

International Conference on Education 2016 (ICE2016)

Propagating Quality Education: Integrating Thinking in the Classrooms

18 – 19 October 2016

**Meritz Hotel
Miri, Sarawak
Malaysia**



PROGRAMME & ABSTRACTS

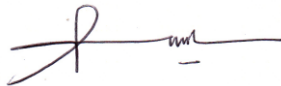
Message From Datuk Hajah Fatimah Abdullah



This conference particularly sets out to encourage the interaction of research and academic communities in a formal setting to present and to discuss new and current work in propagating quality education. We greatly appreciate both local and international contributions particularly in quality education research that specifically emphasises integration of higher order thinking in the 21st century classroom. In addition, this conference hopes to establish a platform for intellectual exchanges and cross-cultural communication across regional boundaries as well as to achieve educational reforms through propagation of quality education. It is our sincere hope that this conference will be a invaluable opportunity for teachers and educators to generalize, conceptualize, and disseminate the professional knowledge and educational practice in recent years.

This conference also paves the way for smart collaboration and partnership with corporate sectors in the educational development, particularly in Sarawak. With robust involvement of the corporate sectors, continuous partnership will be promoted and facilitated which would benefits all parties involved in years to come. This strategic partnership is indeed instrumental in mobilizing the concerted nation-building efforts by the government.

I trust that this conference will be able to stimulate further study and research in quality education. Once again, a heartfelt thanks to all presenters, contributors and participants for making this conference a resounding success. Thank you.



YB Datuk Hajah Fatimah Abdullah
Patron

Minister for Welfare, Women & Community Wellbeing Sarawak

Message From Dr Zulwali Kifi Bin Marawi



Bismillahirrahmanirahim

Assalamualaikum Warahmatulahi Wabarakatuh

Praise be to Allah the Almighty, who grants us His permission to be at this International Conference on Education (ICE2016) themed *"Propagating Quality Education: Integrating Thinking in the classrooms"*.

I would like to take this opportunity to congratulate Sarawak Association for the Development of Professionalism in Education (PROFES) and the Institute of Teacher Education Sarawak Campus, Miri, Sarawak for organizing their first international conference in the Northern Region of Sarawak. The theme of this conference is consistent with the current emphasis on our education policy of addressing the issues and challenges toward providing equal and quality education for all in the region.

I am confident that this international conference will be able to offer a platform for theorists and practitioners to share their ideas and to voice their views and concerns about current educational issues, challenges and opportunities in order to raise the status of education in Malaysia to greater heights.

Finally, it is my hope that the plenary and parallel sessions will stimulate a meaningful professional dialogue between policy planners, implementers, classroom practitioners and students which in turn will enhance further development in the educational field.

Dr. Zulwali Kifi Bin Marawi

Chairman

Sarawak Association for the Development of Professionalism in
Education (PROFES)

Message From Dr Azian T.S. Abdullah



I would like to take this opportunity to congratulate PROFES for taking the initiative to collaborate with Institute of Teacher Education Sarawak Campus, Miri, Sarawak to organise this International Conference on Education (ICE2016). It is my hope that this collaboration will continue in future seminars and conferences.

The theme for this conference is indeed apt as the notion of reasoning is also an area which is incorporated in KSSR. Thinking is not only found within the confines of the intellectuals but also in our young children who are capable of thinking outside the box. By incorporating thinking skills in the classrooms, both teachers and students are able to foster deep learning through the phases of immersion, investigation, coalescence and demonstration of learning. Throughout these phases they are able to wonder, build background knowledge, develop questions, search for new information, synthesize information, demonstrate an understanding and share their new learning with others. This further promotes inquiry which helps them probe deeper meaning, encourage collaboration and foster the development of critical thinking skills in the classrooms. Hence, this conference is the best platform to propagate quality sharing of ideas and practice among educators and researchers.

My fervent hope is that all teacher training institutes will make time for making this conference a success.

Dr Azian T.S. Abdullah

Rector

Institute of Teacher Education Malaysia

Message From Mr. Jamiran Bin Salam



We are honoured to work together with PROFES to launch ICE2016 in Miri, Sarawak to propagate quality education in the country especially Sarawak. This collaboration provides a platform for the meeting of minds and sharing of experiences amongst local and international researchers and educators. Hence, we believe it would propagate creative ideas and innovative actions for integrating High Order Thinking Skills for teaching and learning in classrooms.

This conference also provide a great opportunity for educational practitioners in this region to exchange ideas and enhance future educational networking with global education entities and professionals. We sincerely hope that the outcome from this conference would not be limited to continuous professional development of participants, but also to the teachers in this region and the development of our teacher trainees' teaching profession in the future. The experiences by all participants during this two day conference would inevitably give rise to new crops of teaching and learning ideas in their respective schools and institutions.

Together we pray that this endeavour would give a great impact on the education development in the region and the country. Thank you and our appreciation to all for their great support and efforts to make this significant educational event a reality in Miri.

Mr. Jamiran Bin Salam

Director

Institute of Teacher Education Sarawak Campus,
Miri, Sarawak, Malaysia

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ICE2016 Conference Schedule

Day 1: 18 October 2016 (Tuesday)

Time	Room 1 (Ball Room)	Room 2 (Periwinkle Room)	Room 3 (Orchid Room)	Room 4 (Jasmine Room)	Room 5 (Heliconia Room)
0800-0905	Parallel Oral Presentation				
		Session 1	Session 2	Session 3	Session 4
0830-1000	Posters Presentation				
0930-1130	Opening Ceremony (Ball Room)				
1145-1255	<p>Keynote Speech1 (Ball Room) Chairperson: Dr Norsarihan Ahmad</p> <p>Keynote Speaker: Associate Professor Dr Lee Kean Hua (Faculty of Psychology and Education, Universiti Malaysia Sabah) Keynote Topic : Teacher Professional Development And 21st Century Learning : Finding The Optimal Mix</p>				
1300-1355	Lunch				
1400-1500	<p>Keynote Speech 2 (Ball Room) Chairperson: Mdm Lany Bala Aching</p> <p>Keynote Speaker : Associate Professor Dr Tan Choon Keong (Faculty of Psychology and Education, Universiti Malaysia Sabah) Keynote Topic : Multimedia For Creative Teaching And Learning Via Web 2.0 Technology</p>				
1510-1745	Parallel Oral Presentation				
	Session 5	Session 6	Session 7	Session 8	Session 9

Day 2: 19 October 2016 (Wednesday)

Time	Room 1 (Ball Room)	Room 2 (Periwinkle Room)	Room 3 (Orchid Room)	Room 4 (Jasmine Room)	Room 5 (Heliconia Room)
0800-0900	Keynote Speech 3 (Ball Room) Chairperson: Mdm Lany Bala Aching Keynote Speaker : Datu Dr. Haji Adi Badiozaman @ Badio Zaman bin Tuah (Director of Biro Perkhidmatan Pendidikan, Majlis Islam Sarawak, Malaysia) Keynote Topic : Is The Curriculum, Delivery And Assessment Processes In The Education System Foster A Culture Of Quality?				
0915-1020	Parallel Oral Presentation				
	Session 10	Session 11	Session 12	Session 13	Session 14
1045-1300	Parallel Oral Presentation / Workshops				
	Session 15	Workshop 1	Workshop 2	Session 16	Session 17
1045-1300	Workshop 1 (Room 2- Periwinkle Room) Chairperson: Phor Zhi Ying Professor Dr Henry Ma (Associate Dean of School of Design, The Hong Kong Polytechnic University, Hong Kong) Workshop : How To Nurture Creative Thinking				
1045-1300	Workshop 2 (Room 3-Orchid Room) Chairperson: Shanu Preya A/P Thannimalai Associate Professor Dr Lee Kean Wah & Associate Professor Dr Tan Choon Keong (Faculty of Psychology and Education, Universiti Malaysia Sabah) Workshop: Create Web 2.0 Based Teaching And Learning Materials				
1300-1400	Lunch				
1400-1500	Keynote Speech 4 (Ball Room) Chairperson: Dr Norsarihan Ahmad Keynote Speaker : Professor Dr Henry Ma (Associate Dean of School of Design, The Hong Kong Polytechnic University, Hong Kong) Keynote Topic : How To Nurture Creative Thinking				
1510-1636	Parallel Oral Presentation				
		Session 18	Session 19	Session 20	Session 21
1700	Closing Ceremony (Ball Room)				

Oral Presentation Schedule

Session 1	Chairperson: Safri Anugerah Illahi bin Ramle
8.00-8.20	Ciri Pembelajaran Dan Pengajaran Guru Cemerlang Bahasa Melayu Sekolah Menengah Di Negeri Sarawak Ong Sze Chong, Pau Kek Ming, Zamri Mahamod, Mohd Izham Mohd Hamzah
8:22-8:42	Pembacaan Heuristik Dan Hermeneutik Dalam Pembelajaran Dan Pengajaran Pantun Kanak-Kanak Aida Qamariah Binti Ishak, Salinah Ja'afar
8:44-9:04	Keberkesanan Modul TPACK Dalam Pengajaran Dan Pembelajaran Novel Silir Daksina Noel Jimbai, Hasiah Binti Pukim, Rohani Mohamad Eded, Ruhizan Md Yassin, Zamri Mahamod
Session 2	Chairperson: Nurul Anissma Nasuha binti Irfham
8.00-8.20	The Relationship Model Among Usefulness Of Web 2.0 And Meta Knowledge Domain In The 21st Century Learning Framework Dr Abdul Hadi Mat Dawi, Dr. Yahya Osman , Ridza Ahmad Nizam Abdul Raof
8:22-8:42	Pendekatan Pembelajaran Reciprocal dalam Kalangan Murid Peribumi Bidayah di Sarawak, Malaysia. Celinea Lasan, Zamri Mahamod
8:44-9:04	Imagitif : Memperkembangkan Pemikiran Kritikal Murid Tahap Satu Sekolah Rendah Mazlina Mahmood , Zakiah Salleh, Mariah Ismail
Session 3	Chairperson: Khairul Lutfi
8.00-8.20	Meningkatkan Penguasaan Pelajar Dalam Konsep Fotosintesis Melalui Inkuiri Berstruktur Linggi Anak Entain
8:22-8:42	Kaedah Token C.O.C Koperatif Dalam Meningkatkan Motivasi Pencapaian Murid Hiew Sing Siong, Shahlan Surat
8:44-9:04	Increase the Motivation Of Year Six Pupils With "S-T-D" Strategy Lee Swee Poh, Mohd Mahzan Awang, Shahlan Surat
Session 4	Chairperson: Ng Yan Mei
8.00-8.20	An Integral ASIE Instructional Design Model for Teachers in The 21st Century: <i>Strategies to generate thinking skills in teaching and learning environment</i> Dr Ismail Md Zain, Zain Hazmi bin Zain Baharin
8:22-8:42	Pemimpin Instruksional Dan Keberkesanan Sekolah Di Daerah Sibul (Instructional leadership and schools effectiveness in Sibul.) Dr Ling Song Kai
8:44-9:04	Konsep Seni Op Dalam Pendidikan Prasekolah Dr Ling Pik Kuong
Session 5	Chairperson: Shanu Preya A/P Thannimalai
3:10-3:30	Teknik SPICY Q dalam penyoalan KBAT Dr Tiwi bt Kamidin

3:32-3:52	KBAT dalam pentaksiran matematik Tahun 6 Dr Ong Ewe Gnoh
3:54-4:14	Amalan pedagogi abad ke 21 di Sekolah Menengah Hajjah Laila Taib dalam usaha meningkatkan kemahiran berfikir aras tinggi pelajar Judah Binti Ahmad, Hajjah Binti Mohtar, Tiwi Binti Kamidin
4:16-4:36	Using informal education strategies to develop higher order thinking in science classrooms. Dr Dave Warren
4.38-5.00	Exploring a repertoire of teaching and learning activities in the 21 century classrooms Dr Chua Lee Chuan
5.02-5.22	Komunikasi Kepimpinan Berprestasi Tinggi Dan Hubungannya Dengan Dogma Dr Shukri Bin Zain
5.24-5.44	Penggunaan Buku Dan Kanak-Kanak Prasekolah Bersama Rakan Sebaya Saayah Bte Abu
Session 6	
Session 6	Chairperson: Mitchele Gayle
3:10-3:30	Penguasaan Algoritma Bahagi Dalam Kalangan Murid Tahun 4 Menggunakan Kaedah "Lampu Isyarat" Izzat Syahir Bin Mohd Ramli, Siti Mistima Maat
3:32-3:52	Pengetahuan Asas, Keupayaan Dan Kemahiran Penyelesaian Masalah Pecahan Dalam Kalangan Murid Tahun 5 Nor Afifah Binti Mazlan, Md Yusoff Daud
3:54-4:14	Language Use and Attitude among Chinese Adolescents in Miri Hoon Swee Kim
4:16-4:36	Teaching English Literature In Malaysia In The 21st Century: Issues And Challenges Dr Nor Faridah Abdul Manaf, Dr Devi Arumugam
4.38-5.00	3-Trick Method Get It Right, Start To Write Catherine Janet Ak Tiwi, Hairani Binti Bujang
5.02-5.22	Tahap Penguasaan KBAT Bagi Petikan Jenis Cerpen B. Tamil Dalam Kalangan Pelajar PISMP Arthilechmy Suberamaniam, Malar Muthiah (Ph.D), Thilakavathy Rajagopal
5.24-5.44	Impak Bimbingan Sisc+ Dalam Meningkatkan Aplikasi Kbat Untuk Aspek Seni Bahasa Bahasa Melayu Tahun 5 Kiah Anak Sakudan, Noel Jimbai Anak Balang
Session 7	
Session 7	Chairperson: Lee Sze Yin
3:10-3:30	Kesediaan Dan Keperluan Pelajar Dalam Pembangunan M-Kandungan Secara Aplikasi Mudah Alih Bagi Elemen Pentaksiran Kemahiran Berfikir Aras Tinggi (M-Kbat) Pajuzi Awang, Norazah Nordin, Mohamad Siri Muslimin
3:32-3:52	Meningkatkan Kemahiran Dalam Pecahan Bentuk Termudah Dan Pecahan Setara Melalui Kaedah Petak Sifir 5 x 5 Phor Zhi Ying, Lu Chung Chin (Ph.D)
3:54-4:14	Penggunaan Kaedah Kotak Rumah dalam Penolakan Nombor Dua Digit dan Satu Digit Masidar Binti Sudar, Roslinda Rosli
4:16-4:36	Penggunaan Modul Ticking Clock Meningkatkan Kecekapan Fakta Asas Matematik Bagi Operasi Tambah dan Tolak Muhammad Ikmal bin Ibrahim, Roslinda Rosli
4.38-5.00	Elemen Multimedia Interaktif Dalam Penguasaan Kemahiran Belajar

	Dr Sharifah Fatimah Bt Wan Jamel, Haji Mohammad bin Seman
5.02-5.22	Teachers Understanding of Higher Order Thinking (HOT) In Mathematics Institution And How It Effects Students Learning Process Zahari Othman
5.24-5.44	Faktor Yang Mempengaruhi Penggunaan Alat Web 2.0 Dalam Pelaksanaan Kurikulum Program Berasaskan Pembelajaran Abad Ke-21 Di Institut Pendidikan Guru Dr. Yahya Osman, Dr. Abdul Hadi Mat Dawi, En. Mohd Zaki Jamaluddin
Session 8	Chairperson: Khairul Lutfi
3:10-3:30	Conceptions Of Scientific Evidence In Chemical Science Scenario Tasks Among Trainees In A Teacher Education Institute In Kuching Tan Ming Tang, Yahya Sedik, Lim Poh Moy, Murugan a/ Mini Ratamun
3:32-3:52	Penggunaan “Lesima” Dalam Penguasaan Pendaraban Melibatkan Nombor Dua Digit Bagi Murid Tahun 5 Lai Sze May, Lu Chung Chin (Ph.D)
3:54-4:14	Pendekatan Pembelajaran Bentuk Dan Spatial Geometri Matematik Dalam Kalangan Pelajar Sekolah Menengah Rendah Harian Dapatkan Satu Kajian Rintis Abdul Rashid Abdul Rahman, Kasran Mat Jidin, Suhaidah Tahir, Wan Ahmad Jaafar Wan Yahaya
4:16-4:36	Membantu Murid Tahun Empat Menguasai Topik Pecahan Dengan Kaedah Model Luas Siaw Mei Yee, Lu Chung Chin (Ph.D)
4.38-5.00	“A-Mz” Method In Learning Physical Quantity Tiong Siew Jen
5.02-5.22	Kualiti Pengajaran Matematik Dalam Kalangan Guru Pelatih Institut Pendidikan Guru Kampus Sarawak, Miri. Dr Hamden Gani, Dr Lu Chung Chin, Dr Hu Laey Nee, Cik Ernie Kho Siaw Nee, En. Narawi Abu Bakar
5.24-5.44	Mastercap Wong Ling Jie, Sii Tuong Sieng, Tiong Chiong Yew, Ernie Kho Siaw Nee, Dr Hu Laey Nee
Session 9	Chairperson: Ng Yan Mei
3:10-3:30	Kepentingan Pelaksanaan Kurikulum Pendidikan Kesihatan Dan Seksualiti Di Sekolah Rendah Pendidikan Khas (Program Integrasi Murid Bermasalah Pembelajaran) Di Malaysia. Doren Ruayah Herman
3:32-3:52	Teachers' Belief Of A Good Teacher Dr Kasran Mat Jiddin, Wong Yong Hui
3:54-4:14	Meningkatkan Domain Kognitif Dan Domain Psikomotor Murid Bekeperluan Khas (MBK) Melalui Pendekatan Teater Bagi Membangunkan Pendekatan P&P Yang Inovatif Dr Ghazali Ismail
4:16-4:36	Sekolah: Ke Arah Mewujudkan Kepimpinan Dan Pengurusan Yang Berkesan Norazleen Binti Mohamad Noor, Norlela Binti Ahmad
4.38-5.00	Penggunaan Response To Intervention (RTI) Dalam Penyelesaian Masalah Matematik Berayat Bagi Murid Berpencapaian Rendah Di Sekolah Rendah. Narawi Bin Abu Bakar, Mohd.Zaki Ishak
5.02-5.22	Kesan Pembelajaran Kaedah Jari Terhadap Ketepatan dan Kepantasan Mengira Matematik tahun satu Mastura Ghani, Siti Mistima Maat

