BULETIN EDUC
1/2015
FACULTY OF EDUCATIONAL STUDIES

Incoming Event

Developing Students’ Mathematical Thinking: How Far Have We Come?

Malaysian students’ poor performance in the newly implemented Form Three Assessment (Pentaksiran Tingkatan 3, PT3), TIMSS and PISA had spurred many debates and criticism on the quality of our students’ learning in mathematics and science. Since the inception of the Integrated Curriculum for Secondary School in 1989, the aim of secondary mathematics had been steadfast on “developing individuals who are able to think mathematically and who can apply mathematical knowledge effectively and responsibly in solving problems and making decisions”. How far have we come? Are the classroom activities, assessment tasks and assessment questions geared towards cultivating mathematical thinking and decision
There has been vast misalignment between the intended curriculum (the one prescribed by policy makers), the implemented curriculum (the one that is actually carried out by teachers in their classrooms), and the attained curriculum (the one learnt by students or on what was examined). Can the large number of students getting as in mathematics for Lower Secondary School Evaluation (PMR) and Malaysian School Certificate (SPM) be used as indicators on the success in developing students’ thinking?

This paper discusses on what is meant by mathematical thinking. There has not been a conclusive definition on mathematical thinking because some view it as a process or some as outcome. Mathematical thinking is the foundation to do reasoning and problem solving and to develop conceptual knowledge as opposed to procedural knowledge. Several findings of studies that focused on students’ ability to provide reasoning and give meanings to concepts and algorithms were highlighted. Students’ development in geometric thinking based van Hiele’s levels of geometric thinking in learning shapes and spaces is also discussed. van Hiele’s levels of geometric thinking includes higher order thinking and decision making skills, and acquisition of mathematical concepts to enable learners to operate at higher levels in van Hiele’s theory. The role of metacognition in facilitating mathematical thinking is also deliberated. Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning. The paper also shares on the role of technology in facilitating mathematics thinking.

Overview of students’ performance in mathematics in PT3, PMR, SPM, Trends in International Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA) is provided. In concluding on the current status of students’ performance in Malaysian school mathematics, the evidences showed that there exists discrepancy between the international standards and national standards used in determining students’ performance.

This paper has highlighted that generally, Malaysian students are not meeting the international benchmark for mathematics performance. This may be partially contributed by students’ inability to think mathematically, thus they are not able to translate the contexts given and to use mathematics to provide a solution. Factors that may contribute to this phenomenon are further examined from the perspectives of the curriculum, the instruction and the assessment. The present curriculum may not be able to support the initiative to focus on higher order thinking skills (HOTS), as can be concluded from the expected outcomes stated in the curriculum guides. In light of instruction, although it has been suggested since 20 years ago, constructivist teaching has not been a preference of Malaysian teachers. Nevertheless, the shift to school based assessment, the initiative on HOTS and the change in examination format to include more challenging questions such those given in PT3, TIMSS and PISA may well elicit classroom atmosphere that cultivate HOTS as well as critical thinking and creative thinking. To provide support for learning, the school textbooks need to be greatly improved. The contents, contexts and examples do not stimulate students’ thinking. As for assessment, as long as the ‘teaching for examination’ culture is strong and the right concept of school-based assessment is not implemented, not much change will happen in classroom instruction and the aspiration to get our students to think mathematically will be far from reality.
# New research projects in 2015

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<th>Researcher</th>
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<td>Arshad Abd Samad</td>
<td>Universiti Pendidikan Sultan Idris</td>
<td>Acquisition of English Pronouns by 3-5 Year Old Children in Malaysia</td>
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<td>Umi Kalthom Abd Manaf</td>
<td>Majlis Amanah Rakyat</td>
<td>The Impact of MRSM Homeroom Curriculum on Students Nobel Characteristics and Personality</td>
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<td>Habibah Abd Jalil</td>
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<td>Mas Nida Md Khambari</td>
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<td>Nurzatulshima Kamarudin</td>
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<td>Soh Kim Geok</td>
<td>Universiti Putra Malaysia GP - IPS</td>
<td>Designing an Intervention Programme To Improve Physical Activity, Mental Health and Dietary Behaviore Among Undergraduate Female Students in Malaysia</td>
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<td>Nor Aniza Ahmad</td>
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<td>Siti Aishah Hassan</td>
<td>Kementerian Pendidikan Malaysia FRGS</td>
<td>Cognitive distortion, emotional; suppression and religiosity among victims of 2014/2015 flood in Malaysia: A Psycho -spiritual Model of Post-traumatic Stress Disorder (PTSD) using Electroencephalography (EEG)</td>
<td>83000</td>
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Several publications were published in citation index journal (CIJ) by the authors from Faculty of Educational Studies (selected abstract)


