





The 21<sup>st</sup> International Conference on Computers in Education 18-22 November 2013 Bali, Indonesia

## Proceedings of the 21<sup>st</sup> International Conference on Computers in Education 2013

#### **Editors:**

Lung Hsiang WONG Chen-Chung LIU Tsukasa HIRASHIMA Pudjo SUMEDI Muhammad LUKMAN



Supported by:











# Proceedings of the 21st International Conference on Computers in Education ICCE 2013

## November 18 2013 - November 22 2013 Indonesia



Copyright 2013 Asia-Pacific Society for Computers in Education

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, transmitted, in any forms or any means, without the prior permission of the Asia-Pacific Society for Computers in Education.

ISBN 978-602-8040-72-3 Publisher: UHAMKA Press, Jl Gandaria IV, Kramat Pela, Kebayoran Baru, Jakarta Selatan, Indonesia.

#### Publisher



Jl. Gandaria IV, Kramat Pela, Kebayoran Baru, Jakarta Selatan Telp. (021) 7398898/ext: 112 Website: www.uhamkapress.com, E-mail: uhamkapress@yahoo.co.id

## C7: ICCE Conference on Practice-driven Research, Teacher Professional Development and Policy of ICT in Education (PTP)

## **Full Paper**

| 142  | Skilling Students in ICT using Long-Distance Controlled Robots over the Internet in a Blended Learning Setting  Megan HASTIE, Akiyuki MINAMIDE, Kazuya TAKEMATA, Nian-Shing CHEN, Richard SMITH             | 838 |
|------|---|-----|
| 143  | Digital Representation of Visual Artworks for High-Stakes Assessment<br>C. Paul NEWHOUSE  | 846 |
| 144  | The Relationships among College Students' Use of and Attitudes toward CMS's Interactive Functions and Their Online Learning Performance <i>Huei-Chuan WEI, Chien CHOU</i>                                   | 854 |
| 145  | Complex Interaction Between Technology, Pedagogy and Content Knowledge: A Case Study in Chinese Language Classroom  Yancy TOH, Lung-Hsiang, WONG & Ching-Sing CHAI, Jenny Yen Lin LEE & Jessy Pui Shiong NG | 865 |
| 154  | The Comparison of Paper Textbook Class and Electronic Textbook Class in Technology Rich Classroom  Guang CHEN, ChaoHua GONG, JunFeng YANG, YanYan LI, RongHuai HUANG  | 876 |
| 155  | Bring Your Own Device (BYOD) for Seamless Science Inquiry: A Case Study in a Primary School  Yanjie SONG, & Cheuk Lun Alvin MA  | 886 |
| 156  | Online Learning Community for Teacher Professional Development in Indonesia  Eunice SARI and Adi TEDJASAPUTRA   | 896 |
| 157  | Practical Use of Kit-Build Concept Map System for Formative Assessment of Learners' Comprehension in a Lecture  Kan YOSHIDA, Kouta SUGIHARA, Yoshiaki NINO, Masakuni SHIDA, and Tsukasa HIRASHIMA           | 906 |
| Shor | t Paper   |     |
| 158  | Territory-wide Readiness for IT Integration into Curriculum Delivery for Learner-<br>centered Learning: The Current State in Hong Kong<br>Siu Cheung KONG   | 916 |

| 159 | Views and experiences of Information and Communication Technology Coordinators towards the Implementation of a Virtual Learning Environment in Primary Education in England  *Richard WAGGOTT* | 922 |
|-----|--|-----|
| 160 | ICT in the Australian Curriculum C. Paul NEWHOUSE  | 928 |
| 161 | Teacher Enactment in Collaborative Inquiry with a Science Learning Environment Daner SUN, Chee-Kit LOOI  | 934 |
| 162 | Using ICT in the Teaching of Visual Arts. A Situational Analysis at Secondary Level in Mauritius  Mridula BEEHARRY-KONGLAR   | 941 |
| 163 | Inculcating Mathematical Thinking through Epistemic Agency Chien-Sing LEE, Ping-Chen CHEN, Tsung-Chun HO, Tak-Wai CHAN   | 947 |
| 164 | Factors influence the acceptance of m-Learning in Malaysia: Perceived Usefulness, Perceived Ease of Use and Attitude  Jazihan MAHAT, Ahmad Fauzi MOHD AYUB & Wong SU LUAN                      | 953 |
| 165 | Media Usage by Filipino Students – An Empirical Survey  Ma. Mercedes RODRIGO, Ph.D., Michael GROSCH, Ph.D. & Juan Miguel ANDRES  | 959 |
| 166 | Integrating ICT in Classrooms – Collaboration Between a Municipality and a University Built on an Open Learning Process  Niklas KARLSSON, Torbjörn OTT, Anna-Lena GODHE & Berner LINDSTRÖM     | 965 |
| 167 | Developing Digital Technologies for Undergraduate University Mathematics:<br>Challenges, Issues and Perspectives<br>Evangelia TRIANTAFYLLOU & Olga TIMCENKO                                    | 971 |
| 168 | A Pilot Study on the Technology Readiness for 1:1 Mathematics Intervention Andrew CC. LAO, Mark CL. HUANG, Hercy NH. CHENG, Tak-Wai CHAN   | 977 |
| 169 | A Method of Sharing the Intention of Reviewing in Writing-Training for Nurses Hideyuki KANOU, Noriyuki MATSUDA, Cui LIANG, Mitsuru IKEDA, Yuu OKAMURO, Kazuhisa SETA & Hirokazu TAKI           | 983 |
| 170 | A Model for Active Learning in Synchronous Remote Classrooms: Evidence from a Large-Scale Implementation  Jayakrishnan Madathil WARRIEM, Sahana MURTHY & Sridhar IYER                          | 990 |
|     |  |     |