5.24-5.44	Mengingat Otot-Otot Badan Melalui Kaedah 'Colour It Right' Felicia Ho Yieng Fang, Mohd. Taib Bin Harun
Session 10	Chairperson: Khairul Lutfi
9.15-9.35	Pembangunan Modul /BSE KSSR Dalam Meningkatkan Pelaksanaan Kbat Di Dalam Bilik Darjah Tracy Mensan, Dr. Lee Chuo Hiong, Dr. Balkisnah Shaharuddin, Kathleen Jimmy, Zailani Bin Jaya
9:37-9:57	Impak Pelaksanaan Kbat Melalui Bengkel Pembangunan Modul IBSE KSSR Kemasains Mohd Zailani Jaya, Tracy Anak Mensan, Balkisnah Shaharuddin, Kathleen Jimmy, Lee Chuo Hiong
9:59-10:19	Kemahiran pemikiran kritikal dalam pendidikan guru Datin Dr Bushro Bt Ali
Session 11	Chairperson: Nurul Anissha Nasuha binti Irham
9.15-9.35	Permasalahan Membaca Dalam Kalangan Murid Pemulihan Tahun Enam : Satu Kajian Kes Norlela Binti Ahmad, Norazleen Binti Mohamad Noor
9:37-9:57	The Use Of English Songs To Improve Speaking Skill Among Rural Pupils In Baram, Sarawak Syazwani Seli, Melor Md Yunus
9:59-10:19	The Preferred Second Language Learning Strategies Of Good Language Learners In Rural Schools Vimala Mookiah, Melor Md Yunus
Session 12	Chairperson: Lai Sze May
9.15-9.35	Keberkesanan Model Bar dalam Penyelesaian Masalah Matematik Berayat Murid Tahun Lima Hartini binti Ismail, Siti Mistima Maat
9:37-9:57	Penguasaan Fakta Asas Tolak Murid Lemah Tahun 4 Menggunakan Kaedah Kepala Jari Mohd Syazwan Bin Mansor Mutulili, Effandi Zakaria
9:59-10:19	Model Perbandingan: Menjawab Soalan Penaakulan Perkadaran Ng Yan Mei, Hu Laey Nee (Ph.D)
Session 13	Chairperson: Phor Zi Ying
9.15-9.35	"U Jump I Jump" :Improving Ikm Kuching Students Problem Solving Skill In Technical Mathematics Classroom Using Cooperative Learning Approach Fariedah Lal Chan
9:37-9:57	Penguasaan Pecahan Setara Dan Pecahan Bentuk Termudah Melalui Lakaran Jalur Pecahan Emily Wong Wuan Zin, Hu Laey Nee (Ph.D)
9:59-10:19	Meningkatkan Kemahiran murid tahun 2 mengelaskan khasiat makanan menggunakan peta pokok 2.0 Muhammad Nurfirdaus Bin Narawi, Zolkepele Harun
Session 14	Chairperson: Lilian Tang
9.15-9.35	Keberkesanan Pelaksanaan Aktiviti Kokurikulum Dalam Pembentukan Kemahiran Kepimpinan Fong Wee Lee, Mohd. Taib Bin Harun
9:37-9:57	Pendidikan awal robotik sekolah rendah : Sebuah ulasan

	Anna Felicia, Sabariah Sharif, Muralindran Mariappan, Wk Wong
9:59-10:19	Transformasi Pengajaran, Kesediaan Dan Kepemimpinan Guru Terhadap Penglibatan Pembelajaran Pelajar Sekolah Menengah Luar Bandar Sabah Mohd Yusof Abdulah (Ph.D), Roslee Talip (Ph.D), Dayang Fatimah
Session 15	Chairperson: Safri Anugerah Illahi bin Ramle
10:45-11:05	Menjana Kemahiran Berfikir Aras Tinggi Menerusi Model <i>Flipped Classroom</i>: Peluang dan Cabaran Pelaksanaan Pembelajaran Berasaskan Projek(PBL) dalam Kalangan Murid Prasekolah Abad ke 21 Saifudin Azam Shah, Nik Ashikin binti Nik Othman, Harnidah binti Termizi, Rosnani binti Karim, Rahimah binti Abd Rahman
11:07-11:27	Keberkesanan Modul Bio-Stem Dalam Pemupukan Kemahiran Abad Ke-21 Dr Lee Chuo Hiong, Kamisah Binti Osman (Prof.Dr)
11:29-11:49	Efikasi Kendiri Guru Mengaplikasi Elemen Kemahiran Berfikir Aras Tinggi (KBAT)Menerusi Proses Pengajaran dan Pembelajaran Sains Awal dalam Kalangan Murid-Murid Prasekolah Nik Ashikin binti Nik Othman, Nur Adharina binti Ja'afar, Umar Othman bin Mohammad Iliyas, Saifudin Azam Shah bin Ahmad, Ravichandran a/l Visuvanathan
11:51-12:11	Kesediaan Pelajar Program Ambilan Khas Penan Di IPG Kampus Sarawak Mengaplikasikan Kemahiran Berfikir Aras Tinggi Dr Magdeline Nor, Ling Snelus Anak Angking, Lany Bala Aching
12:13-12:33	Amalan Pedagogi Abad Ke-21 Dalam Kalangan Pelajar PISMP Rubiah Binti Ahmad, Dr. Wan Noor Siah Wan Abdullah, Dr. Yong May Lee, Noraishah Yusof
12:35-12:55	Communicative Language Teaching Method And Teacher Leadership Enhancing English Language In School-Based Assessment Shukri bin Zain (Ph.D), Susanna Corduva
Session 16	Chairperson: Mitchele Gayle
10:45-11:05	Meningkatkan Penguasaan Kemahiran Penambahan Dua Pecahan Wajar Yang Tidak Sama Penyebut Melalui Petak Pecahan Tan Boon Hua, Hamden Bin Gani (Ph.D)
11:07-11:27	Penggunaan Kaedah Sigai Dalam Meningkatkan Kemahiran Mendarab Sebarang Nombor Hingga Tiga Digit Dengan Satu Digit Wee Weang Weang, Balkisnah Shaharuddin (Ph.D)
11:29-11:49	Teknik Palang: Menjawab Soalan Pembahagian Nombor Dengan Nombor Dua Digit Henry Goh Keh Leong, Lu Chung Chin (Ph.D)
11:51-12:11	Penggunaan Kaedah "Siam Tu'ung Osundu" Bagi Membantu Murid Menguasai Sifir Ahmad Syawal Bin Mohamad, Effandi Bin Zakaria
12:13-12:33	Tahap kemahiran proses sains berkaitan topik biologi di kalangan guru bukan-sains sekolah rendah Dr Zulkefli bin Daud, Zakaria Mohamed Nor
12:35-12:55	Perspektif Pelajar Terhadap Penerapan Kemahiran Berfikir Aras Tinggi (KBAT) Dalam Subjek Biologi Di Daerah Limbang, Sarawak Law Hui Haw, Asmayati Binti Yahaya
Session 17	Chairperson: Lee Sze Yin
10:45-11:05	Penggunaan Bubblebbe Untuk Terapi Bagi Murid Bermasalah

	Pembelajaran Fathiyah Mohd Kamaruzaman, Nor Azwahanum Nor Shaid, Mohamed Hazeem Abdul Hamid, Siti Nasuha Zainudin, Noor Azierah Muhammad, Siti Aisyah Buhari, Mohamad Syazwan Che Hamzah
11:07-11:27	Transformasi Pengajaran Guru Melalui Maklum Balas Pasca Penyeliaan Cellia David, Sabariah Shariff
11:29-11:49	Transformasi Amalan Pengajaran Di Dalam Program Kelas Pendidikan Khas Integrasi Dengan Alat Pengurusan Grafik Moh Nor Bin Noh, Rozita Binti Che Nen
11:51-12:11	Piawaian Ujian Membaca Bukan Perkataan Sebagai Instrumen Menegenal Pasti Disleksia Al Quran: Satu Kajian Rintis Amiyamin Haji Mohamad Yusop, Prof Madya Dr. Mohd Nor Mamat, Prof Madya Dr S.Salahudin Suyurno
12:13-12:33	Sikap Terhadap Perubahan Guru Besar Dan Pengaruhnya Ke Atas Kepimpinan Instruksional Sekolah Rendah Di Samarahan, Sarawak Zulkeplee @ Ibrahim Bin Meni
12:35-12:55	Students And Lecturers' Perception On Meritocracy System In Malaysian Matriculation Colleges Mohammed Sani Ibrahim, Sii Ling @ Mee Ling
Session 18	
	Chairperson: Lilian Tang
3:10-3:30	通过合作学习法帮助学员掌握口语交际 (Penggunaan Kaedah Pembelajaran Koperatif Untuk Membantu Pelajar Menguasai Aspek Lisan Bahasa Cina) Lim Lee Ching
3:32-3:52	Penggunaan Teori Rasional Emotif Tingkah Laku Dalam Kalangan Guru Pelatih Bimbingan dan Kaunseling. Gumbang Anak Pura
3:54-4:14	Teknik Petak Bagi Menangani Masalah Kekemasan Penulisan Sekolah Rendah Subandi Kasidan, Olen Tabur, Saleena Binti Mohd Sukor
4.16-4.36	'Going Digital': Enhancing TPACK And Inspiring Digital Immigrant Teachers For 21st Century Teaching Through Professional Learning Community Cynthia C. James, Lee Kean Wah
Session 19	
	Chairperson: Lai Sze May
3:10-3:30	Applying a Collaborative Metacognitive Community into asynchronous text-based online discussion to investigate the performance of higher level thinking skills among novice teachers Dr Huang Chwei Ing
3:32-3:52	Young Junior: Satu Kajian Awal Dr Lu Chung Chin
3:54-4:14	Penggunaan kaedah bahagi suur (pagar) dalam penguasaan bahagi nombor bulat dengan nombor satu digit Siti Noor Iliana Zuraida Abidin, Roslinda Rosli
4.16-4.36	Improving Students' Mathematical Problem Solving Through Differentiated Instruction By Learning Styles: An Action Research Phey Suk Ling
Session 20	
	Chairperson: Ng Yan Mei
3:10-3:30	Integrasi Teknologi Dalam Bilik Darjah Sains: Adakah Kita Tahu Apa Yang Kita Perlu Tahu? Joshua Caseley Anak Akun, Fitri Suraya Mohamad

3:32-3:52	Kesedaran Metakognitif dan Pencapaian Pelajar Politeknik Dalam Matematik Pengurusan Chong Fung Yen@Azilina Chong, P.M. Dr. Hj. Baharom Mohamad
3:54-4:14	Pengintegrasian Permainan Digital Dalam Penyelesaian Masalah Penambahan Dan Penolakan Pecahan Mohamad Basri Nadzeri, Norazah Mohd Nordin
4.16-4.36	Penerapan Nilai Matematik Dalam Kalangan Guru Matematik Sekolah Menengah Kebangsaan Luar Bandar Law Hui Nong
Session 21	Chairperson: Nurul Anissma Nasuha binti Irham
3:10-3:30	Impak Pelaksanaan Pengajaran Dan Pembelajaran Abad Ke-21 Dalam Kalangan Guru Pelatih PISMP Institut Pendidikan Guru: Satu Kajian Fenomenologi Terhadap Cabaran Dan Manfaat Peralihan Kepada Model Pembelajaran “<i>Flipped Classroom</i>” Ravichandran a/l Visuvanathan, Saifudin Azam Shah bin Ahmad, Fairuz binti Abu Bakar
3:32-3:52	Masalah Pengajaran dan Pembelajaran Bahasa Melayu dalam Kalangan Murid Orang Asli di Malaysia Norizan Binti Mamat, Ramle Bin Abdullah
3:54-4:14	Meningkatkan Peratus Pencapaian Matematik Pelajar Tingkatan 5 Perdagangan Dalam Tajuk Graf Fungsi (II) dengan Kaedah “Duit Raya” Norhanani Binti Long
4.16-4.36	Pelandai Bulan Of The Iban Nelson Tandang Anak Edwin Unting

Poster Presentation Schedule

Number	Title
1	Bengkel <i>Inquiry Based Science In Education (IBSE)</i> Bagi KSSR (<i>Inquiry Based Science In Education (IBSE) Workshop For KSSR</i>) Kathleen Jimmy, Balkisnah bt. Shahrudin, Lee Chuo Hiong, Mohd. Zailani bin Jaya, Tracy anak Mensan
2	Alat Musik 3R (3R Musical Instruments) Bell Suut, Meges Laoi, Lawa Sultan, Ngalai Anak Belawing
3	IDEA (It's Darn Easy Ah) Lau Ung Hong, Lau Yong Siong, Lee Sze Yin, Tan Boon Hua
4	LIBERCUBE Kiu Kwong Xian, Lai Sze May, Phor Zhi Ying, Wee Weang Weang
5	通过听说法帮助国小生以华语说出完整的句子 (Listening And Speaking Helps National Primary School Pupils To Speak Complete Sentences In Chinese Language) Yee Soon Ling, Lim Lee Ching
6	Keberkesanan Permainan Ultimate Frisbee Terhadap Tahap Kecergasan Fizikal Berasaskan Kesihatan Pelajar Perempuan (The Effectiveness Of Ultimate Frisbee Towards Physical Fitness Level Among The Female Students) Lau Siew Wei, Tajul Arifin Muhamad
7	Penggunaan Kad Merit Bagi Meningkatkan Penglibatan Murid Dalam Kemahiran Asas Gimnastik Guling Depan (The Uses Of Merit Card To Enhance The Involvement Of Students In Basic Skills Of Gymnastics Front Roller) Hanelia Bt Aseh, Norlena Salamuddin
8	Penggunaan Muzik Bagi Meningkatkan Penglibatan Murid Dalam Aktiviti Pendidikan Jasmani (Method Of Using Music To Improve Students Involvement In Physical Education) Sia Ping Yieng, Tajul Arifin Muhamad
9	"Sound with Me" Program to Help Pupils in Mastering Construct 1 and 2 in LINUS 2.0 Norfaizrenah Afzan Mohd Salim, Melor Md Yunus
10	Teachers' Perspectives On The Use Of L1 In Language Classes In Rural Primary School In Bakong, Sarawak Gracia Daniel, Melor. Md Yunus
11	Reading Strategies To Develop Higher Order Thinking Skills (Hots) In Reading Comprehension Jenny Marto

12	<p>"Teknik Putaran" Dalam Mengenalpasti Nilai Anu Penolakan Pecahan Bagi Murid Tahun 5 ("Rotation Technique" For Identify Unknown Values Of Substraction For Fraction Among Year Five Pupils) Abd Rahim Bin Yahya, Effandi Zakaria</p>
13	<p>Enriching Pupils' Vocabulary By Promoting Self -Independent Learning In Reading Literature Programme. Hashrul Shazwan Idris, Melor Md Yunus</p>
14	<p>Using Language Game To Reduce The Number Of Subject-Verb Agreement Errors Of Primary Pupils In Baram Noor Azlee Jumaah</p>
15	<p>Kemahiran Menyelesaikan Operasi Bahagi Dengan Kaedah Akronim Murid Tahun Tiga (Skill In Solving Division By Acronym Method For Year Three) Nur'ain Sakiinah Bt Othman, Siti Mistima Bt Maat</p>
16	<p>Penguasaan Fakta Asas Darab Menggunakan Sifir Tambah Dapat Murid Tahun Lima. Tengku Nor Adina Bt Tg Mohamed Salim</p>
17	<p>The Secrets Of Successful Language Learners Jasidah Idang, Melor Md Yunus</p>
18	<p>Presenting Verbs-to-be to Extremely Weak Students: Tabulated Form vs Decision Tree Form – Which Is More Effective, Which Is More Preferable to the Students? Vipha Rianganand A/P Cham Ras @ Che Kok</p>
19	<p>Revealing The Secrets Of Good Language Learners: What Are Their Strategies? Dhachaini A/P Prabhakaran, Melor Md Yunus</p>
20	<p>Gaya Belajar Murid Pedalaman Bagi Mata Pelajaran Pendidikan Jasmani Perina Dross</p>
21	<p>Penggunaan Modul Pembelajaran Koperatif Dalam Meningkatkan Prestasi Mata Pelajaran Pendidikan Kesihatan (Use Of Cooperative Learning Module In Improving Health Education Performance) Hilda Entering, Denise Koh Choon Lian</p>
22	<p>Connotation in Learning Vocabulary: A Survey of Students' Perceptions Jeanzy Epin Justin, Melor Md Yunus</p>
23	<p>Using Foldables in Learning Literature Jesica Gambong Unting, Melor Md Yunus</p>
24	<p>Students' Perception and Attitude towards Diary Writing To Enhance Writing Skill Fariza Fletcher, Melor Md Yunus</p>

**Opening Ceremony of
International Conference on Education 2016 (ICE2016)
18 October 2016 (Tuesday)
Ballroom, Level 7, Hotel Meritz, Miri, Sarawak**

officiated by

**Yang Berhormat Datuk Hajah Fatimah Abdullah,
Minister for Welfare, Women & Community Wellbeing Sarawak
Patron of PROFES**

- 9.30 am : Arrival of Yang Berhormat Datuk Hajah Fatimah Abdullah,
Minister for Welfare, Women & Community Wellbeing Sarawak,
Patron of PROFES
- 9.45 am : Visit of exhibition booths
Poster presentation
- 10.00 am : Ceremony-Launching remarks / Opening speech by
Yang Berhormat Datuk Hajah Fatimah Abdullah,
Minister for Welfare, Women & Community Wellbeing Sarawak,
Patron PROFES
- 11.00 am : Press conference
- 11.30 am : Lunch & End of ceremony

Closing Speech
International Conference on Education 2016 (ICE2016)
19 October 2016 (Wednesday)
Ball Room, Level 7, Hotel Meritz, Miri, Sarawak

Closing speech by

Dr Azian T.S. Abdullah

Rector

Institute of Teacher Education Malaysia

-
- 5.00 pm : Arrival of Presenters and Participants
- 5.15 pm : Arrival of Rector of IPGM and Director of IPGKS
Negaraku Song
IPGM Song
Prayer recitation
Closing Speech by Rector of IPGM
Ibu Pertiwiku Song
End of ceremony

Oral Presentation Abstracts

Abstracts Session 1

Ciri Pembelajaran Dan Pengajaran Guru Cemerlang Sekolah Menengah Di Negeri Sarawak

(Malay Language Excellent Teachers Traits: A Case Study Of Secondary Schools In Sarawak)

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The purpose of this research is to study the teaching and learning pattern "excellent" trait found in secondary school Malay Language Excellent Teachers (GCBM) in the state of Sarawak. This research employs qualitative analysis. The qualitative method used in this research is case study. 6 GCBM are chosen in this case study. Five principals, twelve colleagues teaching the subject Bahasa Melayu and twelve pupils are chosen as sampel for this research to complement and reinforce the data from the interview of the GCBM. The data is analyzed using software N'Vivo. The theme, sub-theme and sub-sub theme for teaching and learning pattern of GCBM are identified. The qualitative data collected is used to explore the teaching and learning pattern of GCBM. The results from the aspect of teaching and learning of GCBM 1 until GCBM 6 did not show a clear significance as befits the post of GCBM held by them. In addition, the results of the research shows that GCBM fails to modify the techniques and approaches, use of teaching aids as well as the teaching and learning venue. On the other hand, all GCBM help the pupils to excel in examinations from the relevant levels of planning and preparation modules given to the pupils. From the study carried out, the model generated is Teaching and Learning Model GCBM (MPPGCBM). From the formulation of the elements in these model of GCBM, the researcher will determine two new models namely Effective Malay Language Teaching and Learning Model (MPPEBM) and Excellent Malay Language Teachers Model (MGBMCS). These two models can be used as reference by relevant authorities such as KPM, JPN, PPD, schools and pupils.