ABSTRACT
Problem Statement: The Internet as a tool that presents many challenges has drawn the attention of researchers in the field of education and especially foreign language teaching. However, there has been a lack of information about the true nature of these environments. In recent years, determination of the patterns of negotiation of meaning as a way to delve in these environments has grown in popularity.

Purpose of the Study: The current study was an effort to determine the types and frequencies of negotiation of meaning in the interaction of Malaysian students as English as a second language learners and, furthermore, to compare findings of this study with correspondent previous studies. To this end, two research questions were posed for this study: (a) what types of negotiation of meaning emerge in text-based synchronous CMC environments? and (b) Are there any differences between findings of this study and previous studies in terms of negotiation of meaning functions in this environment?

Method: Participants of this study were fourteen English as second language learners at Universiti Putra Malaysia (UPM). They were involved in a series of discussions over selected short stories. Analysis of students’ chat logs was carried out through computer - mediated discourse analysis (CMDA).

Findings and Results: This study yielded 10 types of functions in negotiation of meaning, which are clarification request, confirmation, confirmation check, correction or self correction, elaboration, elaboration request, reply clarification or definition, reply confirmation, reply elaboration, and vocabulary check. Furthermore, findings of this study indicated that students negotiated with an average of 2.10 per 100 words. According to the findings of this study, the most - frequently used functions were confirmation, elaboration, and elaboration request and the least frequently used functions were vocabulary check, reply confirmation, and reply clarification. The findings of this study were in line with the findings of previous studies in that the proficiency of the participants influences the amount of negotiation for meaning strategies that occur.

Conclusions and Recommendations: Findings of this study will give insight to teachers, learners, and researchers in the field of SLA and will help to sustain their liveliness and curiosity. Taking into account the current situation of Malaysia as the country that host so many international students from all over the world, future studies of these kinds can focus on examining the factor of proficiency in different dyads and its effect on students’ interactions in terms of negotiation of meaning.

Keywords: Computer – mediated communication (CMC); computer–mediated discourse analysis (CMDA); negotiation of meaning, teaching English as a Second Language; Language learning.

**Purpose**
This paper aims to propose a conceptual model of philanthropic behavior of volunteers in the health care sector.

**Design/methodology/approach**
This study is based on an extensive review of past research on philanthropic behavior. To conduct the literature review, keywords such as philanthropy, philanthropic behavior, giving, donating, competencies, volunteering and social network in health care were identified.

**Findings**
From the literature reviewed, three groups of antecedents of philanthropic behavior among health care volunteers (HCVs) were identified, viz., individual factors, social factors and organizational factors. This paper proposes social network as a mediating variable in linking the three groups of antecedents with philanthropic behavior. The paper offers a number of propositions which explain the proposed model of philanthropic behavior of HCVs.

**Practical implications**
Further research is suggested to test and validate the framework to provide empirical evidence. Upon model validation, the paper could offer practical interventions for human resource development (HRD) managers to assist philanthropic-based organization toward developing and managing philanthropic behavior of HCVs. The paper highlights the importance of social network to promote individuals to engage in philanthropic actions.

**Originality/value**
The paper yields a new approach in theorizing philanthropic behavior among HCVs by integrating the theory of planned behavior, social identity approach and organizational support theory. The proposed social network as a mediator could provide new insights to the HRD practitioners on developing philanthropic behavior among HCVs subject to model validation. The research contributes to literature in philanthropy, HRD and community development.