## Poster

| 171 | Case Study of the Lesson Study Activity for Primary School Science Supported by Web-based Evaluation Assistance System in the Undergraduate Teacher Training | 997  |
|-----|--|------|
|     | Course (1)   |      |
|     | Hayashi NAKAYAMA & Tomokazu YAMAMOTO   |      |
| 172 | Pre-Service Teachers' Beliefs in Utilizing Film and Role-Play in EFL Classroom Practices   | 1000 |
|     | Suciana WIJIRAHAYU   |      |
| 173 | A Case Study of a Course Including Wikipedia Editing Activity for Undergraduate Students   | 1003 |
|     | Yuki MORI, Hironori EGI & Shigeto OZAWA  |      |
| 174 | The Effect of Internet "Blog" as a Learning Media towards the Learning Outcome of  | 1006 |
|     | Science on Elementary School Students  |      |
|     | Mimin NINAWATI, Maulana YUSUF  |      |

## The Effect of Internet "Blog" as a Learning Media towards the Learning Outcome of Science on Elementary School Students

Mimin NINAWATI<sup>a\*</sup>, Maulana YUSUF<sup>a\*\*</sup>

<sup>a</sup>Faculty of Education, University of Muhammadiyah Prof. DR. HAMKA (UHAMKA), Indonesia \*nina.adenasution@yahoo.com \*\*maulana.aries40@yahoo.co.id

Abstract: For some students, science is not an interesting subject, this thing impacts on students science comprehension and their studying result that less than the required standart. It is caused by teachers less precise of giving the learning, the teachers only use the lecture method without using the media as an instrument that can support the students science subject comprehension, and the teachers still use themselves as the information source center for their students, so that what happen in the class is Teacher Center. As therapidprogress of science and technologythe teachers requiredto constantly innovatein developingquality learningandmeaningful .Weblogas a mediathatcan beused by teachersin teachinghas greatly totheimprovementof student understandingin science teaching.The contributed resultsprovethatthere is an influenceof theinternetas a learning science media to the learning result of the students. This is evidenced by thet-test at significance level α=0.05 and degrees of freedom(df) =58obtainedvalue oft =8.933and thetable =2.002. t count> t table, thenHois rejected. Application of the Internetas a learning mediacan helpstudents in improving their learning result.

Keywords: internet, blog, learning media, science, elementary school

In teaching process there's an educative interaction, which is an active two-ways relation that have the quality of education. To guarantee the efectiveness of this educative interaction, a media variation as a communicator between the teacher and the students in delivery of teaching material is needed. Because studying is a process in human being, so teacher is not only the source of learning, but one of the components of the learning source that can be called as a person.

Mediais atoolintermsof communicationchannels. In this case, the role of communication channels will be very important, because of the channel the message is delivered. It is because a teaching media is greatly help the educator or the teacher in giving the learning effectively and efficiently. Teachers should use the best mediatofacilitate the learning, because, a good process of communication and a good learning facility can provide a better learning result to increase the student studying accomplishmet. The main goal of the learning media is to integrate the effective aspect, cognitive, and psychomotor, which are very important in student learning process.

At this developing science and technology era, the professionalism of teacher is not enough by teaching students ability only, but also with the ability to manage the information and surroundings to facilitate the students studying activity. The teacher has to be able to pack the concept of students studying, either environmentally, place of learning method, valuation media system, or facilities and infrastructure so that can simplify the students in learning. The technology of information can also solve the education problem that we face, if the technology of information can be developed or adopted and pack compatible with the learning technology principals. One of the most affected technology in learning technology is the technology of information, especially computer and the internet. Internet has enabled all the people to communicate and exchange the information anytime easily and quickly. One of the utilization of the internet technology in education is a learning program with the web basic namely learning portal.

In learning with the internet basic, teacher can use one of the internet application facility for the learning requirement. We can use World Wide Web (WWW). WWW is a large collection of any

kinds of documentation that saved in any server around the world, and that documentation were developed in *hypertext* and *hypermedia format*, using *Hypertext Markup Language* (HTML) all documents will be connected each other as a word, visual, etc. Nowdays, Internet has been an absolute necessity for education organization or personal who wish to publish themself in the internet media. With the easy access, bring through everyone to have personal website for free such as blog.