Keywords: teaching and learning pattern, excellent, trait, Malay Language Excellent Teachers

Pembacaan Heuristik Dan Hermeneutik Dalam Pembelajaran Dan Pengajaran Pantun Kanak-Kanak

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There is a variety of methods used in teaching children Bahasa Melayu. One of the renowned is integrated approach. Heuristic and Hermeneutic Reading (HRR) in children 'pantun' is also a teaching technique which employs this approach as it incorporates word components from 'pantun' to elaborate on its meaning. Hence, this research is conducted to elucidate on the application of HRR in the teaching and learning that uses children 'pantun' (CP). The purpose of this research is to

analyse the meanings in children 'pantun' using a method that focuses on one out of four definitive aspects in Riffaterre's Semiotic Theory (RST) approach; the Application of Heuristic and Hermeneutic Reading (HHR). This study uses textual analysis method and exploits selected 'pantun' from the book of 'Koleksi Pantun untuk Kanak-Kanak'. The hypothesis of this paper is aimed to reduce the children's arduousness in interpreting meanings from 'pantun' verses ultimately enable them to comprehend underlying messages precisely through HRR.

Keywords: Integrative Approach, Heuristic and Hermeneutic Reading, meanings, teaching and learning, children 'pantun'

Keberkesanan Modul TPACK dalam Pengajaran dan Pembelajaran (PdP) Novel Silir Daksina

(The Effectiveness of TPACK Module in Teaching and Learning of the Novel Silir Daksina)

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This research is to study the effectiveness of TPACK Module using the 21st Century Learning (PAK-21) approach in the teaching and learning of the novel 'Silir Daksina' written by Nizar Parman; which is a compulsory novel for the Form Five students to learn as their KOMSAS genre in Johor, Sabah, Sarawak and Labuan. The respondents for this action research are three (3) Malay Language teachers who are teaching the Form Five students. A total of sixty four students are involved in the data collection. This action research is also conducted in three sub-urban schools in Kanowit district, Sibul, as well as in the Selangau district, Sarawak. This research is therefore, conducted by distributing the questionnaires to the students and interviewing the teachers. Classroom observation is also conducted to find out the effectiveness of the module used. Pre-test and post-test are also analyzed on the students' achievement, before and after using the module. Findings of the research showed that the Form 5C students' achievement has increased with a total average mark of 61.1 percent in the post-test as compared to 47.8 percent in the pre-test. There is also an increase of 10.1 percent in the fractions of the novel questions as compared to 7.4 percent in the pre-test. Students' achievement in Form 5A1 has also shown an increment of 44.7 percent in the post-test as compared to 45.1 percent in the pre-test. Marks for the novel section also rose from 6.6 percent in the pre-test to 10.3 percent in the post-test. The students' achievement in Form 5C1 has also shown an increment to 53.6 percent in the post-test as compared to 34.6 percent in the pre-test. Achievement from the novel section has also detected a rise of 10.5 percent as compared to 6.2 percent in the pre-test. It is therefore concluded that the TPACK module has been successful in increasing the students' interest to study the novel, hence boosting the students' achievement in the subject of Malay Language.

Keywords: Technological Pedagogical Content Knowledge (TPACK), Pengajaran dan Pembelajaran (PdP), Komponen Kesusasteraan Melayu (KOMSAS), Pembelajaran Abad ke-21(PAK-21)

Abstracts Session 2

The Relationship Model Among Usefulness Of Web 2.0 And Meta Knowledge Domain In The 21st Century Learning Framework

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This purpose of this study is to explore the relationship model among usefulness of Web 2.0 and meta knowledge domain in the 21st century learning framework. Web 2.0 is a tool of creating, collaborating, editing and sharing user-generated content online in order to support the 21st century learning. The meta knowledge domain comprise three elements namely, creative and innovative thinking, critical thinking and problem solving, and communication and collaboration skill. A set of questionnaires has been completed by 40 students in Teacher Education Institute (Institut Pendidikan Guru, IPG) Ipoh Campus. Data were processed using SmartPLS 3.0 and analysed using the Structural Equation Modeling-Partial Least Square (SEM-PLS) method. The results of data evaluation showed that the indicator Factor Loading > 0.5, the t-statistic ≥ 1.96 , the Cronbach Alpha ≥ 0.6 , and the Average Variance Extracted (AVE) value > 0.5. Therefore the results showed that the relationship model was reliable and substantially acceptable. The relationship model would be able to explain the usefulness of Web 2.0 as a significance factor that influenced the creative and innovative thinking, critical thinking and problem solving, and communication and collaboration skill. However the communication and collaboration skill is the only factor that influence the behavioural intention to use of Web 2.0. In short, the relationship model found in this study could explained the significance contribution of Web 2.0 towards the meta knowledge in the 21st century learning framework.

Keywords : 21st Century Learning; Meta Knowledge; SmartPLS; Web 2.0

Pendekatan Pembelajaran Reciprocal dalam Kalangan Murid Peribumi Bidayuh di Sarawak, Malaysia.

(Reciprocal Learning Approach for the Indigenous Bidayuh Pupils in Sarawak, Malaysia)

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This concept paper discusses the reciprocal learning approach of influencing education patterns among the indigenous Bidayuh pupils in Sarawak, Malaysia. Pupils' education process begins at birth and is formed by the experiences gained through their interaction with the environment and society around them. These experiences are form the existing of pupil's knowledge in the learning process through the social interaction, implementing cultural values, and beliefs. The main objective of this ongoing study is to explore the reciprocal learning among the indigenous Bidayuh pupils in the context of Malaysian classroom. This study is based on a combination of theoretical constructivism learning, meta-cognitive development, and cooperative learning. The design of qualitative research such as semi-structured interviews, observations and documents analysis was used to help researcher understand and explore the wider phenomenon of study. Thus,

based on this study, teaching and learning in the classroom is conventionally not have the effect of transforming the students when this process does not address the systemic issues of socialization of society. The conventional teaching and learning in the classroom have less effect of transforming pupils when this process does not address issues of systemic dissemination. Thus, through reciprocal learning approach that includes languages, customs, and beliefs capable of linking existing knowledge and mutual interaction of pupils with their learning environment. The process of adapting knowledge does not just happen in the classroom, learning occurs even indirectly outside the classroom in everyday life of the indigenous pupils. This phenomenon could assist teachers in improving the quality of teaching and learning, especially when dealing with groups of pupils in the indigenous community of collectivism in Malaysia.

Keywords : learning approach, reciprocal learning, and the indigenous Bidayah pupils

Imagitif : Memperkembangkan Pemikiran Kritikal Murid Tahap Satu Sekolah Rendah

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Tujuan kajian tindakan ini dijalankan untuk memperkembangkan pemikiran kritikal dalam kalangan murid tahun satu dengan menggunakan alat 'Imagitif'. Pemikiran kritikal perlu dikembangkan supaya pemikiran murid lebih terbuka dan dapat meningkatkan kemahiran penyelesaian masalah. Di samping itu juga perkembangan pemikiran kognitif, perkembangan bahasa dan sensori motor murid juga perlu dibina kerana kemahiran ini adalah saling berkaitan antara satu sama lain. Walaubagaimana pun pedagogi abad 21 yang menekankan perkembangan teknologi digital menyebabkan murid menjadi kurang berkomunikasi dan kurang berkemahiran di dalam penyelesaian masalah. Model *Cooperative Inquiry* digunakan sebagai asas kajian. Peserta kajian terdiri daripada sepuluh orang murid tahun satu di sebuah sekolah rendah di Besut, Terengganu. Kajian dijalankan secara pemerhatian berstruktur dengan menggunakan modul *Six Thinking Hats* Edward De Bono. Dapatan kajian menunjukkan bahawa peserta kajian dapat membina kemahiran berfikir dan berkebolehan dalam menerangkan sebab dan akibat dalam menyelesaikan masalah kehidupan harian mereka. Dapatan kajian ini memberikan implikasi bahawa proses pengajaran dan pembelajaran perlu memberikan penekanan kepada proses penerapan kemahiran berfikir dengan menggunakan alat yang mautud di samping penggunaan teknologi pada peringkat awal murid. Justeru itu perkara ini dapat meningkatkan penguasaan kemahiran kritikal dan meningkatkan kemahiran sensori motor murid secara keseluruhannya.

Abstracts Session 3

Meningkatkan Penguasaan Pelajar Dalam Konsep Fotosintesis Melalui Inkuiri Berstruktur (Enhance Student Mastering The Photosynthesis Concept By Structured Inquiry)

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This research was carried out to enhance student's understanding in mastering the photosynthesis concept by using the inquiry structured experiment. There were 16 students and 1 teacher who were involved in this research. The research was after the midyear exam when 65% students failed to answer questions related to photosynthesis. Based on students' feedback, 70% students got confused and were unable to remember the main concept. Using the Kurt Lewin Model, the study was divided into 2 Circles; Photosynthesis of Pondweed Experiment (Guided Inquiry) and Photosynthesis of Leaf Dishes Experiment (Structured Inquiry). Students did a report and explained their findings for both circles. A pre test was given after the first circle followed by a post test after the second circle. The post test showed a better result. This research shows students were able to master the photosynthesis concept through structured inquiry. This is because the focus is on problem solving rather than guided inquiry which focuses on the result of the experiment.

Keywords: Report, Describe, Mastering and Problem solving

Kaedah Token Kartun Dalam Mengubah Motivasi Pencapaian Murid (The Method Token Cartoons In Change Student's Achievement Motivation)

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The use of a token economy already a techniques in increasing the motivation of students since immemorial. However, there is no research on the use of a token economy in co-operative and applied the cartoon to impress students. Therefore, this project paper on the use of Token Cartoons in raising student's achievement motivation in the co-operative. This discussion is done based on previous studies of the use of the token economy and observations at the outset of a bevel on the subjects of English in a primary school in Bintulu. Generally, many students are Chinese or poor students who have existing knowledge a little in Malay language is difficult for them to achieve a satisfactory performance during the test. A method of data collection was done through observation, interview and structured document review partially to see changes in students' achievement motivation against the English. Four students selected in this study. Teaching and learning process carried out during 4 weeks of study under review. Data analyzed using analysing themes. The token economy system that uses cartoons sure to attract their interest to learn to obtain the token. The findings show the pupils work together in cooperatives to obtain the token economy. Therefore, the findings of this study are expected to assist educators in increasing motivation among primary school pupils.

Keywords: motivation, the token economy, cartoons, cooperative

Increase the Motivation Of Year Six Pupils With "S-T-D" Strategy

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This research was conducted to improve the motivation of pupils in learning in order to improve their academic achievement. The target group of this study focused on the 34 pupils of Public Primary Chinese School Year 6A who had attended the National Primary School Achievement Test (UPSR) in 2015. The focus of this action research was set to the subject of Malay Language. The initial review has been carried out through the review of homework students, classroom observation and term examination. Findings indicated that students are weak in academic performance, lack of interest in studying Malay Language which is not a native language of the pupils. The pupils relied on teacher and other sources to complete homework. Pupils tended to copy answers and memorize vocabulary. Pupils did not master the writing skills and felt ashamed to speak in Malay. Within the constraints of time, the class teacher has to plan effective strategies and establish a conclusive learning environment to enhance the motivation of the whole class with a method of "S-T-D". This strategy is learner-centered which integrated independent learning approach (self-learning), creative and critical thinking (thinking) and also expressing one's point of views (delivery of ideas). This method was carried out in individual, group and class dimension. Review of this action has produced excellent results and successfully increased the pupils' academic performance.

Keywords: pedagogy, teaching strategy, motivation, academic performance

Abstracts Session 4

An Integral ASIE Instructional Design Model for Teachers in The 21st Century: Strategies to generate thinking skills in teaching and learning environment

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The aim of The 21st Century Learning Framework is to develop learners' thinking, communication, and collaborating skills as well as enhancing their creativity (4Cs) towards establishing "globally competitive learners." Instructional planning is the key factor that has an impact in determining the effectiveness of the classroom learning & teaching practices. Thus, it is a challenge for teachers to design the instruction by the above requirements. The development of An Integral ASIE Instructional Design Model (Ismail Zain, Balakrishnan, M., 2014, 2016) an acronym for Analyze, Strategize, Implement, Evaluate, provides a solution to the above challenges as well as fulfilling the needs of the Malaysia Education Blueprint, 2013-2025. Teachers need to have a deeper understanding of the 21st Century learning features since those features integrated into the model served as a procedural flow in designing instruction. This "learner-centered approach" in designing instruction engage learners exploring and unleashing their potentials in generating and creating ideas through Higher Order Thinking Skills (HOTS) activities. The Model has a planning mechanism known as Multiple Integration Worksheet (MIW), assisting teachers to plan their instruction at a macro or micro level. It promotes the Professional Learning Community practices since the features able to engage educationist, state holders, parents, and corporates in education, ensuring its quality and addressing the future employability issues of the learners. The result from the pilot project shows that ASIE model has a positive impact on the instructional planning.

Keywords: Instructional design, instructional design model, 21st- century learning skills, ASIE Instructional design model, Higher Order Thinking Skills

Pemimpin Instruksional Dan Keberkesanan Sekolah Di Daerah Sibul (Instructional Leadership And Schools Effectiveness In Sibul)

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Pejabat Pendidikan Daerah Sibul

The study tries to investigate the pattern of principal's practices as instructional leaders in two types of Primary schools in Sibul, Sarawak. The practices as instructional leaders among principals was based on four dimensions, i) define and establish school goals, ii) manage instructional program, iii) promote learning environment and iv) create friendly and cooperative school environment. Interview data collected from eight principals and eight teachers was analyzed using SPSS 14. The findings show that the practices of instructional leadership occur in the two areas of schools in Sarawak. However, the dimensions of managing the instructional program being practiced rarely in rural schools. Findings of the study indicate a minimum difference in the principal's practice as instructional leader between town school and rural school

Keywords: Instructional leadership, Dimensions, Principal, Town school, Rural school

**Konsep Seni Op Dalam Pendidikan Prasekolah
(Op Art Concept in Preschool)**

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This study focuses on the development of teaching aids based on the concept of Op Art with constructivism style of Walter Gropius using visual illusion of form and function with motion analysis and rationalists. The aids adapted the revived popular illusion art concept of the 1960s to provide yet another alternative to the teaching and learning of colour and colour mixing activities among the preschoolers. Consistent with the integrated approach and constructivist learning theory, the aids, "Optical Colour Spinning Wheels" also applied the "minds-on and hands-on" and inquiry strategies in the formation of students' knowledge on primary, secondary and tertiary colours. The researcher conducted an action research with 15 preschoolers in IPG as participants to identify the weaknesses and strengths of the aids with the "Optical Colour" concept. From the participants' progressive record, a significant 30% increase in the knowledge of colours has been achieved. Findings from observations on participants' behavior and interview with preschool teacher provided valuable feedback towards the improvement of the "Optical Colour" concept as teaching aids in real classroom context. The "Optical Colour" concept has been proven to be effective for the enhancement of colours understanding in visual art activities. On top of this, it has undoubtedly increased participants' interest in learning as it enables learning to occur in a fun and meaningful way. Further explorations with these optical colour aids are very much encouraged in line with the National Preschool Standard Curriculum requirements.

Keywords: preschool, op art, colour, constructivism

Abstracts Session 5

Teknik SPICY Q dalam penyoalan KBAT

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Malaysian Education Development Plan, which started in 2013 aims to produce competitive talent globally. Hence, the emphasis on 21st century skills such as higher-order thinking and reasoning ability to solve problems is a priority in the education system. This led to an emphasis on pedagogy and elements of higher order thinking skills in the classroom. Teachers need to master the technique of questioning higher order thinking skills in order to guide and sharpen students' higher order thinking skills. Therefore, techniques SPICY Q produced to help teachers devise questioning the students. Although teachers still use questioning techniques based on the taxonomy of Bloom and Anderson but combined with SPICY Q technique will further strengthen high-level questioning to students. SPICY Q questioning techniques emphasize different sides in forming questions and enter a different lateral elements to guide students to broaden their thinking. SPICY Q questioning techniques also put the students into the main character and give their views on the problem in question. A series of presentations to teachers in order to help teachers use questioning techniques SPICY Q shows teachers the ability to form different questions and generate questions SPICY Q.

Keywords: SPICY Q, lateral thinking, different sides in forming questions, higher order thinking, the taxonomy of Bloom

KBAT DALAM PENTAKSIRAN MATEMATIK TAHUN 6 (HoTS in Year 6 Mathematics Assessment)

Ong Ewe Gnoh (PhD)

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Jemaah Nazir & Jaminan Kualiti, Miri.

Malaysian Education Development Plan (PPPM) 2013-2025 targets higher order thinking skills (HoTS) as one of its pupils' aspiration. This is in line with the Ministry of Education's effort to increase pupils' achievement so that Malaysia will be able amongst the top one third in international assessment by 2025. This study was conducted to track how HoTS in Mathematics amongst the Year 6 pupils who also represent the first cohort of pupils in KSSM and three years after PPPM has been launched. Coincidentally this is a critical time whereby the Second Wave of PPPM has started. Hence, this study is done to investigate the answers of Year 6 pupils who have taken the Common Mathematics Examination in July 2016 under the District Education Office of Miri. Samples were taken from two schools. The results delved in the HoTS problems and the possibilities of pupils' thinking in solving the HoTS questions. Some suggestions hoped to give some feedbacks to teachers specifically in the teaching and learning process, training, use of education aids and assessment which could be considered and adapted to the needs and capacity of the pupils.

