period of 2013 to 2015. The result of this research suggested that state-owned commercial banks BMRI, BBRI, BBNI, and BBTN have average annual return of 17.969 \%, 25.786 \%, 24.219 \%, and 13.146 \% respectively. The weight results using Markowitz portfolio optimization model in state-owned commercial banks BMRI, BBRI, BBNI and BBTN were 0.000 \%, 0.657 \%, 0.343 \%, and 0.000 \% respectively. In other words, an optimal portfolio is formed by allocating funds 65.7 \% to BBRI and 34.3 \% to BBNI. The expected annual rate of return portfolio was 25.249\%, with the risk value of 8.366\%.

Keywords— Investment strategy; Markowitz Model; Portfolio Optimization; State-owned Banks;
Needs Analysis of Sports Tourism Industry Development Based on Local Wisdom

Syarif Hidayat¹, Toho Choli Mutohir², Made Pramono³
¹ Fakultas Olahraga dan Kesehatan Universitas Pendidikan Ganesha, Singaraja Bali Indonesia
²,³ Program Pascasarjana Ilmu keolahragaan, Universitas Negeri Surabaya, Surabaya Jawa Timur Indonesia
¹ syarifkor2014@gmail.com, ² toho.ditjora@gmail.com, ³ made.pramono@gmail.com

Abstract— This study aims to obtain data on the potential of Buleleng Regency in developing a model of sports industry based tourism local wisdom. This research uses qualitative method. The subjects involved in this study were government representatives, community leaders, academics, and managers of trekking activities. Research location in Buleleng Regency Bali. Data collected through observation and interviews were analyzed according to the research focus. The results showed that Buleleng district has potential to develop sports tourism industry with nature-based trekking especially based on local wisdom. Very good community support is evidenced by the formation of a conscious group of tours, especially serving trekking activities in the open. Community leaders strongly agree that the development of tourism in Buleleng Regency must still pay attention to nature and culture.

Keywords: sports tourism, sports tourism industry, local wisdom
FOR LOCAL ECONOMIC EMPOWERMENT MODEL (KLUNGKUNG MSMEs GEOGRAPHICAL INDICATION PRODUCT)

I Gusti Ayu Purnamawati¹, I Wayan Landrawan²
¹Fakultas Ekonomi
²Fakultas Hukum dan Ilmu Sosial
Universitas Pendidikan Ganesha
Bali, Indonesia
ayupurnama07@yahoo.com, ayupurnama@yahoo.com

Abstract—The aims of this study were to determine: (1) The efficiency of Endek craft on Balinese woman for local economic empowerment model as Klungkung MSMEs geographical indication product; (2) The strategy to enhance women’s support in supporting qualified human resource of MSMEs; (3) The synergistic model between Klungkung MSMEs with regional stakeholders in the development of geographical indication product. The qualitative data obtained by observations and depth interviews of MSMEs and the community who participate in every institutional design of MSMEs. The results of this research were: (1) the art of tenun ikat product is developed to have economic value based on market needs; (2) Dinas Perindustrian dan Perdagangan in Klungkung regency held training for craftsman to create skilled craftsman; (3) stakeholders’ involvement in the handicraft products legalization related to the Copyright.

Keywords: geographical indication, craft, women, MSMEs.
Abstract—The aims of this community devotion were to find out (1) the difficulties of Klungkung’s songket and tenun endek craftsmen in obtaining copyright of their works or products; (2) How to determine that banjar Jero Kapal, Gelgel Village, and Banjar Dinas Ulunsui Klod, Sampalan Village is categorized as a geographical protection area of traditional tenun endek and Klungkung’s songket. This study used descriptive qualitative with normative juridical approach. The location of this study was in Gelgel and Sampalan Village tenun endek and Klungkung’s songket are developed. While the subjects of this study were (1) The head of Dinas Perindustrian dan Perdagangan in Klungkung regency; (2) the head of Gelgel and Sampalan Village; (3) Kelian Desa Adat Banjar Jero Kapal and Banjar Ulunsui Klod, and (4) tenun Endek and Klungkung’s songket craftsmen who purposively determined. The data was collected by observation, interview and document recording. The result of this study were (1) The difficulties of the craftsmen in obtaining the due to the lack of legal awareness of the the craftsmen community in Gelgel and Sampalan village; (2) Gelgel and Sampalan villages are categorized to have copyrights of tenun ikat, tenun endek and Klungkung’s songket because the existence of both villages are showing the sign of the origin of the goods, due to geographical environmental factors including natural factors, human factors, or a combination of these two
factors. To obtain legal protection of geographical indication, craftsman in Tenganan must apply copyright registration.

Keywords: Copyright, Geographical Indication, Law Protection, Tenganan, tenun Endek and Klungkung’ songket.