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**ABSTRACT**
This paper develops a theoretical model of the determinants of e-learning satisfaction in teaching and learning among secondary school teachers. It is based on reviews of past studies on satisfaction in using information technology systems. Three potential groups of determinants of satisfaction among secondary school teachers were identified; user-related characteristics, organisational-related characteristics and the e-learning-system characteristics. Usage is established as a mediating variable between the three potential groups of determinants and satisfaction towards e-learning. Future research could provide a more definitive theoretical statement of e-learning satisfaction and develop an additional proposition which could be derived from a more refined theory. The research yields a theoretical framework that outlines the predictive potential of the three groups of key factors in explaining e-learning satisfaction among secondary school teachers. The factors can be considered when developing future continuous professional development courses and intervention programmes when proposing a new innovation in the curriculum.

**Keywords:** E-learning, learning management system, satisfaction, usage, secondary school teachers

**ABSTRACTS**

Despite the number of studies investigating the perceived effectiveness of campus-based leadership development programming among undergraduates, most have focused on programme outcomes and few have investigated the role of the campus environment in enhancing students’ motivation to lead, particularly in non-Western contexts. To address these gaps, the current study investigated the relationship between perceived campus support for leadership development and both campus leadership involvement and undergraduate students’ motivation to lead. Data were gathered from 368 undergraduates from Malaysian public institutions of higher learning. An instrument to measure perceived campus support for leadership was developed through extensive review of the related literature. Exploratory multiple stepwise regression results showed that extent of involvement in leadership on campus, perceived quality of leadership training, perceived leadership opportunities on campus, quality of staff support for leadership on campus and programme of study accounted for a significant amount of the variance in predicting motivation to lead. The results lend initial support for the need for more experiential learning opportunities, high-quality training and greater staff–student engagement to enhance student motivation to lead. The findings draw particular attention to current university leadership training approaches that focus solely on transfer of skills and knowledge, such as those still employed in many universities. Implications for improving undergraduate student motivation to lead are discussed.

**Keywords:** Leadership; motivation; undergraduates; campus; Asia; Malaysia


**ABSTRACTS**

The purpose of this paper is to further the understanding of island sport tourism in Sabah, Malaysia. Specifically, the authors utilised the push and pull theory to examine how motives and destination image attract sport tourists to spend their holidays in Sipadan Island, Sabah, Malaysia. Findings indicate that domestic sport tourists were more significantly motivated by intellectual, social, stimulus-avoidance and competence mastery motives than international sport tourists. With respect to the pull factors, result shows some difference in perceptions of destination image between domestic and international sport tourists. The findings of the study suggest that: (1) market segmentation based on demographic profiles can be identified, (2) four push motives should be emphasized on promotional efforts and (3) unique packages of sport tourism experiences should be developed in regards to sport tourism in Sipadan Island, Malaysia.

**Keywords:** sport tourism, travel motivation, island tourism, push and pull factors.
COMING EVENTS

ICERP 2015 - (International Conference on Educational Research and Practice) on 25th – 26th August 2015

CALL FOR PAPERS
University Putra Malaysia
www.icerp2015.upm.edu.my

THE 3RD INTERNATIONAL CONFERENCE ON EDUCATIONAL RESEARCH AND PRACTICE 2015
ICERP 2015

Professional Educators as Global Leaders

Date: 25th – 26th August, 2015
Venue: The Everlyfotel, Putrajaya
Organiser: Faculty of Educational Studies, Universiti Putra Malaysia

The 3rd International Conference on Educational Research and Practice (ICERP) Universiti Putra Malaysia warmly invites you to the 3rd International Conference on Educational Research and Practice (ICERP) that will be held from August 25th – 26th 2015.

Theme: Professional Educators as Global Leaders

This international conference will provide an excellent opportunity for teachers, researcher, practitioners and scholars from around the globe to share the latest findings and explore the field of education and human resource development in the era of globalization.

Objectives:

- To discuss comparative perspectives on real issues and challenges that affect professional educators of global leaders
- To disseminate research findings that have impacts on professional educators as global leaders
- To provide a platform for future global networking among scholars, practitioners, and educators in the field of education and human resource development

Sub-Themes:

- Educational Leadership
- Education and Human Resource Development
- Evaluation and Curriculum Development
- Teacher Education
- Educational Management
- Technology and Information Technology
- Mathematics and Science Education
- Reading and Language Education
- Visual and Performing Arts Education
- Research and Evaluation
- Inclusion and Diversity
- Sustainable Development
- Performance Assessment
- In-service Training and Professional Development
- Management, Education, Psychology, Sociology, Anthropology, Philosophy, Economics, and other Humanities

Work-in-Progress Papers: Those who are submitting a work-in-progress paper must provide an extended summary of the paper in no more than 2,000 words. These papers will be scheduled for presentation and the abstracts will be included in the conference program. Work-in-progress (WIP) papers can be developed into conceptual frameworks based on extensive literature review, or research in progress papers. The presentation will be concluded with a 5-minute Q&A.