Amalan pedagogi abad ke 21 di Sekolah Menengah Hajjah Laila Taib dalam usaha meningkatkan kemahiran berfikir aras tinggi pelajar

Judah Binti Ahmad¹, Hajjah Binti Mohtar², Tiwi Binti Kamidin³

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This research action on the implementation of 21st century pedagogy in SMK Hajjah Laila Taib to enhance higher-order thinking among students in Form 4 (A, B and C) in accordance with the wishes of the State to produce students with higher order thinking skills. This is because the higher order thinking skills is one of the 21st century skills to be mastered by the student in preparation for an increasingly challenging world. Implementation of the 21st century pedagogy that emphasizes the four C element implemented under the supervision of Senior Leader Team (SLT) and Middle Leaders (ML) and data Learning Walk (LW) is collected every week. LW data collection aims at sharing to identify the strengths and weaknesses that teacher's do during teaching and learning to assist teachers in the suppression element 4C. The implementation of data collection LW apparently succeeded in changing pedagogical pedagogy towards the 21st century, particularly in implementing elements 4 C in the pdp respectively. As a result, it was found effective in a very good development ability of higher-order thinking in students when the ideas and suggestions of the problems transferred into the rubric of higher-order thinking.

Keywords: higher order thinking, senior leader team, middle leaders, learning walk

Using informal education strategies to develop higher order thinking in science classrooms

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The Chemistry Outreach program at the University of Otago has been running for nine years. It involves the delivery of hands on, open ended activities to school pupils, with the aim of increasing their engagement with science. The focus of the program is 10-12 years old student, an age group identified around the world as the age at which students disengage with science as a subject. However, the program works extensively with other age groups as well. The program has several long-term collaborations with rural and low decile schools in NZ, allowing the development of strong relationships between the schools and the outreach team. This extended partnership model between the University and the schools allows benefits to both sides; the development of basic knowledge and skills in younger school pupils and allowing the older ones the chance to explore experiments and develop higher order thinking skills; University students developing in areas described as 'graduate attributes' in the OU Teaching and Learning plan. One result is a more positive attitude in 12 year old students than reported by the New Zealand National Education Monitoring Project. Recently the program was invited to take part in a pilot scheme in Sarawak through IPG Batu Lintang, working with schools in the Kuching region and at SMK Balleh. Initial impressions and implications from this trip will be discussed.

Exploring A Repertoire Of Teaching And Learning Activities In The 21 Century Classrooms

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The necessity for improved teaching and learning strategies used by school teachers to enable students to acquire 21 century skills and competencies has dominated educational discourses. Although studies on 21 century skills and competencies were widely conducted, not many explore the activities used by teachers in today's classroom. Hence, this study aimed to examine the usage of a list of teaching and learning activities used by school teachers in the 21 century classroom. This quantitative study was conducted with 28 school teachers who attended a 21 century innovation day held in one of the teaching institutions in Sarawak. Data was gathered through a self-designed questionnaire and quantitatively analyzed. The data reviewed that among the teaching-learning activities used by school teachers, i-think maps top the list. The next frequently used activity was self-report presentation followed by think fare share, role play, round table, poem declamation/singing, three strays, one stay and gallery walk. The last in the list was hot seat. It is enlightening to know that teachers surveyed are keeping themselves updated and informed about current education trends and trying their best to fit their teaching styles to help students acquire 21 century skills and competencies.

Komunikasi Kepemimpinan Berprestasi Tinggi dan Hubungannya dengan Dogma

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Pengurusan dan pentadbiran sekolah bersinergi dengan aspek kepemimpinan. Perkembangan dan pembangunan sekolah biasa ke martabat sekolah berprestasi tinggi berupaya dijana ke destini Kementerian Pelajaran jika kepemimpinan sekolah melaksanakan pengurusan dan pentadbiran sebagai satu mekanisme saling melengkapi dalam segitiga kerangka kepemimpinan berprestasi tinggi. Sehubungan itu, kertas kerja ini bertujuan meninjau dan menganalisis elemen-elemen dalam fundamental komunikasi kepemimpinan berprestasi tinggi sebagai salah satu instrumen signifikan ke arah membicarakan sekolah sebagai institusi pendidikan global. Penemuan kajian mendapati teori dan amalan komunikasi berdasarkan pendekatan gelagat organisasi *nisbi* menjadi gema dan dentuman retorik yang tidak berakarumbi dalam denyut nafas budaya sekolah. Respirasi komitmen guru kelihatan kecungapan dalam taufan iklim sekolah berorientasikan indeks pencapaian sumatif. Prinsip ritmanologi dogma dalam model komunikasi kepemimpinan sekolah menekankan penyebatian 6K2P(V8+NV3) sebagai proses dan progress H1A1S ke arah P2P1 yang berpotensi menerajui keberhasilan kepemimpinan berprestasi tinggi dalam persekitaran dalaman sekolah. Jujuk-jujuk persekitaran dalaman sekolah apabila bercantum dalam kelangsungan H1A1S menjadi permulaan baik mengangkasakan pemikiran dogmatik pengetua dan guru besar sekolah. Penemuan *comparative analysis* menunjukkan pemikiran dogmatik mempunyai hubungan dengan pencapaian sekolah agama dalam peperiksaan awam. Ini

merupakan pra-rujukan norma keberhasilan komunikasi kepemimpinan. Oleh itu dicadangkan model ritmanologi dogma 6K2P(V8+NV3):H1A1S/P2P1 dintergrasikan dalam modul kursus pengurusan dan pentadbiran pengetua serta gurubesar baru.

Penggunaan Buku Dan Kanak-Kanak Prasekolah Bersama Rakan Sebaya

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Focus of this study is to gain information about the practice of books to preschool children in the perspective of peers. Hence this book explains how to practice their response to the book and reading. It is a socio-cultural framework that considers the book as a material culture. How to use the book and read-compatible in a class. Therefore, the review of the book and read the pre-school children in the context of peers to be done. The study is one of the private kindergartens are located in Selangor. The response consists of children of a preschool classroom. A total of 16 children of all races. The selected research approach is qualitative approach. The research design used in this study using the case study. Data collection interviews conducted on six children, four teachers, six parents and a principle. The findings of the study, showed that research participants can develop social skills and prepare them for learning in primary schools. Next to instill within the child the nature of reading skills by reading the disclosure to relate to, identify a book when they touch and see it off on their own desire for no other purpose. ". The findings may help educators to provide the initiative for the world child reading. Teachers can learn from how children see reading as one of the creative, imaginative, dynamic and meaningful if the classroom environment is structured in a conducive environment. In accordance with their abilities (DAP). Its impact will have a positive impact on books and reading.

Key words: Practice of books, Socio-cultural framework, Read-compatible, World child reading, Dynamic and meaningful

Abstracts Session 6

Penguasaan Algoritma Bahagi Dalam Kalangan Murid Tahun 4 Menggunakan Kaedah “Lampu Isyarat” (Mastery of Division Algorithm Among Year 4 Student by Using The Method “Lampu Isyarat”)

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This study aims to identify the proficiency of division algorithm using a method namely “Lampu Isyarat”. 8 pupils are chosen to be the sample according to their performance in the diagnostic test. There are two important steps in the implementation of this action research which is the method of teaching sessions of “Lampu Isyarat” and exercise using worksheet. Observation and interview were used to assess the improvement in pupils’ proficiency in the algorithm of division. While the pre-test, post-test and worksheets were used to assess the level of pupils’ achievement. The finding shows that the pupils’ achievement in division is increase as the division algorithm is increase by using the method “Lampu Isyarat”. Pupils achievement in pre-test was lower than in the post-test. The mean of pupils’ achievement in pre-test increase from 3.25% to 98.50% in the post-test. Overall, the difference between pre-test and post-test is high which is 95.25%. For further study, the implementation of ICT application could be use in order to develop pupils’ potential and their proficiency level.

Keywords: division algorithm, level of proficiency, method of “Lampu Isyarat”, mathematics

Pengetahuan Asas, Keupayaan Dan Kemahiran Penyelesaian Masalah Pecahan Dalam Kalangan Murid Tahun 5 (Basic Knowledge, Abilities And Skill Of Problem Solving In Fraction Among Year 5 Pupils)

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The direction of national education has been drafted by Ministry of Education which lead to the goal of making education in Malaysia as the world class education. Thus, the basic for the development of knowledge should be established starting from primary school. The strategies, approaches and methods of teaching and learning should be strengthened all over the subject including mathematics. This study aims to identify the level of basic knowledge, abilities and problem solving skills among Year 5 pupils. This study also identify whether there is a correlation between basic knowledge and the abilities in problem solving and also the skills in problem solving based on gender. The sample consists of 150 Year 5 pupils in the district of Niah, Sarawak. Three instruments were used, namely Basic Knowledge Test, Problem Solving Test and questionnaire about the skills in problem solving. Data were analyzed using SPSS. This study found that the basic knowledge of fractions is at the satisfactory level. However, pupils have not achieved the minimum level for the problem solving ability. There is a strong correlation between the basic knowledge and

problem solving ability ($r=0.736$, $n=150$, $p<0.05$). Whereas the problem solving skills are at the low level. The result shows there is a significant difference in the level of problem solving skills based on gender ($t=-2.902$; $p<0.05$). The level of problem solving skills for girls (mean=2.503) is higher than male (mean=2.310). Thus, this study suggests that the basic knowledge should be strengthened among pupils through a variety of strategies. The basic knowledge can enhance pupils' ability in problem solving.

Keywords: basic knowledge, abilities and skills in problem solving, fraction

Language Use and Attitude among Chinese Adolescents in Miri

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Language use or choice is usually an issue in multi ethnic and multilingual countries such as Malaysia. Most Malaysians can speak more than one language. They are able to choose a suitable language which is appropriate with the interlocutor, topic or location. This study aims to explore the languages used by Chinese adolescents in Miri in various domains. The study also aims to survey the attitude of Chinese adolescents in Miri towards the other languages which they speak such as Mandarin, English, Malay as well as their ethnic languages. In addition, this study aims to detect factors that encourage these language users to select a particular language for a specific purpose in a particular domain. Questionnaire and interview methods were used in this study to obtain data and a total of 100 Chinese adolescents in Miri were chosen as participants. The findings of the study showed that the Chinese adolescents in Miri gave priority to Mandarin within the family, friendship and neighborhood domains, while English in the government office and social media domains. The attitude towards the use of Malay language was negative compared with the use of other languages. The participants perceived and judged the English language as the highest and most positive compared to the other languages.

Keywords: Language use, language attitude, Chinese adolescents, multilingual, Miri

Teaching English literature in Malaysia in the 21st century: Issues and Challenges

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This paper aims at addressing contemporary issues and identifying problems faced by selected Malaysian students when learning English literature or literature in English – both at school and university levels. What are the problems they face, what hampers them from performing in the subject and what are the 21st century approaches needed to ensure that they enjoy learning and in return, this would help them grow as well-informed, sensitive cultural and moral beings. The paper which is qualitative in nature will also critically study Blooms's taxonomy on his high order thinking skills (HOTS) and will argue that Bloom's taxonomy is not sufficient and inadequate to measure Malaysian students' performance since they are being measured by criteria which may be western-centric, undermining students' cultural intelligence in addition to their creative, affective and

psychomotor domains. The paper will perhaps raise more questions than answers for educators teaching English literature in the 21st century. The paper is qualitative in nature and data will be based on class observations, interviews with teachers and students as well as highlighting some case studies of other countries in which English is taught as a second language e.g Singapore, Brunei and Pakistan.

Keywords: teaching English literature – Malaysian schools – Bloom’s taxonomy – critical thinking skill

3-Trick Method: Get It Right, Start To Write!

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This action research was conducted to help Year 3 pupils at a primary school in Miri, Sarawak to write meaningful and correct sentences in logical sequence to ultimately produce a coherent text. This research was based on Kemmis and McTaggart Model. Nine respondents were selected based on participant observation and their performance during Monthly Test 1 for English Paper 2. This study focused on the use of the “3-Trick Method” technique in improving the teaching and learning process to improve Year 3 pupils’ writing achievement. Respondents’ writing achievement was measured using participant observations, unstructured interviews and document analysis. The findings of this action research indicated that using the technique, the respondents were able to expand words and phrases into sentences correctly and ultimately write coherent texts. In the future, the method can also be implemented to guide Year 3 pupils to develop their creative writing skills for longer composition. The technique can also be extended to develop Speaking skills among Year 3 pupils.

Keywords: meaningful sentences, logical sequence, coherent text

Tahap Penguasaan KBAT Bagi Pemahaman Petikan Jenis Cerpen Bahasa Tamil Dalam Kalangan Pelajar PISMP (Level Of Mastery Among PISMP Trainee Teachers In Answering HOTS Tamil Language Short Stories Questions)

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The purpose of this study is to investigate the level of HOTS mastery among PISMP trainee teachers in answering two Tamil language short story comprehension questions based on the Malaysia context. The two short stories are suggested as a the main texts in Ringkasan Maklumat Kursus (RMK), for Critical Appreciation in the Tamil Literature course by IPGM. Research sample consist of 16 trainee teachers in semester 8 majoring in Tamil Studies in IPG Kampus Sultan Abdul Halim, Sungai Petani. It is a quantitative study. Research samples were selected based on intact group. Research instruments consist of HOTS comprehension questions built based on Revised, Bloom Taxonomy, 2001 and the four points Likert scale questionnaire. The short story comprehension questions were built based on four levels which are application,

analysis, assessment and creativity. The findings of study were analysed using SPSS software (Statistical Package For Social Science) version 21. The research findings show that, the trainee teachers were able to answer application and analysis questions very well compared with assessment and creativity questions. This is supported by findings from questionnaire shows that the trainee teacher are unable to answer two levels of HOTS that is evaluation and creativity especially aspects of problem solving and generating new ideas, according to contextual situations. Overall, the awareness of HOTS are high among PISMP trainee teachers in answering HOTS application and analysis comprehension questions whereas for analysis and evaluation they are at moderate levels.

Keywords : PISMP, mastery, HOTS, short story, Tamil language

Impak Bimbingan SISC+ Dalam Meningkatkan Aplikasi KBAT Untuk Aspek Seni Bahasa Bahasa Melayu Tahun 5

(The Impact of SISC + Guidance in Improving the Application of Higher Order Thinking Skills (HOTS) for the Bahasa Melayu Language Arts Aspect For Year 5)

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The implementation of the Higher Order Thinking Skills (HOTS) in the teaching and learning (T&L) is an important feature of the 21st Century Learning (PAK 21). However, the implementation of HOTS in the T&L by teachers is still not effective because teachers lack skills to carry out the HOTS in T&L. This qualitative action research aims to improve the skills of teachers to carry out the HOTS in the teaching and learning aspects of language arts and students' skills particularly in answering the HOTS questions. A total of 25 students and a teacher were involved in the study. The initial review was done through observation, interviews and analysis of student training and pre-test scores. The finding of the survey showed that students were incompetence in answering the HOTS questions and teachers failed to apply the HOTS elements in the T&L. The instruments used to collect the data are the pre-test, post-test, observations and semi-structured interviews. The study found that after three consecutive guidance by the SISC + officer, the teachers' skills in the implementation of the HOTS in T&L has achieved Level 3 in each element in the SISC + Officer's Rubric. Meanwhile, students' post test scores also increased. Teachers have also used four thinking tools such as questions and questioning, thinking maps, mind maps and graphics management in T&L. The implications of this study found that teachers should be given a lot of exposure through courses, workshops, training and implementation of the Professional Learning Community (PLC) so that the HOTS application can be implemented to students.

Keywords: Higher Order Thinking Skills (HOTS), Teaching and Learning (T & L), Aspects of Language Arts, Guidance SISC +, Bahasa Melayu (BM)

Abstracts Session 7

Kesediaan Dan Keperluan Pelajar Dalam Pembangunan M-Kandungan Secara Aplikasi Mudah Alih Bagi Elemen Pentaksiran Kemahiran Berfikir Aras Tinggi (M-Kbat)

(Readiness And Needs Students In Development M-Content For Mobile Application For The Elements Of Assessment Higher Order Thinking Skills (M-KBAT)

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This study aims to develop mobile content (m-content) for mobile applications (mobile app) for elements of higher order thinking skills assessment strategies based Blended Learning in Teacher Training Institute. Development and advancement of mobile technology today has provided an opportunity for educators to improve the education system in line with the Malaysian Education Blueprint (2013-2025) which outlines eleven shift in transforming the national education system and shift to 7 is 'Leverage ICT to Scale up Quality Learning Across Malaysia'. Advances in technology based smartphone platform Android, iOS, Windows Phone and Blackberry OS has made this communication tool to the needs of students in higher education. Mobile application development is seen growing from time to time and do not miss even in the field of education. Therefore, a study was conducted to see the readiness and needs of students at the Teacher Training Institute in the development of m-content in the mobile application for assessment element of higher order thinking skills. The selection of the sample using purposive sampling and analysis performed using descriptive statistics and qualitative analysis. Based on these findings, it is used in the design of mobile application development assessment element higher order thinking skills (m-KBAT) more systematically.

Keywords: Mobile Content (m-content), Mobile Application, Higher Order Thinking Skills, Blended Learning Strategy, Assessment Elements

Meningkatkan Kemahiran Dalam Pecahan Bentuk Termudah Dan Pecahan Setara Melalui Kaedah Petak Sifir 5 x 5

(Improve Simplest Form Fractions And Equivalent Fractions Skills Through Times Table 5 x 5 Method)

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Simplest form fractions and equivalent fractions are two of the mathematical skills learned in level 1 of primary school. Pupils need to master both of these skills to facilitate the learning of addition and subtraction of fractions in level 2. During the practicum in school district of Miri, I found that there are still some Year 4 pupils who have not mastered both of these skills. Therefore, this action research conducted purposely to help Year 4 pupils master the skills of simplest form fractions and equivalent fraction using Times Table 5 x 5 method. Implementation of reaseach is based on Model Kemmis and Taggart by involving nine repondents. Three methods of data collection were used, namely document

analysis, observations and interviews. This research found out that the change in the usual teaching approach by using Times Table 5 × 5 method could improve the mastery and confidence of respondents in simplest form fractions and equivalent fractions skills. Further research is suggested by modifying Times Table 5 × 5 method in order to improve the effectiveness of the method in both skills.