CROSS-CULTURAL ADJUSTMENTS OF EXPATRIATE TEACHERS IN UBUD VILLAGE

Nyoman Karina Wedhanti¹, Dewa Made Mahendra Putra²
¹,²Universitas Pendidikan Ganesha
Singaraja, Bali

Abstract—The study aimed at investigating the experiences and the perceptions of expatriate teachers toward culture shock and how they cope the culture shock problems. Case study was applied because this study investigated the phenomenon in depth which was culture shock phenomenon. The data were taken from three expatriate teachers in Ubud through interview and questionnaire. The analysis reveals that there are fifteen experiences and perceptions of expatriate teachers toward culture shock in Ubud which are classified into seven experiences and eight perceptions. These seven experiences are experiences of confusion, stress, loneliness, uncomfortable, homesickness, depression, and frustration. Meanwhile, these eight perceptions are perceptions about social dominance, enclosure within acculturation, cohesiveness, language shock, unfamiliar things, cultural differences, the difference language, and different system in handling garbage. It identifies four strategies to cope with culture shock problems namely communication, finding familiar things, keeping the routine, and making friends.

Keywords: culture shock, cross-cultural adjustment, expatriate teachers
Learning experiences and academic adjustment of Dutch students in the BIPA program at Ganesha University of Education

Dewa Ayu Eka Agustini¹, Made Wahyu Sudewa²
¹²Universitas Pendidikan Ganesha
Singaraja, Bali

Abstract—This study aimed at elaborating the learning experiences and academic adjustment of Dutch students in the BIPA program at Ganesha University of Education. This study was conducted qualitatively as a case study, in order to investigate in depth phenomenon of a single case. The subject of this study were three Dutch students in the BIPA program at Ganesha University of Education. The methods of data collected through observation, interview, and questionnaire. The result of this study revealed that the three subjects gained 34 learning experiences in all courses in which they enrolled, namely culture and Indonesian language courses. There were five factors that influenced the academic life of Dutch students such as perception, attitudes, motivation, self-regulation, and goal valuation. In conclusion, with those five factors, the Dutch students were able to adjust the academic life and gained 34 learning experiences.

Key words: academic adjustment, international students, learning experiences
EVALUATION OF FOOTBALL COACH
COMPETENCE OF EARLY AGE AT
FOOTBALL SCHOOL

Ujang Rohman¹, Hari Setijono²
¹,²Department of Sport Science, Postgraduate Program
State University of Surabaya
Surabaya, Indonesia
¹jankroh64@gmail.com, ²harisetiono@yahoo.co.id

Abstract— Studies in this study further highlights the competency of football coach of early age. The method used in this research is mixed methods. Based on the analysis of quantitative and qualitative, then it is the results: 1. Context Evaluation. Analysis reveals that a variable scores of coach presence in the count of 61.66% 2. Input Evaluation. Analysis shows score of 53.03% variable of human resource of the academic coaches. 3. Process Evaluation. analysis a description of the evaluation process, it includes: competence of development character 59.69%, motivation competence 55.00%, technical competence 53.51% and competence of games strategy 50.00% . The analysis of SEM through approach Partial Least Square (PLS) is known from the value of R-square (R²), for character development competence (X₁) 0.7549, competence of motivation (X₂) 0.6844, technical competence (X₃) 0.7805 and competency games strategy (X₄) 0.7572. Shows that all indicators represent variables of coach competencies which describe the significant influence, that the competence of football coach of early age has relevance. 4. Product Evaluation. The coach competency formula is conceptually divided into three main parts, can be said that the standard of football coach competence of early age the capacity of attitude (affective), knowledge (cognitive), and skills (psychomotor).

Keywords: competence, football coach an early age
DEVELOPING CASE BASED LEARNING ORIENTED BIOLOGY MODULE TO IMPROVE SENIOR HIGH SCHOOL STUDENTS’ CRITICAL THINKING SKILL

Arnyana, I. B. P\textsuperscript{1}, Upadianti, L.P.E\textsuperscript{2}, Suma, K\textsuperscript{3}. 
\textsuperscript{1,2,3}Program Studi Pendidikan IPA, Program Pascasarjana Universitas Pendidikan Ganesha Singaraja, Indonesia  
\textsuperscript{1}gusarnyana@yahoo.co.id, \textsuperscript{2}upadiantiemitha@yahoo.co.id, \textsuperscript{3}sumaketut@ymail.com

Abstract— This study aims to develop and validate the Case Based Learning module to improve the critical thinking skills of high school students. The development model used 4-D model that includes, define, design, develop, and disseminate. Module validation is done by validity test, practicability test, and effectiveness test. Validity test is done through expert validation and empirical validation, practical test is done by giving teacher and student response questionnaire to the learning module implementation, and effectiveness test is done by giving pretest and posttest to students. The results showed that the module developed has a very high validity with an average score of 4.25. The modules developed have a very high practicality with an average score of 4.21 in terms of the implementation of the module. The developed module qualifies the effectiveness to improve critical thinking skills with an average value of the critical thinking skill test of 85.92. Result of t test get t value 22.567 > t table (1,868) which states there is improvement of critical thinking skill of students which is significant between before application of module and after application of module. The conclusion, learning module that is oriented Case Based Learning is valid, practical, and effective to improve critical thinking skill of high school student.