Internet also be used programmatically. Teacher can utilize internet as media of learning. For example, teacher provide an interactive or non interactive website which supply learning material then student allows to access. By opening teacher's blog, students can find all information and learning material that can be used to answer all teacher's query. Students also can ask a quetion and give a comment for every learning material post.

Blog is a web application which accomodate periodically post on a common web page. That kind of website usually can be used by all of the internet user, appropriate to the topic and purpose from the blog user. Concomitant with its progress, blog is more widely used as a personal site and a self-actualization media or sosialization media. Blog is a name that firstly used by Jorn Barger on December 1997. Jorn Barger used the name *Weblog* to mention the group personal website.

This is called as an indirect learning. In the indirect learning, studying-teaching process occur with the lag time (time difference), physically teacher and the students are in the different place so that the students can learn it anytime and anywhere.

Especially in Science learning, it is very necessary to present any kind of source and media to help the students in increasing their competence of understanding the material. Generally, science is a large human knowledge that reached by observing and sistematically experimental, and be explained by the rules, laws, pricipals, theories, and hypotheses assistance.

The using of media in science learning process is very helpful in increasing the process skills which has been a characteristic of science. Process skillsaretheskills acquiredfrom thetraining of mentalabilities, physical, socialandbasicskillsas an activator of higher skills (Wahyana, 1997). Fundamental capabilities that have been developed will eventually beaskill. Science process skills defined by Paolo and Marten (in Carin, 1993:5) is (1) observed, (2) trying to observe what is observed, (3) using the new knowledge to predict what will happens, (4) test the prediction sunder conditions to see if the forecast is correct.

Based onthe research, obtained the fact thatusing aweblogas a oflearningmakesstudentsmore interestedinfollowing thelearning materials. Besides, the use ofWeblogsas alearningmediacanalsoincrease theactivity of studentsstudyingbothinside andoutside the classroom. Andthe statistical dataalsogave a positive resultfrom the use of Weblogsin science teachingthat is the price of t=8.933 and table(at the significance level( $\alpha$ ) =0.05 with 58 degrees of freedom) is 2.002, it can be concluded that the internet as a media of learning has a positive effecton students science learning results.

#### References

Kebudayaan.

Warsita, Bambang. (2008). Teknologi Pembelajaran Landasan & Aplikasinya. Jakarta: Rineka Cipta Rafi'i, Muhammad. (2009). 1 Jam Membuat Blog Dengan Blogspot. Surabaya: Tiara aksa Niken Ariani dan Dany Haryanto. (2010). Pembelajaran Multi Media Di Sekolah. Jakarta: Prestasi Pustaka Ihsan Fuad.H.Drs. (2008). Dasar-dasar Kependidikan Komponen MKDK. Jakarta: Rineka Cipta Sunarto dan Agung Hartono.M. (2008). Perkembangan Peserta Didik. Jakarta: Rineka Cipta Suyono dan Hariyanto. (2011). Belajar Dan Pembelajaran. Bandung: Remaja Rosdakarya. Asep Jihad dan Abdul Haris. (2008). Evaluasi Pembelajaran. Yogyakarta: Multi Pressindo Suryosubroto.B.Drs. (2009). Proses Belajar Mengajar Di Sekolah (edisi revisi). Jakarta: Rineka Cipta Samatowa, Usman. (2011). Pembelajaran IPA di Sekolah Dasar. Jakarta: PT Indeks Sudjana Nana.DR. (2010). Penilain Hasil Proses Belajar Mengajar. Bandung: PT Remaja Rosdakarya Triantono.M.Pd. (2010). Model Pembelajaran Terpadu. Jakarta: PT Bumi Aksara Indriana Dina. (2011). Ragam Alat Bantu Media Pembelajaran. Jogjakarta: Diva Press Tiantono. (2007). Model Pembelajaran Terpadu Dalam Teori Dan Praktek. Jakarta: Prestasi Pustaka Dimyati dan Mudjiono. (2011). Belajar dan Pembelajaran. Bandung: PT Remaja Rosdakarya Sugiono.Prof.Dr. (2010). Metode Penelitian Pendidikan. Bandung: Alfabeta Supriyadi, Dedi. (1997/1998). Kebudayaan dan Perkembangan Iptek. Bandung: Departemen Pendidikan dan Musfiqon.HM.M.Pd. (2012). Pengembangan Media & Sumber Pembelajaran. Jakarta: Prestasi Pustaka

Fahrurrozi. (2011). *Blogbastis*. Jakarta: Mediakita

Sugiono.Prof.Dr. (2010). Metode Penelitian Administrasi. Bandung: Alfabeta

Ridwan.Drs.M.B.A. (2009). Belajar Mudah Penelitian Untuk Guru-Karyawan dan Penelitian Pemula. Bandung: Alfabeta.