Keywords: Times Table 5 × 5 method, simplest form fractions skill, equivalent fractions skill, Year 4 pupils

Penggunaan Kaedah Kotak Rumah Dalam Penolakan Nombor Dua Digit Dan Satu Digit (The Usage Of 'Kotak Rumah' Method In Subtraction Two Digit And A Single Digit Numbers)

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Subtraction is one of the basic mathematical skills that are very important to master pupils at the primary school level. This study aims to help students who are struggling in the subtraction of two-digit and a single digit numbers. Therefore, a new method named 'kotak rumah' had been introduced in order to help pupils increase and master in subtract skills of two-digit and a single-digit for Year One pupils. Four pupils have been selected as the participants from a school in the Saratok. The early review through the observation of teaching and documents that have been carried out before the introduction of the 'kotak rumah'. 8 sessions of intervention kaedah 'kotak rumah' run for a ½ hour. The instrument used was an exercise question and also the interview questions. Descriptive statistics used were frequency distribution, percentage and mean score exercise. While the interview data were transcribed and themes identified through the encoding process. The findings showed there was a remarkable improvement in mean score and percent. Therefore, this study can help pupils to solve problems involving subtraction of two-digit and a single digit number for the year one pupils allowing them to generate ideas towards mental calculations to solve the subtraction problem easily. The implications were discussed.

Keywords: subtract skills, year one pupils, subtraction, two digit number, single number

Penggunaan Modul Ticking Clock Meningkatkan Kecekapan Fakta Asas Matematik Bagi Operasi Tambah Dan Tolak (Ticking Clock Module To Improve Efficiency Of Basic Facts For Mathematical Operations Addition And Subtraction)

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This study aims to identify the module of Ticking Clock in improving the efficiency of basic math facts for addition and subtraction operations and pupil's view of it. This study has involved five participants from year 3 pupils at a school in Kuala Lumpur. In this study, the instruments used, Ticking Clock consists of 46 sets of

questions involving basic addition and subtraction facts and score sheet to evaluate the efficiency of the participants. The observation and interviews were implemented to assess the improvement made by the participants in solving the basic facts of addition and subtraction. Data were analysed using the Statistical Package for Social Science (SPSS). The findings show that the use of the module of Ticking Clock effective in improving the efficiency of basic math facts for addition and subtraction operations. In addition, the participants' interest in mathematics were increased after using the Ticking Clock module. This study can be extended by using multiplication and division operations to complete all four basic operations in mathematics.

Keywords: basic facts, addition, subtraction, efficiency, Ticking Clock module

Elemen Multimedia Interaktif Dalam Penguasaan Kemahiran Belajar

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The purpose of this research was to discuss on the usage of interactive multimedia learning Arabic language. Analysis on the perception of the students on the usage of software with multimedia intergration in mastering the study skill were done based on this research focus objective. The methodology of this research was in the forms of qualitative and quantitative. Interviews and observations were used to collect data from informants concerning information on the learning processes of Arabic language whereas surveys were done to look into the students' perception on usage of interactive multimedia in mastering study skill. Researcher has done interviews with nineteen (19) Form Four students whom were directly involved in the teaching and learning processes of Arabic language at Sekolah Menengah Kebangsaan Agama in Sarawak. Student's perception towards the effectiveness of the usage of multimedia software in mastering study skill were stated through various component such as revision process, implementation of learning process, learning environment and students interest. Outcomes of the research showed that the usage of multimedia software played a vital role in teaching and learning Arabic Language. This was because it stimulated the students' domain cognitive to retain and remember for longer period the message of the teaching. Besides that, it simplified the process of revision and implementation of learning process. Research outcome also showed learning environment looked easy and enjoyable besides gaining interest and student's focus. it gave strengthening impact in motivating mental processes and activating students' senses and thought in the classroom especially for those students with low knowledge and skill levels. Multimedia also acted in energizing students' affective domain because the delivery of the message took place in conducive and meaningful environment.

Keywords: interactive multimedia, study skill, cognitive domain, affective domain

Teachers Understanding Of Higher-order thinking (HOT) In Mathematics Instruction And How It Affects Students Learning Process

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The paper is based on our 42 years experience in conducting problem solving seminars and workshops for students and teachers in Malaysian schools . 21st Century Learning has been the main focus of the policy makers at the Ministry of Education and the schools were given the responsibility on its implementation .Unfortunately through our observation and research on HOT in mathematics , we do not see much impact on the cognitive ability of our Malaysian students based on their understanding of problem solving and its application in the process of mathematical learning ..Students were found to be lacking in their ability to do analysis , to reflect , to evaluate their own thinking , to plan their thinking strategies , and to organize their mathematical knowledge .Results of several pretests given to students prior to the problems solving seminars conducted in schools clearly shows that students were not made thinking visible to them by their teachers .Students were observed in the way they approached the problem especially those that need to apply problem solving skills and to our surprise almost all of them could not apply HOT skills Several students were interviewed on how their teachers taught them mathematics .Their explanation were recorded .Our study then was narrowed down to a school in Putrajaya A two –day course and workshops were also conducted for a group of primary school mathematics teachers who taught year four to year six pupils . A pretest was given before the course to assess their pedagogical knowledge. The results indicates clearly how teachers poor understanding of HOT and 21st Century Learning affects their students understanding of HOT and problem solving . Suggestion on how to elevate the teachers pedagogical knowledge will be discussed.

Keywords: 21st Century Learning ,Higher-order thinking(HOT) ,problem solving, visible thinking, reflect , evaluate and pedagogical knowledge

Faktor Yang Mempengaruhi Penggunaan Alat Web 2.0 Dalam Pelaksanaan Kurikulum Program Berasaskan Pembelajaran Abad Ke-21 Di Institut Pendidikan Guru

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This study was conducted to determine the factors that affect the use of web 2.0 tools in promoting 21st century learning among the students of the Teacher Education Institute (IPG). The web 2.0 tools used in this study are Piratepad.net, Blendspace, Edmodo, and Socrative. A total of 300 students of Bachelor degree teaching program (PISMP) were involved in this study. Students acceptance level was studied based on behaviour intention (BI), perceived ease of use (PE), perceived usefulness (PU), and attitudes (A) of use of the web 2.0 tools. This study used analysis Structural Equation Modeling (SEM). The results showed that the perceived ease of use (PE) affect significantly on the perceived usefulness (PU) and attitudes (A) of these tools. In addition, the attitudes (A) also

have a significant impact on students behaviour intention (BI) to web 2.0 tools. The findings showed that the perceived ease of use (PE) affects a significant (CR >1.96, p <.05) to the perceived usefulness (PU) and attitudes (A) on the acceptance of these tools. In addition, the attitude (A) also have a significant impact on the behaviour intention (BI) to use tools of web 2.0 tools. All of these effects are in the range of standardized regression weights from 0.682 to 0.853. Therefore, to ensure the success of 21st century learning among the students, perceived ease of use should be increase in order to influence the attitudes toward the acceptance of web 2.0 tools.

Keywords: Web 2.0 tools; Technology Acceptance Model; 21st Century Learning; Acceptance, Structural Equation Modeling

Abstracts Session 8

Conceptions Of Scientific Evidence In Chemical Science Scenario Tasks Among Trainees In A Teacher Education Institute In Kuching

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The main aim of study was to describe science teacher trainees' understanding of scientific evidence regarding measurement reliability and design validity. A quantitative methodology utilizing two unsound hypothetical experimental scenarios, designed utilizing the effects of concentration on the rate of reaction and of temperature on the rate of solubility from chemical science topics of "Rate of Reaction" and "Solubility" was employed in this study. The population consisted of 39 science trainees from a teacher education institute in Kuching. The results revealed that 20 (51.28%), 33 (84.62%), 15(38.46%), 4(10.26%) and 26(66.67%) of the respondents had the right conceptions on repeats, variance, treatment of anomalous result, fair test and external validity aspect respectively over both scenarios. These findings on science teacher trainees' conceptions of scientific evidence can provide diagnostic information to aid teacher trainers in focusing their teaching on specific areas of procedural knowledge in which trainees had misconceptions or difficulties in understanding.

Keywords : Scientific evidence, Science teacher trainee

Penggunaan "LeSiMa" Dalam Penguasaan Pendaraban Melibatkan Nombor Dua Digit Bagi Murid Tahun 5 (Use Of "LeSiMa" In Mastering Multiplication Involving Two Digit Number For Year 5 Pupils)

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Primary School Standard Curriculum (KSSR) is the current curriculum implemented for all subjects in primary schools. Mathematics in KSSR curriculum sets Number and Operations field as the first field of study. The properties of numbers and basic operations are the basic knowledge in Mathematics. Therefore, pupils should master the basic operations as well as possible to ensure smooth upcoming learning process. Through the teaching experience in primary schools, there were still Year 5 pupils facing constraints in solving multiplication of any numbers with a two-digit-number. Therefore, this action research was carried out to help Year 5 pupils in mastering the skill of multiplying any numbers with two-digit-number, with the product of multiplication up to 1 000 000 using "LeSiMa". "LeSiMa" is a learning aid (BBB) designed to help the pupils in identifying the place value of the product calculated, by covering the irrelevant digits temporarily until the calculation for the digits multiplied was done. Model Kurt Lewin is the base in planning this action research. Respondents of this research consist of seven Year 5 pupils from a school in Miri, Sarawak, identified through pupils' performance on the exercise given. Data is collected through document analysis, observations and interviews. Research findings showed that the use of "LeSiMa" helps the respondents in mastering the skill of multiplying any numbers with two-digit-number, with the product of multiplication up to 1 000 000.

Respondents also indicated positive perception of the use of “LeSiMa”. Next, “LeSiMa” is proposed to be used on the skill of deduction involving regrouping.

Keywords: “LeSiMa”, multiplication involving two-digit-number, common form, Year 5 pupils

Pendekatan Pembelajaran Bentuk Dan Spatial Geometri Matematik Dalam Kalangan Pelajar Sekolah Menengah Rendah Harian Dapatan Satu Kajian Rintis

(Pilot Study Findings On Geometry Shapes And Spatial Learning Pratices In Mathematics Among Secondary School Pupils)

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A pilot study was purposely conducted to identify weaknesses and analyze the findings of learning Mathematics at a secondary school, Malaysian Ministry of Education. The focus of the research was to evaluate geometry shapes and spatial learning practices that are often related to a student’s cognitive development process. This is one of the elements of the instrument item assessment by TIMSS and PISA. The researcher used Theory van Hiele by Pieri and Dina van Hiele-Geldof which synthesized learning geometry (LG) as a "high level of thinking", instructional design, on the other hand, was based on the Model ASSURE (Heinich, Molenda, Russell and Smaldino. Next, the researchers focused on the problems and learning practices that may contribute to a probability of understanding of students during the teaching and learning process. A survey design was used to obtain research data through interviews, observations and document analysis as a supporting data. The respondents were 26 students in Form 2 in a day secondary school, the data is administered using NVivo 8 software. The findings indicated there were a problem to diversify teaching aids, to foster creativity and innovate the teaching and learning (T&L) because of the level of achievement is not consistent as recommended by Theory van Hiele. Some factors need to be taken such as the use of teaching aids, learning strategy and stimulus as well as the teacher’s creativity during the delivery process which can be improved.

Keywords: geometry, shapes and spatial geometry, learning practices, Form 2

Membantu Murid Tahun Empat Menguasai Topik Pecahan Dengan Kaedah Model Luas

(Helping Year 4 Pupils With Area Model To Master Fractions Topic)

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This action research was conducted to help Year 4 pupils to improve their mastery skill for the addition and subtraction of different denominator proper fraction. This action research uses the Stephen Kemmis action research model. Three respondents were selected based on the result of worksheet among Year 4 pupils at a school in Miri City. This study focuses on the use of Area Model in the addition and subtraction of different denominator proper fraction to improve

teaching and learning process. Respondents' achievement is measured by using document analysis, observations and interview. Documents were analyzed based on the number of correct answers in the worksheets. Observations were recorded based on check list by respondents' responses while completing their worksheets. Interviews were recorded and analyzed with the coding. The findings have shown that the approach is able increased respondents' mastery skill for the addition and subtraction of different denominator proper fraction. In addition, respondents' confidence in answering fractions questions also be fostered.

Keywords: Area Model, addition of fraction, subtraction of fraction, Year 4 pupils

“A-Mz” Method In Learning Physical Quantity

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Physical quantity is one title that involves skill prefixes to normal conversion or otherwise with the answers written in standard form. Standard form also is an important skill not only in mathematics, even the subjects of physics, science, engineering Mathematics, Applied Science and Applied Mathematics. But observed in conventional methods prefixes to normal conversion (multiplication) and normal to prefixes conversion (division) lead the students are always confused. I acted continue my investigation with title "A-Mz". "A-Mz" method in learning physical quantity. "A-Mz" does not involve complicated steps, step 1-state A, step 2- mark index. By using the "A-Mz" students not only can understand the concept of physical quantities, then they can apply the this method in other subjects.

Keywords: physical kuantity, unit conversion, prefixes, normal number, standard form

Kualiti Pengajaran Matematik Dalam Kalanganguru Pelatih Institut Pendidikan Guru Kampus Sarawak, Miri.

(The Quality Of Mathematics Teaching Among The Trainee Teachers Of Institute Of Teacher Education Sarawak Campus, Miri)

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This study was conducted to examine the relationships between the mathematics teaching styles, cumulated grade point average (CGPA), teaching preparation skills, teaching implementation skills, and practicum achievement with the quality of mathematics teaching. The subjects of study comprise of the group of 24 trainee teachers major in mathematics from the Institute of Teacher Education Sarawak Campus those have done their practicum for phase one, two and three. This survey study using the set of questionare consists of five sections. Section A is about demography of the subjects. All the items in section B, C, D and E are using five points of Likert scales. Section B consists of 60 items of mathematics teaching styles. Section C comprises of 12 items about mathematics teaching quality. Section D consists of 28 items of daily teaching preparation skills. Section E with 31 items of teaching implementation skills. The questionnaire was filled up by the practicum supervisor lecturer of each trainee teacher. The data analysis

was conducted using SPSS software which involving Pearson correlation and multiple regression test. The results show that there are significant positive linear relationships between the mathematics teaching styles, skills of teaching preparation, skills of teaching implementation, and practicum achievement with the quality of mathematics teaching. There is no significant relationships between CGPA with the quality of mathematics teaching. The results also show that only the skills of teaching preparation influencing the quality of mathematics teaching significantly. All these results were discussed by the researcher in details.

Keywords: quality of mathematics teaching, mathematics teaching styles, teaching preparation, teaching implementation, practicum achievement.

Mastercap

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Primary School Standard Curriculum emphasizes on the chance and learning experience which involves students actively in the learning of Mathematics. The efficiency of teaching and learning (TnL) practices depends on processing techniques and the use of teaching aids which can motivate and help students in forming understanding of Mathematics concept. Normally school always practices traditional method to teach addition and subtraction and ask students to memorize multiplication table. As a result, students were facing problems in solving addition and subtraction questions and yet they were unable to understand the concept of multiplication table. MasterCap is a teaching aid which may help students to reinforce Mathematics concept visually and concretely. Moreover, it may enhance students' interest in the learning of Mathematics. Students may learn and practice to handle Mathematics concept by using MasterCap in classroom. The combination of three action researches had been conducted to know the changes of practice in TnL by using MasterCap towards reinforcement and interest of addition and subtraction skills and multiplication tables 4, 6, 7 and 8 among the students. Action researches were implemented by using Kurt Lewin or Stephen Kemmis action research model as guidelines. Students were selected from Chinese Primary School within Miri, Sarawak area as the respondents in these studies according to their works in diagnostic test. The ways to collect data which use in conduct the studies are observations, worksheet achievement and interview transcription. Data of document analysis was collected from worksheet sets and analyzed according to the number of questions answered correctly. Observation data was collected by using checklist according to respondents' reaction and analyzed by calculating the frequency of "Yes" to the reaction. Data of interview transcription was collected by using interview form based on feedback from respondents and analyzed in transcription. The findings have shown that the changes of TnL practice are able to improve achievements and reinforce the students' interests toward the three Mathematics skills by using MasterCap.

Keywords: MasterCap, addition, subtraction, concept of multiplication table, teaching aid

Abstracts Session 9

Kepentingan Pelaksanaan Kurikulum Pendidikan Kesehatan Dan Seksualiti Di Sekolah Rendah Pendidikan Khas Di Malaysia (The Importance Of The Implementation Of The Sexuality And Health Education Curriculum In The Special Education Primary Schools In Malaysia)

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This article discusses the importance of the implementation of the Sexuality and Health Education curriculum for the Special Education in the Primary Schools (Learning Disabilities Students in the Integration Program) in Malaysia. In Malaysia, to this day, there has not been a specific subject of Sexuality and Health Education for students with learning disabilities such as the students who studied in the premier schools. Sexuality education components are only implemented as an integration in other subjects in the schools, and relying on the teaching and learning method of teachers who teach the subject. There are six advantages of Sexuality and Health Education curriculum should be considered to be implemented; the needs to prevent and tackle social problems, as a measure to avoid and prevent infectious HIV and AIDS diseases, to prevent the negative attitudes and sexual behavior among the LD students, as a preventive of the informal sources of the Health and Sexuality Education gained by the students, as a protection and prevention of incapable child of the sexual abuse and violence and the importance of the equal rights to the unable child to acquire the knowledge, experience, and skills in sexuality and health in life.

Keywords: Sexuality, Equal Rights, Sexual-Ableism, Ghetto, Groping

Teachers' Belief Of A Good Teacher

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A small scale investigation was carried out, interviewing three teachers as the source for examining teacher's belief of the qualities of a good teacher. Semi-structured interviews conducted were based on a set of pre-determined questions, mostly open-ended questions because these type of questions would invite a variety of responses, and not limit the amount of information the participants could give. These probing questions are necessary to seek reasons, clarification, or even detailed explanations for certain responses as mentioned by participants. Using the model of effective teachers by Azer (2005), there was a total of twelve main themes. However, only four main themes were highlighted by all three respondents while other themes mentioned during the interview but not by all the respondents. The limitation of this study is that the bias may be introduced during the interview as they were based solely on the respondents' personal experience and knowledge. This was minimized by triangulation with observation which included visit to their work place and audio-recording of the interviews. Based on this study, the most prevailing qualities of a good teacher for all the respondents includes commitment to work, interactions and respectful communication, life-long learning positive attitude especially to improve teaching

skills as well as providing positive feedback to the students. Other qualities mentioned by the respondents, but not all, were encouraging appreciation of diversity, motivating students, encouraging an open and trusting learning environment, fostering critical thinking and also encourages creative work. Finally, the data gathered from this research should be extended to more educators with the intention of making more good teachers to educate the young generations to become global, world-class learners.