Submission dates:

Abstract submission deadline: May 27th, 2015

Notification of acceptance to Authors: June 3rd, 2015

Revised camera-ready submission deadline: June 30th, 2015

Please send all submissions to the conference secretariat icerp2015.upm.edu.my

Conference Registration:

- Early Bird Registration: RM700 (Early bird)
- Full Fee Registration: RM850 (After July 31st, 2015)

Conference Schedules:

- Pre-conference (24th August 2015)
- Conference (25th – 26th August 2015)

Refereed papers will be published in the conference proceedings. A number of selected refereed papers will be selected to be awarded the best paper prize. Authors of selected papers will also be invited to submit an extended version of their works for review and publication in one of the following journals: Malaysian Journal of Educational Research (MJER), Malaysian Journal of Learning and Instruction (MJLI), and International Journal of Education and Training (IJET).

Enquiries and Further information can be directed to:

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E-mail: icerp2015.upm@gmail.com

For further details on the conference, please visit:
http://www.icerp2015.upm.edu.my/icerp2015/upm.edu.my/icerp2015@gmail.com
Pengaruh Kepercayaan, Motivasi dan Niat Terhadap Golongan Belia dalam Aktiviti Sukarela di Malaysia
Siti Raba’ah Hamzah*, Turiman Suandi & Azimi Hamzah

2. Daya Tahan dalam Kalangan Guru Alaf 21
Mohd Salmi Osman*, Maria Chong Abdullah, Abdul Aziz Ismail & Samsilah Roslan


4. Perbezaan Tahap Kesetaraan Umur Visual Motor Integrasi Kanak-Kanak Tadika Shamsulariffin Samsudin*, Borhannudin Abdullah & Siti Hajar Mat

5. Perubahan Prestasi Fizikal dan Tumbesaran dalam Kalangan Murid Berumur di antara 9 Tahun Hingga 12 Tahun
Mohd Rozilee Wazir Norjali Wazir*, Saidon Amri & Aris Fazil Haji Ujang
A congratulation to Dr. Ghazali Lateh from the Department of Education and Humanities has been selected as the Vice-Chancellor's Fellowship Award 2014 (Category: Young Educators Award) at Majlis Gemilang Akademia Putra.

A student of Bachelor of Education (Teaching English as a First Language), namely Tian Ling Wong won the Category Award for the Best Youth Development Volunteer organized by the Ministry of Education. He received the prize of RM1, 000.00 along with a certificate and a trophy.
SIGNIFICANT EVENT (JAN – JUNE 2015)

2 February 2015 (Workshop LMI)

27 February 2015 (Malay Version) & 6 March 2015 -- Postgraduate New Students

3 March 2015 -- Visit from UCSI University
12 March 2015 -- Visit from SMK Durian Tunggal, Melaka

13 March 2015 -- MOU with Glyndwr University

24 March 2015 -- MOU with University Japan
26 March 2015 -- Program 5 Sekolah Selangkah ke Menara Gading

2 April 2015 -- Visit from Delegation UNTIRTA, Indonesia

2 April 2015 -- Evaluation Program PBMP JPBK
9-10 May 2015 -- Post-graduate Open Day & Exhibition – Dewan Besar, PKKSSAAS

11 June 2015 -- Visitor from Nigeria
**CONTACT US:**

**BULETIN EDUC** merupakan buletin Fakulti Pengajian Pendidikan dan wadah dalam mempromosi fungsi Fakulti Pengajian Pendidikan, UPM.

1. Buletin akan dikeluarkan dua kali setahun.
4. Semua sumbangan boleh dihantar terus kepada sitirabaahhamzah@gmail.com
5. Sebarang pertanyaan berkenaan BULETIN EDUC sila majukan kepada sekretariat buletin: Tel: 03-89468133/03-89471131 Email: shahrulraziz@upm.edu.my/eri@upm.edu.my