Keywords— learning module, case based learning, critical thinking skil
RFID Technology for Integrated Laboratory Information System

I Nyoman Laba Jayanta¹, Dewa Nyoman Sudana², I Gede Nurhayata³
¹,²Elementary Teacher Education Department
³Electrical Engineering Department
¹,²,³Universitas Pendidikan Ganesha
Bali, Indonesia
¹laba.jayanta@undiksha.ac.id, ²dewanyoman.sudana@undiksha.ac.id, ³gede.nurhayata@undiksha.ac.id

Abstract— This present study aimed at introducing Information and Communication Technologies to elementary and high schools by implementing Radio Frequency Identification (RFID) - Based Integrated Laboratory Information System. This product is hoped to be able to help the schools in administering education and learning service in laboratory optimally. Besides, it was aimed at giving standardized guidance orally about information, function and performance of material and equipments. Therefore, the teacher, the students and the laboran could get the same information. This study was Research and Development in designing hardware and software. Questioner and interview were used to measure the effectiveness and relevance of the product developed. It was found that RFID reader could read card number shown by ID tag card, then RFID reader would process the data and send them to microcontroller. The data were processed to identify object identification number of the equipment. When an object could be identified, microcontroller would show information about the function and how any equipments work. The result of this study was a prototype of integrated laboratory information system about the function and how any equipments in laboratory works.

Keywords: Elementary & High Education; Integrated Laboratory; Radio Frequency Identification (RFID)
Folklore Digitalization for Cultural Preservation Based on Mobile Application

G.R. Dantes¹, I.K. Dharsana², N.K.A. Suwastini³, P.H. Suputra⁴, G.M. Wardana⁵
¹,²Information Management Department, Vocational & Engineering Faculty, Universitas Pendidikan Ganesha
²Guidance and Counseling Department, Science Education Department, Universitas Pendidikan Ganesha
³English Education Department, Language and Art Department, Universitas Pendidikan Ganesha
⁴Computer Science Department, Postgraduate Program, Universitas Pendidikan Ganesha
Corresponding email: rasben.dantes@undiksha.ac.id

Abstract—This study was aimed at: (1) exploring folktales shared among the members of the communities across Bali, (2) preserving Balinese folklore through the digitization of folktales, (3) providing educational value for Indonesian children through folktales that are heavily loaded with moral value, (4) preventing Balinese folktales from extinction, as a part of the conservation of Balinese folklore and Balinese Culture in general, and (5) introducing Balinese folktales as part of Balinese culture and Indonesian Culture to a wider society beyond the respective communities where the folktales are originated: for Balinese society, Indonesian society, and the global society. This study was designed in three stages. The first stage was designed for producing a prototype system which can be applied for containing the data about the Balinese folktales. The second stage was designed for developing the contents of Balinese folktales on web-based and mobile applications. The third stage was designed as the evaluations stage reviewing the application of the system and its impact on the preservation of Balinese folktale and Balinese culture in general. The present paper is aimed at reporting the first stage of the research, in which a prototype system was developed in the form of a web that would contain the information about Balinese folktales among Balinese communities, in the form of multimedia application which consists of text, illustrations, audio and video. Focusing on the folktales in the form of prose, the application was designed to provide the
data in accordance with the classification of folktales, namely myth, legend, and fairytales along with their sub classifications.

Keywords: folklore, web application, mobile application, culture heritage

VIRTUAL REALITY AND AUGMENTED REALITY: EMPOWERMENT OF UNDERWATER TOURISM TO INCREASE CARRYING CAPACITY IN TOURISM SECTOR (CASE STUDY: BALI AS A MAIN GATE FOR INDONESIA’S TOURISM)

G.R. Dantes¹, K. Sudarma², P.H. Suputra³, N. Jampel⁴, N.N.W. Utami⁵
¹,³Information Management Department, Faculty of Engineering and Vocational, Universitas Pendidikan Ganesha
²,⁵Education Technology Department, Faculty of Education Science, Universitas Pendidikan Ganesha
⁵Computer Science Department, Postgraduate Program, Universitas Pendidikan Ganesha
Corresponding email: rasben.dantes@undiksha.ac.id

Abstract—The long term goal of this study is to increase tourism’s supporting capacity through the empowerment of underwater tourism in North Bali, related to the establishment of Bali as a gateway of Indonesian national’s tourism. North Bali was used as a pilot project on this study, which consisted of Buleleng, Jembrana, and Karangasem districts. The short-term goal of this study can be described as follows: (1) implementation of e-Bahari for empowering tourism’s underwater; (2) construction of the content of underwater’ natural resources in the area of North Bali, and (3) system and content dissemination. A design of e-bahari model and prototype development have been administered. The prototyping methodology was used in product developing. While the needs analysis and data collection
were conducted through interviews, document observation, field data, as well as a literature review. The prototype of e-Bahari contains information on objects of underwater tourism in North Bali, including profiles and maps of each site along with points of interests and activities offered by underwater tourism in North Bali. It is expected that the prototype of the e-Bahari will help advertising the underwater tourism in North Bali and tourism in Bali in general.

*Keywords*: e-bahari, tourism’s supporting capacity, North Bali.
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