Key Words: teacher's belief, qualities, good teacher

Meningkatkan Domain Kognitif Dan Domain Psikomotor Murid Berkeperluan Khas (MBK) Melalui Pendekatan Teater Bagi Membangunkan Pengajaran Dan Pembelajaran (PdP) Yang Inovatif

(Improving The Domain Cognitive And Psychomotor Pupils With Special Needs Through Theatre For Developing Innovative Teaching And Learning)

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Appropriate and effective teaching approaches need to be explored and understood by teachers involved in the teaching and learning of Pupils with Special Needs for all planning and implementation of teaching and learning can be achieved. The study was conducted on Inclusive Special Education Classes at the SK Tungku Ampuan Azizah, Kuantan, Pahang, which use Theatrical Approaches Manual for Pupils with Special Needs. Data were collected through observation, interviews, private and official documents have been analyzed according to the procedures recommended for Grounded Theory Study. The results showed there was correspondence between the conceptual ideas put forward by the events that took place in the learning process. Study participants had increased self-confidence and active while interacting with teachers. Moreover, Pupils with Special Needs also can memorize text drama and act out some scenes and prove that there was an increase of cognitive and psychomotor domain. In conclusion the theatrical approaches was working as an alternative in teaching and learning in developed self potential among Pupils with Special Needs.

Keywords: Pupils with Special Needs, theatrical approach, innovative teaching and learning

Sekolah: Ke Arah Mewujudkan Kepimpinan Dan Pengurusan Yang Berkesan

(Schools: Towards The Effective Managing And Administration)

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The effective of school management demands the managing concept and the capable administration. In actualizing the systematic organization, the team of administrative should have the power of administration so that they could manage the people that they are managing so that it would give an impact neither positive nor negative for both parties. The development of quality human capital rely on quality of education; that can produce an individual that has an attitude of true to self, good attitude, knowledgeable and skillfull to fulfill the country needs.

Education also needs to build up the human capital that are creative, critical minded, skillfull in problem solving, willing to create a new opportunity, and ready to face the challenging world. Even education demands the children to have strength as an individual and society could achieve the security and the happiness. John Dewey (1964), says that education is an innovation process and experience where it could happen in a social intercourse or within adults and the youngsters. This process involves a supervision and development of people with their surrounding. Edgar Dale (1946), explains that education is an effort that had been done by family, society and administrator with a guidance, instruction and practice through a process of life long learning to prepare the students so that they would be able to play their roles in every scope of life consistently.

Key words: Administration, Human capital and Education

Penggunaan Response To Intervention (RTI) Dalam Penyelesaian Masalah Matematikberayat Bagi Murid Berpencapaian Rendah Di Sekolah Rendah

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This study reviewed several mathematical word problem solving strategies of Year 2 children (8 years old), especially children who are underachieving and at risk of failure. The objective of this case study is to describe the factors that cause them not mastering the skills to solve mathematical word problems, how they solve mathematical problems and the reasons why they were not able to master the mathematical word problem solving skills. The initial test contains 10 questions mathematical word given to all children in Year 2. The solutions used were 6M strategy, which are reading text, understanding verses, ignoring irrelevant text if any, determining operation, entering numbers and recording results. The strategy is implemented through the program model Response-to-Intervention (RTI). The researcher conducted 17 sessions of modified intervention of Mathematical Model of Strategic Series. In each intervention session, all participants completed a 10-question mathematical word. Errors made by participants in each intervention is classified according to the Classification of Empirical Model Nitsa Movshovitz-Hadar which consists of either type of error using numbers, errors interpreting language, couples make it right number, error in concept of place value and value of digits, unfinished/ incomplete solutions or technical mistake. The results of each intervention are as follows: Errors using the number was detected one a 100 times. Interpreting error detected 107 times, the fewest number of error detected was of pairing numbers, which was a total of 12 times, error in concept of place value and value of digit was 22 times. Error of not verified solutions and technical errors were detected respectively 16 times. Assistance /cooperation given by the school was very good. The researcher finds that interventions have influenced the mastery and performance of participants in solving mathematical word problems.

Keywords: underachieving, risk of failure, mathematical word problem, Response-to-Intervention(RTI).

**Kesan Pembelajaran Kaedah Jari Terhadap Ketepatan Dan Kepantasan
Mengira Matematik Murid Tahun Satu
(The Impact Of "Finger Arithmetic" Learning On Accuracy And Speed Of
Computation Among Year One Pupils"**

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The purpose of this study is to identify the impact of "Finger Arithmetic" learning on accuracy and speed of computation among Year One pupils. The study focuses on accuracy and speed of the addition and subtraction operations. The study involved 6 Year One pupils from a primary school in Saratok, Sarawak. The participants were selected purposely. Through this study, the participants were given 10 intervention sessions of 30 minutes each. The quantitative data were collected through pre and post test. The qualitative data were obtained from the interviews that have been conducted. Descriptive statistics was used to analyse the data from pre and post test. Meanwhile, the data from interviews were transcribed and themes were identified through the encoding process. The findings indicate that the overall participants can calculate more accurately after learning "Finger Arithmetic". This study also found that participants were capable of counting twice as fast than before, after learning "Finger Arithmetic". Overall, this finding showed that "Finger Arithmetic" was an effective method that could be used in order to help pupils building fluency in mathematics.

Keywords: Accuracy, Speed, Addition, Subtraction, Finger Arithmetic

**Mengingat Otot-Otot Badan Melalui Kaedah 'Colour It Right'
(Memorization Of Body Muscles Through 'Colour It Right')**

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This study was conducted to address the issues faced by Form 1 students in memorising the types of body muscles accurately for the subject of Health and Physical Education (PE). This study involved 25 Form one students and one teacher of SMK Oya, Sarawak. Survey and preliminary observations had been conducted earlier on the students' results in their school-based assessment (PBS) and Midterm 1 Exam 2016. Through the observation, it was found out that the students were having difficulty in answering the questions pertaining to human muscular system. These problems exist because the students have difficulty remembering names of the muscles. Hence, 'Colour it Right' was employed to enhance the students' mastery of the topic. The intervention was conducted in classroom for six weeks. It was conducted once a week every session lasting 70 minutes. The students' interest was enhanced and they had fun doing the 'Colour it Right' activities. Post results showed improvement in student's performance. The students were able to answer all questions correctly and quickly. Overall, this action research improves the quality of teaching practice and thus enhances students' mastery of the name of body muscles.

Keywords: Physical Education, body muscles, Colour it Right

Abstracts Session 10

Pembangunan Modul *IBSE* KSSR Dalam Meningkatkan Pelaksanaan KBAT Di Dalam Bilik Darjah (Development Of *IBSE* KSSR Module To Enhance Implementation Of Hots In Classrooms)

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Inquiry Based Science Education (*IBSE*) Standard Curriculum for Primary Schools (*KSSR*) Module under *KEMASAINS* programme was developed to enhance the implementation of Higher Order Thinking Skills (*HOTS*) among teachers in schools. *HOTS* suggested by Revised Taxonomy Bloom and Malaysia Ministry of Education which including apply, analyse, evaluate and create was integrated through *IBSE* *KSSR* Module. The module was developed based on the five phases of *ADDIE* (Analysis, Design, Development, Implementation, Evaluation). During the analysis phase, need analysis was carried out to identify the implementation problems of *HOTS* in teaching and learning. Need analysis via unstructured observation and unstructured interview towards a group of science students of Graduating Teacher Programme (*PPG*) during the supervision of practicum by the lecturers' showed that teachers still less practicing inquiry based learning and inculcating *HOTS* in the science classroom. Therefore, *IBSE* *KSSR* Module was designed to enhance implementation of *HOTS* among teachers first before they can help students' to master *HOTS*. During the design phase, 18 science teachers from 11 schools around Miri City, Sarawak and 5 lecturers from Teachers' Training Institute of Sarawak Campus were involved in the workshop of *IBSE* *KSSR* Module development. Formative evaluation carried out throughout the whole process of module's development, which the participants tried out the designed *IBSE* activities and revised it based on the lecturers' and other participants' feedbacks. *IBSE* activities also had been tried out in the 6 participating schools. Summative evaluation is carried out during the editing of the revised module to be implemented in the real teaching and learning process.

Keywords: *IBSE* *KSSR* Module, *HOTS*, *KEMASAINS*, *ADDIE* Instructional Design

Impak Pelaksanaan Kbat Melalui Bengkel Pembangunan Modul *IBSE* KSSR *KEMASAINS*

(Impact Of Hots Implementation Via Workshop Of *KEMASAINS* *IBSE* KSSR Module Development)

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Workshop Of *IBSE* *KSSR* Module Development was carried out under *KEMASAINS* programme from 2014 to 2016. Survey study was conducted towards 21 participants of the workshop. Questionnaires that consisted of 40

items were used to find out the participants' perception towards the implementation of HOTS before and after the workshop. Three main aspects of impact studied were participants' knowledge on HOTS, implementation skills of HOTS in teaching and learning, and teaching and learning practices that related to HOTS. Independent T-test with 0.05 significant level showed that there were significant pre test and post test mean differences for participants' knowledge on HOTS [$t(40)=-6.920, p=0.00$], implementation skills of HOTS in teaching and learning [$t(40)= -5.927, p=0.00$], and teaching and learning practices that related to HOTS [$t(40)-6.575, p=0.00$]. This findings implied that development of IBSE KSSR Module gave positive impact on the implementation of HOTS in teaching and learning process.

Keywords: IBSE KSSR Module, HOTS, KEMASAINS

Kemahiran Pemikiran Kritikal Dalam Pendidikan Guru

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Kemahiran berfikir aras tinggi merupakan salah satu perkara penting dalam pendidikan masa kini. Kemahiran pemikiran kritikal adalah sebahagian daripada kemahiran berfikir dalam membantu seseorang menyelesaikan sesuatu masalah secara efektif. Penggunaan cara pengajaran dan pembelajaran yang berkesan dapat membantu mengasah kemahiran berfikir dalam kalangan siswa pendidik. Kertas ini akan membincangkan cara yang berkesan untuk mengajar dan menilai kemahiran pemikiran kritikal dalam kalangan pendidikan guru. Kertas ini juga akan membincangkan hasil pendekatan yang digunakan oleh pengkaji untuk menerapkan pemikiran kritikal dalam kalangan siswa pendidik menggunakan pendekatan berbentuk kajian kes yang melibatkan 20 orang sampel. Dapatan kajian menunjukkan pendekatan pengajaran yang bersesuaian dapat membantu membina pemikiran kritikal dalam kalangan siswa pendidik.

Kata Kunci: Kemahiran berfikir aras tinggi, kemahiran pemikiran kritikal, kemahiran kritis, penilaian kemahiran pemikiran kritikal.

Abstracts Session 11

Permasalahan Membaca Dalam Kalangan Murid Pemulihan Tahun Enam: Satu Kajian Kes

(Readings Problem Among Year Six Devolution Class: A Case Study)

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This case study is observing the problem of readings among year six devolution class who's not being able to mastering their Bahasa Melayu. The purpose of this research is to identify the reason involves among the students from rural area even though they went to school for almost 6 years. PPPM reported, from 2013-2025, 27,093 students represents 1% from 2.7 million students enroll to primary schools in Malaysia are still not capable to read. Through the Programme of International Student Assessments (PISA) from Organizations for Economic Co-operation Development (OECD), Malaysia whose are rank at 55 place out of 74 country involves, are not achieving the ability to read even though at minimum stage. Focuses are given to the domain of readiness of study and the influences of the students' background. This research used a qualitative method. The data collection is based on primary and secondary data. 5 students of year six from Kuala Selangor area has been chosen as a respondent. They have been chosen based on the diagnostic test of reading. Interviews are the method used and the data had been analyzed using the Atlas programme. Research finds that the students are not capable to mastering their readings because of their lowest preparations of study. They also have a passive attitude, low self-esteem and lazy to endeavor their weaknesses in the readings problem. They also have a low motivation and not interested to learn until it makes the problems remains. The level of family socio economy, the parents' lowest education background and the surroundings environment also involves as the main problems. The attitude of keep relying on schools and rely to the parents makes the important of reading are always neglected. This study is hope to helps the teachers to identified the level of readiness of learning among the students and to reorganized the teaching learning strategy in the class so that they could plan a way of good teaching to produce a high quality of product.

Keywords: teaching and learning pattern, excellent, trait, Malay Language Excellent Teachers

The Use Of English Songs To Improve Speaking Skill Among Rural Pupils In Baram, Sarawak

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Poor of English command in rural primary schools in Sarawak is not something new as English has been treated as a foreign language, albeit the fact that English has been officially selected as the second language in Malaysia. In most of rural areas schools in Sarawak, mother tongue is being used as a mode of communication, alongside with Bahasa Malaysia. Hence, the pupils have practically very limited opportunity to use English in their daily communication as

their peers are also facing the same predicament. Therefore, this study is dedicated to explore the use of songs as a way to provide the pupils the opportunity to practice their speaking skill in a comfortable atmosphere and put a stop to the habitual teaching and learning to speak English in the classroom. This paper begins by looking at how songs can improve rural pupils' speaking skill and how teachers inculcate songs in English lessons. Also, this paper will explore the suitable type of songs for speaking practice. In particular, it will discuss the improvements on rural pupils' speaking skill after using songs in the classroom. This qualitative research used Classroom Action Research (CAR) in conducting the observation. The findings of this research proved that song is an invaluable tool to improve speaking skill among rural pupils' in Baram, Sarawak.

Keywords: English songs, speaking skill, rural school, teaching strategy, language learning strategy

The Preferred Second Language Learning Strategies of Good Language Learners in Rural Schools

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The education system in Malaysia is currently undergoing a transformation for the betterment, outlined by the Malaysia Education Blueprint (2013- 2025). The second shift of the blueprint emphasises on ensuring every child to be proficient in the national language and English language and also to be encouraged to learn an additional language. Hence, the training of language learning strategies among the pupils are important to be manipulated and facilitate themselves to master a second language or any additional language. However, the current teaching and learning practises very limited techniques or strategies to be encouraged among the pupils in language learning. In order to overcome the challenges, a study has been conducted in SK Long Teru, aimed to investigate the individual best-working strategies in a second language learning, facilitated by teachers. A survey has been conducted among 30 respondents, investigating the preferred strategies that facilitate them in improving almost every aspect of the language skills (with/ without them realising). The findings and discussion will be further elaborated in the paper.

Abstracts Session 12

Keberkesanan Model Bar Dalam Penyelesaian Masalah Matematik Berayat Murid Tahun Lima (The Efficiency Of Bar Model In Year Five Mathematical Problem Solving)

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This study was carried out to identify the effectiveness of Bar Model in mathematical problem solving involving the percentage topic. This study used action research design and the participants consisted of 9 pupils of SK Bukit Papit. The participants were chosen through observations, interviews, diagnostic tests, questions drills and pre-test. The study found that the participants were having difficulties in translating the mathematical sentences and they could not solve the problem solving questions. An action plan was created to help improving the skills of pupils in answering questions involving problem solving in percentage topic. The study participants were given one month's intervention during eight sessions. Post-Exam data collected and analyzed quantitatively. Overall, these findings indicate a positive increase in terms of marks and pupils can easily apply a model for answering questions involving problem solving in percentage topic.

Keywords: Problem Solving, Bar Model, Percentage

Penguasaan Fakta Asas Tolak Murid Lemah Tahun 4 Menggunakan Kaedah Kepala Jari (Mastering The Basic Facts Of Subtraction Among Low Proficiency Year 4 Pupils Through 'Head Finger Arithmetic')

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This study is an action research to identify the effects of utilising the Head Fingers Arithmetic in increasing the basic facts of subtraction. Three respondents were identified based on diagnostic tests. All the respondents scored at the weak level in the diagnostic tests. Intervention activities were carried out in this study which focused on strengthening the concept of regrouping in prior to Head Fingers Arithmetic were introduced. Three types of instruments were used in this study, namely the pre-test and post-test, worksheet, and observation. The results showed that all respondents had post-test scores which were significantly higher than in the pre-test scores. Observations showed that all the respondents were exercising the Head Fingers Arithmetic in answering the worksheets and post-test questions. Respondents were also able to implement the process of regrouping correctly and they were no longer drawing small lines while subtracting. This research clearly shows that the utilisation of the Arithmetic can improve the basic facts of subtraction among the respondents. A suggestion for future research is to apply mental arithmetic for subtraction in order to reduce the reliance of students on the utilisation of manipulative materials.

Keywords: basic facts of subtraction, regrouping concepts, head fingers arithmetic.

**Model Perbandingan: Menjawab Soalan Penaakulan Perkadaran
(Comparison Model: Answering Proportional Reasoning Question)**

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The curriculum of primary school Mathematics in Malaysia, especially Mathematics for Level II, has undergone a change since 2011. Several new topics have been added to the Standard Curriculum and Assessment Document (DSKP) Level II for the Primary School Standard Curriculum (KSSR). The basic concept of topics such as Coordinates, Ratio and Proportions and Probability which are learned by Form 2 and Form 4 students respectively in secondary school, are now first introduced to primary school students in Level II. Through teaching experience and discussions with teachers at the school, most primary school teachers are found less susceptible to teaching techniques and experience problems during planning and teaching the new topic Ratios and Proportions. This action research was conducted to assist Years 5 students to answer proportional reasoning question, including the Higher Order Thinking Skills (HOTS) questions of ratio 1:1 to 1:10 by using comparison model. Comparison model is one of the models in the Bar which is famous and practiced in Singapore schools. This research was carried out according to Stephen Kemmis action research model. The respondents comprised of seven students from a school in Miri, Sarawak. Data collected by using observation, document analysis and interviews. The findings indicate changes practice using comparison model do help respondents in answering proportional reasoning questions and increase their interest and confidence.

Keywords: comparison model, proportional reasoning question

Abstracts Session 13

“U Jump I Jump” :Improving Ikm Kuching Students Problem Solving Skill In Technical Mathematics Classroom Using Cooperative Learning Approach

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This study reports on the pedagogical changes that I experienced as a teacher engaged in an action research project in which I designed and implemented a cooperative learning approach to my teaching. There had been a great emphasis of the use of cooperative learning in problem solving mathematics classroom yet there was little evidence that such a change of approach was occurring. In my role as teacher-as-researcher I sought to implement a new pedagogical approach, in the form of Cooperative Learning, and bring about a positive change in Technical Mathematics classroom. I conducted the action research on two programs which were Automotive Technology Certificate (19 students) and Electrical Industry and Domestic Technology Certificate (19 students). Data collection included a pre-post-test, a reflective journal, post-teaching reflective analysis and student's questionnaires. The data was analysed quantitatively and qualitatively. The findings of the research were cooperative learning improved students' achievement and brought positive attitudes in students. The study suggested that Cooperative Learning will allow me to place social and academic learning to enhance students' understanding mathematics and interpersonal development of the students. Moreover, it will help to build my strong character in my role as a facilitator in the classroom.

Keywords: Action research, Cooperative Learning, Technical Mathematics, Problem solving skill

Penguasaan Pecahan Setara Dan Pecahan Bentuk Termudah Melalui Lakaran Jalur Pecahan (Mastering Equivalent Fraction And The Simplest Fraction With Sketched Fraction Strips)

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Equivalent fractions and the simplest fractions are the important skills that have to be mastered in topic Fraction. Failure of students to master both of these skills will affect students to study operations and problem solving about fractions. However, most of the teachers and students in primary schools assume that these two skills are difficult to master well by the students. This action research was conducted to help Year 4 students to improve their mastery skill and interest in equivalent fractions and the simplest fraction by using sketched fraction strips. Fraction strips is one of the materials that is famous to be used for teaching topic Fraction and practiced in the whole country, especially in Singapore. This action research is carried out for two cycles by using the Stephen Kemmis Research Model. Six students were selected from a school in Subis, Sarawak. Respondents' achievement is measured by using three technics, including document analysis, observation and interview. The results showed that the use of sketched fraction strips and can improve the teaching practice by helping

respondents to enhance their mastery skill in equivalent fractions and the simplest fraction. Collected data also showed that the sketched fraction strips can increase the interest in equivalent fractions and fraction in the simplest form.

Keywords: sketched fraction strips, equivalent fraction, the simplest fraction

Meningkatkan Kemahiran Murid Tahun 2 Menganalisis Khasiat Makanan Menggunakan Peta Pokok 2.0

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Analytical skills is one of the element in higher order thinking skills which is essential to develop the classification skill which is also a component in the science process skills. This study aims to help Year two students develop skills in analysing food and then classify it based on their nutrient value. Two student from year two was selected as the subject of this study, The subject were selected using purposive sampling technique. Intervention which is named 'Peta pokok 2.0' has been used to help student to analyze the characteristic of food then classify the foods based on their nutrient value. Data were collected using a written document which is pretest and posttest, students worksheets, field notes and interview. All the instruments were analyzed descriptively. Intervention phase was conducted three times and the data showed that peta pokok 2.0 can help students develop skills in analysing food and then classify it based on their nutrient value The findings prove that the two subjects have mastered the basic skills of analyzing the data collected and then classify the foods to its proper nourishment. However, constraints still exist because when the materials is in physical form which is not practical. Therefore, the proposed future research, the peta pokok 2.0 can be changed into a form of multimedia stimuli to diversify and increase student scientific process skill.

Key words: Analytical skills, classification skill, food nutrient

Abstracts Session 14

Keberkesanan Pelaksanaan Aktiviti Kokurikulum Dalam Pembentukan Kemahiran Kepimpinan (Effective Implementation Of Co-Curricular Activities In The Formation Of Leadership Skill)

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Having a basic degree nowadays is not sufficient to ensure a bright future for one's career, whereas an excellent leadership skill has become the fundamental quality of life and holistic human development. In this challenging era of globalization, the implementation of co-curriculum plays an important role in enhancing students with all the necessary knowledge and skills to be on par with challenges in this era of globalization. This is indeed the intention of Malaysia's Ministry of Education and thereupon various measures have been taken to fulfill it. This concept paper will briefly explain the evolution of Malaysia's co-curriculum since the early 1960s and the effectiveness of co-curricular activities in forming students' leadership skills. In addition, the importance of leadership from different dimensions, such as unemployment and employability of graduates will also be thoroughly discussed through this concept paper. Furthermore, this concept paper will be reviewing the matters stated above in detail by stating the establishment of leadership skills that have been successfully nurtured through the co-curricular activities. This discussion will also demonstrate some of the efforts made by Malaysia's Ministry of Education among students through the co-curricular activities.

Keywords: Extra-curricular activities, leadership skill

Konsep Pemikiran Komputasional Dalam Pendidikan Awal Robotik Sekolah Rendah: Sebuah Ulasan (The Concept Of Computational Thinking In Early Childhood Robotic Education For Primary School : A Review)

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Robotics in education has become more common in the community whereas attract more attention into the field, especially researchers to explore this area in greater depth. Educational robotics often associated with computer science subject through computational thinking module has been emphasized by the ministry of education recently and was introduced formally, integrated in the primary school curriculum. Nevertheless, some issues may still be a debate between researchers and policymakers whenever there are multiple hardware platforms and robotic programming software that can be used and applied in computational module. There are also side issues arise, particularly the question of the basis for the further implementation of teachers in terms of ease and cost of implementation of the module in the curriculum. Therefore, this review paper will explore more about the existing robotics curriculum that has been adopted by

other countries, software programming involved, and robotics set that have been applied in computational thinking of learning modules.

Keywords: Robotics in education , computational thinking

**Transformasi Pengajaran, Kesiediaan Dan Kepemimpinan Guru Terhadap
Penglibatan Pembelajaran Sekolah Menengah Luar Bandar Sabah
(Transformation Of Teaching, Teacher Readiness And Leadership
Engagement Of Secondary School Student Learning Rural Sabah)**

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The focus of the study on the effect of transforming teaching, leadership and willingness of teachers to student learning engagement of rural schools in Sabah. Quantitative study uses a total of 370 secondary school teachers who teach outside the city throughout the District Education Office (PPD) Sabah randomly selected. Data collected by questionnaire Likert five scale was analyzed using SPSS. The descriptive analysis using frequency, (ANOVA) one way, Mean Scores, post-hoc Tukey HSD, Pearson Correlation and Stepwise Multiple Regression, test hypotheses on the significant level of $p < .05$. The results showed no significant differences on demographic variables to elements of the study. The mean difference is significant with post-hoc analysis of the test Tukey HSD for the age and length of service significantly with the study variables. The findings of the analysis of Pearson correlation (r) showed a significant positive relationship for all three variables together elements in the test. While to test the effect of the predictor variables of the study variables using Stepwise Multiple Regression analysis showed that the beta (β) construction transforming teaching [$\beta = .910$, $t(370) = 42.137$, $p = .001$]. While forecasters construction readiness [$\beta = -.085$, $t(370) = -1.985$, $p = .048$]. For construction predictor of leadership [$\beta = .190$, $t(2.746) = 42.137$, $p = .001$]. Thus, the study found that teachers still had little influence on student learning engagement. Learning outcomes more on academic performance but less focus on how the engagement process of learning is significant influence student achievement.

Keywords: Transformation of teaching, teacher preparedness and leadership, engagement and learning

Abstracts Session 15

Menjana Kemahiran Berfikir Aras Tinggi Menerusi Model Flipped Classroom: Peluang Dan Cabaran Pelaksanaan Pembelajaran Berasaskan Projek(PBL) Dalam Kalangan Murid Prasekolah Abad Ke-21 (Generate High Order Thinking Skills Through Flipped Classroom Model: Opportunities And Challenges Implementation Of Project-Based Learning (PBL) Among 21st Century Students In Preschool)

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Transformation in basic education through the Malaysia Education Blueprint (2013-2025) is established to realize the success of students with high quality and integrity. The implementation of High Order Thinking Skills (HOTS) elements seeks to improve the development level of the children thought to strengthen the preschool education as an important element in the 21st Century Learning. It provides an opportunity to develop their potential in reasoning, communicating ideas and trying out practicability in solving problems. The concept study is to discuss the opportunities and challenges of the implementation High Order Thinking Skills (HOTS) process through Project Based Learning (PBL) among preschoolers via pedagogical Flipped Classroom model. Self-efficacy, competent teachers can generate the teaching and learning environment significantly and meaningfully. Implementation of collaborative elements consistently using the appropriate thinking tools such as i-Think in this pedagogy can stabilize the potential of the preschoolers' soft skills. Disclosure of acceptance, availability of exploration and expansionary element of this holistic flipped classroom can strengthen the High Order Thinking Skills (HOTS) among preschoolers of the 21st century.

Keywords : Flipped Classroom, , High Order Thinking Skills (HOTS), i-Think, 21st Century Learning, Project Based Learning (PBL)

Keberkesanan Modul BIO-STEM Dalam Pemupukan Kemahiran Abad Ke-21 (Effectiveness of BIO-STEM Module In Promoting 21st Century Skills)

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Bio-STEM (*Biological Science, Technology, Engineering, and Mathematics*) Module was developed to promote 21st Century Skills (21CS) via Nutrition topic. This module integrated objectivist-constructivist learning theory, Morisson, Ross, Kalman dan Kemp (MRKK) instructional design Model, STEM (*Science, Technology, Engineering, Mathematics*) interdisciplinary approach, and STEM teaching and learning (T&L) strategies. Bio-STEM Module was tested with quasi-experimental with non-equivalent control group pretest/posttest design on 70 students from two rural secondary schools at Miri, Sarawak. The control group was taught with traditional T&L methods, whereas the treatment group was taught with

Bio-STEM Module. Malaysia-21CS Instrument used to test 21CS. Repeated measures MANOVA analysis showed that there was no main effect of group towards overall 21CS, but there was main effect of group towards spiritual and moral values. Besides that, interaction effect between time of measurement and group was found on digital literacy skills. Main effect of time of measurement were found on inventif skills and high produktiviti skills. Further analysis with paired T-test found that treatment group showed significance mean score increment between pretest and posttest for both inventive skills and high productivity skills. However, paired T-test showed no significant difference of two groups in mean score of digital literacy skills and spiritual and moral values. Research findings implied that Bio-STEM Module can promote rural students', especially in inventive skills and high productivity skills.

Keywords: 21st Century Skills, Bio-STEM Module

Efikasi Kendiri Guru Mengaplikasi Elemen Kemahiran Berfikir Aras Tinggi (KBAT) Menerusi Proses Pengajaran dan Pembelajaran Sains Awal dalam Kalangan Murid-Murid Prasekolah

(Applying the Elements of Self Efficacy Teachers of High Order Thinking Skills (HOTS) through the process of teaching and learning in Early Science among the Preschool Students)

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21st Century Learning aims to produce students who are skilled in the use of information, communication technologies and also able to communicate effectively and possess superb thinking skills. In order to realize the pupils' aspiration in the Malaysia Education Blueprint 2013-2025, the teaching and learning process should be adjusted to create the scientific community, progressive, science literate and highly competitive globally. Early Science education is a challenge and the wise use of common sense in building structures in the teaching and learning process will definitely give a broader understanding. The process of transformation in the 21st Century Learning requires self-efficacy of teachers to master various teaching and learning pedagogical strategies which may challenge the students. Creative, innovative and highly competent teacher will master the effective learning pedagogy by applying Project Based Learning (PBL). This approach can stimulate creative thinking, innovation and flexibility through the exploration of the environment. Competent teachers can master the subject, skilled with the latest pedagogy, understand the development and psychology of learning, adept at using technology and constantly reflect on teaching to generate the success of teaching and learning qualities. The study includes the semi-structured interviews, document analysis of secondary source journals, theses, books and proceedings. Diversification Openness approaches; techniques and teaching methods could attract and maintain students' interest in challenging, conducive and fruitful learning environment. Thus, it will give a great impact of the higher-order cognitive dimension in Bloom's Taxonomy holistically,

particularly in the context of teaching and learning Early Science among preschool students.

Keywords: High Order Thinking Skills(HOTS), Early Science Teaching and Learning, Project Based Learning(PBL), High Cognitive Levels of Bloom's Taxonomy

Kesediaan Pelajar Program Ambilan Khas Penan Di IPG Kampus Sarawak Mengaplikasikan Kemahiran Berfikir Aras Tinggi

Magdeline Anak Nor (Ph.D), Ling Snelus Anak Angking, Lany Bala Aching

Kementerian Pendidikan Malaysia telah mengadakan satu ambilan khas untuk pelajar kaum Penan sebagai guru pelatih di Institut Pendidikan Guru Kampus Sarawak mulai Jun 2014. Setakat ini terdapat tiga kumpulan Ambilan Khas Pelajar Penan, iaitu Ambilan Jun 2014 (10 orang), Ambilan Jun 2015 (15 orang) dan Ambilan Jun 2016 (15 orang). Pelajar yang memohon melalui saluran biasa memerlukan sekurang-kurangnya mendapat 5A berbanding dengan pelajar ambilan khas ini hanya memerlukan minimum enam kredit sahaja dalam SPM. Namun begitu, adalah menjadi hasrat Kementerian Pendidikan Malaysia untuk melahirkan guru kaum Penan yang setanding dengan guru-guru yang memohon melalui saluran biasa. Selaras dengan pendidikan abad ke-21, Kemahiran Berfikir Aras Tinggi (KBAT) amat dititik beratkan dalam pengajaran dan pembelajaran. Oleh itu, kajian ini adalah untuk meninjau kesediaan pelajar Program Ambilan Khas Penan di IPG Kampus Sarawak mengaplikasikan Kemahiran Berfikir Aras Tinggi (KBAT) dalam pengajaran dan pembelajaran. Kertas konsep ini merupakan kajian kuantitatif, justeru itu pengumpulan data akan dilakukan menggunakan borang soal selidik. Semua pelajar Ambilan Khas Penan seramai 40 orang akan menjadi resoponden kajian ini. Data pula akan dianalisis menggunakan perisian SPSS 22 untuk menjawab soalan kajian yang dibina.

Amalan Pedagogi Abad Ke-21 Dalam Kalangan Pelajar Pismp

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Empat kemahiran yang menjadi fokus utama dalam pedagogi abad ke-21 yang merangkumi pemikiran kritis, komunikasi, kolaborasi dan kreativiti (4C) sangat penting diterapkan secara bersepadu dalam pengajaran dan pembelajaran di sekolah. Sehubungan dengan itu juga, semua warga pendidik perlu menguasai dan mengamalkan amalan pedagogi abad ke-21 bagi melahirkan murid yang berkualiti yang dapat memenuhi aspirasi negara. Kajian ini bertujuan untuk mengenalpasti tahap amalan pedagogi abad ke-21 dengan memberi fokus kepada 4C dalam kalangan pelajar Program Ijazah Sarjana Muda Perguruan (PISMP) ketika menjalankan latihan Praktikum selama tiga bulan di sekolah. Kertas kerja ini menggunakan pendekatan kuantitatif dengan mengaplikasikan reka bentuk tinjauan deskriptif dan inferensi. Penyelidikan ini menjadikan instrumen soal selidik sebagai alat kajian utama untuk memperoleh data. Sampel kajian terdiri daripada 123 orang pelajar PISMP Semester 8 Institut Pendidikan Guru di Kampus Temenggong Ibrahim, Johor Bahru. Dapatkan kajian kuantitatif dianalisis

menggunakan perisian SPSS version 20.0. Dapatan kajian menunjukkan tahap amalan pedagogi abad ke-21 secara keseluruhannya berada pada tahap sederhana. Terdapat perbezaan yang signifikan pada tahap amalan pedagogi berdasarkan jantina dan opsyen. Akhirnya kertas kerjaini dapat mengenal pasti amalan terbaik guru pelatih dalam pedagogi abad ke-21.

Kata kunci: Amalan Pedagogi Abad ke-21 (4C), pelajar PISMP, Praktikum

Communicative Language Teaching Method And Teacher Leadership Enhancing English Language In School-Based Assessment

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This study attempts to investigate teacher method of teaching and their attitude towards Communicative Language Teaching as well as their role as a leader in the classroom could enhance English Language in school-based assessment towards their perception and practice. There are three English language teachers and three classes of lower secondary school are involved in this study. Through structured interview, observation, field note and picture taking the researcher adopted a triangular approach for this research. The findings indicated that Communicative Language Teaching method and teacher leadership could enhance English language in school-based assessment. Teachers practice both areas in their teaching and learning process showed a great impact towards students' participation in their learning process. Teachers use various activities that include small group activities, role play, pair work and games in which learners are given the opportunity to use grammatical structures that have been presented or drilled. Students are trained to use the language in real classroom situation and Communicative Language Teaching method emphasised using language which is rich, varied and unpredictable inputs. Additionally, teacher leadership gives a positive attitude towards learners to practice English language and their engagement to participate in the classroom activities. Motivation, encouragement, creativity and good rapport shown by teachers have given a positive learning attitude among the students that could enhance English language in school-based assessment. The findings indicated that both Communicative Language Teaching method and teacher leadership could enhance English language in school-based assessment.

Abstracts Session 16

Meningkatkan Penguasaan Kemahiran Penambahan Dua Pecahan Wajar Yang Tidak Sama Penyebut Melalui Kotak Pecahan (Improve The Mastering Skill Of Adding Two Common Fraction With Different Denominator Through Fraction Box)

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Addition of fraction is one of the mathematical skills learned in level 2 of primary school. Pupils need to master these skills to facilitate the learning of addition of fraction with units. However, most of the teachers and students in primary schools assume that this skill is difficult to master well. Therefore, this action research conducted purposely to help Year 4 pupils master the skills of adding two common fraction with different denominator through Fraction Box. This action research uses the Stephen Kemmis Research Model. Five students were selected from a school in Miri, Sarawak. Respondents' achievement is measured by using three technics, including document analysis, observation and interview. The results showed the change in the usual teaching approach by using Fraction Box could improve the mastery of respondents in addition of fraction.

Keywords: Fraction Box, addition of fraction, common fraction, different denominator, Year 4 pupils

Penggunaan Kaedah Sigai Dalam Meningkatkan Kemahiran Mendarab Sebarang Nombor Hingga Tiga Digit Dengan Satu Digit (Using Of Sigai Method To Improve The Skill Of Multiply Any Three Digits Number By One Digit)

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The skill of multiply any numbers up to three digits by one digit is one of the basic operations that need to be study in Year 3. Students need to master this skill so that they can master other skill easily such as the skill of division. During the practicum at one of the school in Miri, there are some students who are weak in multiplication. Thus, this action research was carried out to help these student improve the skill of multiply any numbers up to three digits by one digit using Sigai Method. This research was carried out base on the Kemmis and Taggart Model involving 10 respondents. The data were collected through document analysis, observation and interview. The instruments involved are worksheets, observation checklists and interview questions. The result show that Sigai Method can help respondents in mastering this multiplication skill and can attract respondents interest in doing multiplication. The result also show that peer mentoring in cycle 2 can help respondents in mastering multiplication by using Sigai Method.

Keywords: Sigai Method, skill of multiply, Year 3 students, peer mentoring

Teknik Palang: Menjawab Soalan Pembahagian Nombor Dengan Nombor Dua Digit

(‘Teknik Palang’: Answering Division Questions With Two Digits Divisor)

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This action research was conducted to help Year 4 pupils in enhancing their ability to answer division questions by two digits divisors using “Teknik Palang”. ‘Teknik Palang’ is a technique of drawing fish bar to replace long division in solving division questions. Stephen Kemmis & McTaggart Model was used as a guideline in planning action plan. The respondents consist of 4 Year 4 pupils from a primary school in Bekenu district. Data collected through document analysis and questionnaires. The data from the worksheets were analyzed based on the number of questions which were answered correctly. Data from the questionnaires were analyzed based on the number of agreement of statement. After the first cycle, modifications made by adding ‘SPAD’ table to the “Teknik Palang”. The findings showed that there was improvement in the mastery of division method by two digits divisors after using ‘Teknik Palang’. Respondents also shows their interest towards the use of ‘Teknik Palang’.

Keywords: ‘Teknik Palang’, ‘SPAD’ Table, division, interest, Year 4 Pupils

Penggunaan Kaedah ‘Siam Tu’ung Osundu’ Dalam Meningkatkan Kemahiran Mendarab Murid

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This study aims to identify the multiplication skill among the pupils by using “Siam Tu’ung Osundu” method that origin from Kadazan Dusun language. 4 respondents are chosen according to their performance in the diagnostic test. There are two important steps in the implementation of this action research which is the teaching sessions of “Siam Tu’ung Osundu” and the exercises by using worksheets. Observation and interview used to assess the improvement in pupil’s multiplication skill. While the pre-test, post-test and the worksheets used to assess the level of pupil’s achievement. The finding shows that the pupil’s achievement in multiplication is increase by using the “Siam Tu’ung Osundu”. Pupil’s achievement in pre-test was lower than in post-test. The mean of pupil’s achievement in pre-test is increase from 17.5 % to 87.5 % in the post-test. Overall, the mean difference between pre-test and post-test is high which is 70 %. For further study, the implementation of ICT could be use in order to develop pupil’s potential and their achievement in multiplication.

Keywords: multiplication skill, “Siam Tu’ung Osundu” method, magic box

**Tahap Kemahiran Proses Sains Berkaitan Topik Biologi
Di Kalangan Guru Bukan-Sains Sekolah Rendah
(The Level Of Science Process Skills Related To Biology Topics Among
Primary School Non-Science Teachers)**

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Teachers' and students' thinking skills in science can be stimulated by their proficiency in science process skills (SPS). This study was conducted to identify the level of science process skills (SPS) among primary school non-science teachers in classifying, communicating, interpreting information and controlling variables. A total of 86 teachers who took elective science in graduate studies in one of the Institute of Teacher Education Malaysia involved in the study. The instrument consists of 30 multiple choice questions related to biology topics with Cronbach Alpha (α)=0.86. Data were analysed by descriptive and inferential statistics using min, t-test, ANOVA and LSD. The findings showed that the overall level of SPS respondents were at a good level ($78.13 \pm 8.23\%$), with the highest level of SPS was the controlling variables ($92.50 \pm 19.50\%$) followed by communicating ($87.00 \pm 14.33\%$), classifying ($79.25 \pm 10.63\%$) and interpreting information ($71.64 \pm 12.86\%$). The overall level of SPS respondents found no significant differences across gender, stream schooling and experience in teaching science. An analysis of the SPS studied found that only the controlling variables that have significant differences between male and female respondents ($t=1.989$; $p=0.049$), while classifying was found to have significant differences across stream schooling ($t=2.024$; $p=0.046$) and experience in teaching science ($F(2,83)=3.190$; $p=0.046$). LSD test showed that respondents who taught science for more than one year were more proficient than less one year in the classifying skills. These findings have implications, particularly improvements should be made to the SPS courses for primary school non-science teachers.

Key words: Science process skills, primary school non-science teachers, biology

**Perspektif Pelajar Terhadap Penerapan Kemahiran Berfikir Aras Tinggi
(Kbat) Dalam Subjek Biologi Di Daerah Limbang, Sarawak
(Students' Perspective Towards Implementation Of Higher Order Thinking
Skills (Hots) For The Subject Biology In The Limbang District In Sarawak)**

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This study aimed to analyse the implementation of the Higher Order Thinking Skills (HOTS) by teachers in Biology from the perspective of students in Limbang district. The study also looked the difference of students' perspective towards the implementation HOTS in Biology in by gender and levels of students' achievement. This study used quantitative survey method through the questionnaires which using 5.0 Likert scale. A pilot study was conducted on 25 Form Four students and got the Cronbach's Alfa reliability coefficient of 0.795. The sample consists of 150 Form Four secondary school students who took the subject of Biology in Limbang district. The data were analyzed by using the Statistical Package for the Social Science Version 21.0 (SPSS 21.0). T-test was used to compare the perspectives of students by gender and one-way ANOVA

test was used to see the perspectives of students by different levels of achievement. The average score and percent agreement from all respondents was 3.1939 and 63.88% and showed no HOTS application in teaching of Form Four Biology. Through the t-test, which were measured at the 95% confidence interval, boys' mean ($X = 3.2333$) were higher than girls' ($X = 3.1436$) of 0.0897 ($p > 0.05$) and was not significant. In terms of achievement, it was found that $F(df) = 3,138$; $p = 0.046$ ($p < 0.05$) and showed a significant difference between the students' perspective on the implementation of HOTS in Biology by the achievement. In conclusion, there was no HOTS implementation by teachers in Biology in the perspective of Form Four students in Limbang. There was no significant difference of students' perspective to HOTS in Biology in Limbang by gender, while there were significant differences between the perspectives of students applying HOTS in Biology by the achievement.

Key Words: HOTS- Higher Order Thinking Skills

Abstracts Session 17

Penggunaan Bubblebee Sebagai Terapi Bagi Murid Bermasalah Pembelajaran

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Play therapy in the context of education is a means to help students with learning disabilities respond to an activity or skill. Through the game, it can help stimulate the minds of students with learning disabilities since they have difficulty remembering and calling back a word. However, teachers and parents have little or no knowledge and understanding of this concept. Therefore, this study aimed to examine the effectiveness Bubblebee game against students with learning disabilities in terms of the level of focus in the learning and the use of gross and fine motor skills. This field study using observations made on 10 students with learning disabilities based on random sampling. The findings will provide an overview of the focus on learning and change use of gross and fine motor skills for students with learning disabilities as a result of this Bubblebee game. It is hoped the findings could provide additional information to the target groups as well as giving suggestions of activities that can be done to help students with learning disabilities to be more focused and increase the use of gross and fine motor skills.

Keywords : play therapy, students with learning disabilities

Transformasi Pengajaran Guru Melalui Maklum Balas Pasca Penyeliaan

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Literature shows that the feedback after clinical supervision is a dominant strategy that should be applied by the administration in the process of implementing supervision. This is because supervision of high impact is determinant to achieving the ultimate goal of this practice is to strengthen the quality of teaching in the classroom. At the same time, the literature indicates that the quality of feedback supervision is still perceived as less effective, especially in the postconference phase in clinical supervision. Postconference phase supervision should be completed preferably by elements of the feedback phase information sharing between supervisors and teachers to see any advantages or disadvantages to action to stabilize and improve the practice of teaching and learning in the classroom. This conceptual article discusses potential feedback element supervisory practices as determinants of the quality of teachers in transforming teaching and learning in the classroom.

Keywords: clinical supervision, supervisory feedback, teaching transformation, teaching quality

**Transformasi Amalan Pengajaran Di Dalam Program Kelas Pendidikan Khas
Integrasi Dengan Alat Pengurusan Grafik
(Transformation Of Teaching Practice In Special Education Programme
Integration Class With Graphic Organizer)**

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This study was conducted to examine the effectiveness of using graphical management tools (Graphic Organizer - GO) in teaching and learning in the classroom for Special Education Integration Programme, Sekolah Kebangsaan Combined, Kuching. This study focuses on the use of various tools in the learning of some subjects taught in Special Education Integration Programme at Sekolah Kebangsaan Combined, Kuching. Respondents consisted of 8 teachers and 26 students of various types of learning disabilities as research subjects. The research of this qualitative study showed that students of Special Education Integration Programme were not able to learn as ordinary students is incorrect. Teaching and learning objectives using graphical management tool to increase understanding and interest in learning among students is appropriate and achievable. The results showed that certain students were able to learn to use graphical management tools as aids to increase interest in their learning and teachers of Special Education Integration Programme should try to implement the graphic form of teaching method.

Keywords: Graphic organizer, integration, special education

**Piawaian Ujian Membaca Bukan Perkataan Sebagai Instrumen Mengenal
Pasti Disleksia Al Quran: Satu Kajian Rintis**

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Masalah membaca adalah masalah utama bagi golongan disleksia. Ujian membaca bukan perkataan kebiasaannya digunakan sebagai salah satu instrumen bagi mengenal pasti masalah disleksia. Murid disleksia dilaporkan mempunyai masalah dalam ujian membaca jenis ini. Ujian membaca bukan perkataan digunakan sebagai salah satu ujian bagi mengenal pasti disleksia al Quran. Satu Kajian rintis dijalankan bagi melaporkan tentang pembinaan ujian dan menguji ciri-ciri psikometri kebolehpercayaan dan kesahan ujian tersebut. Teori pembinaan instrumen ujian oleh Miller, Lovler & McIntire (2013) digunakan dalam kajian ini. Jumlah sampel yang digunakan adalah sebanyak 100 orang murid dari dua buah sekolah rendah agama. Kesahan isi kandungan ujian didapati dari pengesahan panel pakar melalui semakan dan perbincangan. Kesahan konstruk ujian diperolehi dari ujian korelasi antara item-item ujian dengan skor ujian. Kesahan kriterion pula diperolehi dengan menjalankan ujian korelasi antara ujian membaca bukan perkataan dan ujian tilawah dalam mengukur kriteria membaca. Dapatan kajian menunjukkan pekali kebolehpercayaan ujian adalah pada nilai 0.980. Keputusan ujian membuktikan bahawa ujian membaca bukan perkataan yang dibina ini boleh digunakan dalam ujian sebenar bagi mengukur tahap membaca murid dalam mengenal pasti

disleksia al Quran. Ini adalah kerana ujian ini telah mematuhi proses pembinaan ujian dan menepati ciri-ciri psikometri kebolehppercayaan dan kesahan ujian.

Kata Kunci: Disleksia, Disleksia jenis Fonologi, Ujian Tilawah, Disleksia al Quran, Ujian Bacaan Bukan Perkataan.

Sikap Terhadap Perubahan Guru Besar Dan Pengaruhnya Ke Atas Kepimpinan Instruksional Sekolah Rendah Di Samarahan, Sarawak (Changes In Attitude To Headmasters And Effect On Primary School Instructional Leadership In Samarahan, Sarawak)

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This research aims to identify attitudes towards change in primary school headmaster Samarahan (Samarahan District, District Simunjan, Serian District), Sarawak, based on four dimensions define and shape the goals of the school, taking care of the instructional program, encourage a climate of learning and shaping the goals of school friendly and help each other. Also reviewed is the attitude toward change based on the dimensions of cognitive, affective, and behavioral and instructional leadership variables that contribute to the attitude toward change. Conceptual framework is built based on a combination of Instructional Leadership Model Ballinger and Murphy, Model Attitude toward change by Dunham et. Al. and Maio and Haddock. The design combines quantitative methods (questionnaires) and qualitative (interview). Questionnaire modified from *Principle Instructional Management Rating Scale* (PIMRS) to collect data on instructional leadership practices and attitudes toward The inventory of change for data attitude toward change. The data were analyzed using the *Statistical Package for Social Science* (SPSS) version 21.0. A sample of 975 people of 187 teachers and 788 teachers from five primary schools in Samarahan selected by cluster sampling method multiple layers, while 14 respondents were selected by purposive sampling for interviews. The data were analyzed using descriptive statistics (percentage, frequency, mean, standard deviation) and statistical inference (one-way MANOVA and multiple stepwise regression). The findings also showed significant differences in all dimensions of instructional leadership based on gender, position of headmaster excellent. Attitudes toward change also showed significant differences in the dimensions of cognitive, affective and behavior based on gender, position of headmaster excellent and the experience as a great teacher. The study also found dimensional shape-friendly school environment and help each other to give the largest contribution to the change in attitude among the great teachers. The study also seeks to explain the great teacher instructional practice leadership at a good level in Samarahan and exhibit a positive attitude toward change. Therefore, this information could help the authorities to plan strategic actions such as courses for professional development to preserve the school's headmaster leadership excellence in Sarawak and Malaysia in particular.

Students And Lecturers' Perception On Meritocracy System In Malaysian Matriculation Colleges

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The purpose of this study is to investigate the perception of Malay students and lecturers on meritocracy system and its relationship with academic performance in Matriculation Colleges in Malaysia. The sample consisted of 1800 students and 180 lecturers from seven Matriculation Colleges in Malaysia. Data were collected using students' and lecturers' questionnaires that comprised seven domains related to meritocracy which include concept, implementation system, objective and effect of meritocracy system, students' learning, lecturers' teaching, and learning environment. Data were analyzed using SPSS version 11. A one-way ANOVA, UNIVARIATE ANOVA and t-test were used in testing the research hypotheses. The results indicated differences in the perception of students and lecturers on meritocracy system. There was a significant difference in the students' mean scores on aspects of readiness based on previous schools. There were also significant differences in the mean scores on lecturers' readiness and their area of specialisation on meritocracy system. There were also significant differences in the mean scores on expectation, needs and constraints among students and lecturers. There were also significant differences on quality, implication of commitment, and motivation of students and lecturers on meritocracy system. They offer insights on the level of readiness in addressing meritocracy system among students and lecturers in Matriculation Colleges in Malaysia. It also necessitates continual support and guidance to upgrade or improve students' learning and thinking skills to achieve better academic performances in matriculation colleges and thereafter in university.

Keywords: Meritocracy System, Matriculation Students and Lecturers, Perception

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通过合作学习法帮助学员掌握口语交际 (Cooperative Learning Helps Students To Master Chinese Language Speaking Skills)

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This action research was conducted to help the students master their Chinese Language Speaking Skills by cooperative learning. Kemmis and McTaggart (1988) Action Research Model which consists four steps: planning, acting, observing and reflecting with two cycles and six actions were used to conduct this research. The data of the study were collected through observation, journals and interviews. Four PPISMP students from one of the Institute Of Teacher Training Education in Sarawak were selected as respondents according to an observation. They were one boy and three girls. The data were analysed based on the involvement of the respondents in speaking activities using cooperative learning. The findings of the two cycles indicated that cooperative learning was able to help the students master their Chinese Language Speaking Skills.

Key words: Cooperative learning, Chinese Language Speaking Skills

Penggunaan Teori Rasional Emotif Tingkah Laku Dalam Kalangan Guru Pelatih Bimbingan dan Kaunseling (The Usage Of Rational Emotive Behavioural Therapy Among Guidance And Counselling Students At Institute Of Teachers' Study Sarawak Campus)

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The usage of Rational Emotive Behavioural Therapy (REBT) among counsellors in the institute of higher studies within the ministry of education and schools seems to be very popular because of its easy usage, simple, straight forward, short duration of session, easier to use. Rational Emotive Behavioral Therapy believe that the irrational thinking within the client is the main cause of the problems. Therefore the most important technique to be used by the Rational Emotive Behavioral Therapy should be to guide the client to develop rational thinking. The recorded counselling sessions by twenty three Semester Eight students during the three phases of practicum will be transcribed and analyzed. Among the main aims of the study are to investigate the understanding of the trainees on the usage of Rational Emotive Behavioral Therapy as well as to get their opinions and rationals on their usage of REBT in counselling sessions. The study will be using the Qualitative Sequential Case Study Design.

Keywords: Rational Emotive Behavioral Therapy Theory, Irrational dan rational thinking, Sequential Qualitative Case Study

Teknik Petak Bagi Menangani Masalah Kekemasan Penulisan Sekolah Rendah
(Using Box Technique To Improve The Quality Of Handwriting Among Primary Students)

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This study was conducted to improve the quality of handwriting through training using box technique. The researchers found that students of primary, secondary and tertiary level students show messy writing despite. Teaching writing skills being emphasized in primary schools. The aim of teaching neatness of writing is to prepare students to answer questions in the exam so that the writing is easily read by the reader. Writing skills are also listed in the syllabus in paragraph 3.2.7 Writing a single phrase and sentence mechanically cursive handwriting properly and neatly. However, there are still many students who fail to master this skill. This study was carried out in several primary schools and pupils have gone through several months of writing exercises using work sheets that were created, called 'box technique' that could improve pupils handwriting. Finally it is hoped that this technique can be disseminated as a practice in school practice among students at pre-school and primary school.

'Going Digital': Enhancing TPACK And Inspiring Digital Immigrant Teachers For 21st Century Teaching Through Professional Learning Community

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As a result of rapid dissemination of digital technology and the sheer volume of interaction with it, 21st century students think and process information fundamentally differently from their predecessors. There is an urgent need for 21st century teachers to start communicating in the language and style of their students (Prensky, 2001). This includes using technology in a way that leads to change in both teaching and learning structures which ensure that learning is meaningful for students, connected to their interests and understandings about the world, and caters to a range of learning styles and levels of intelligence (Rourke, 2002). This, however, is challenging especially for teachers who are less familiar with using technology in teaching. To inspire a group of ESL 'digital immigrant' teachers in Kota Kinabalu, Sabah, Malaysia to apply 21st century teaching approaches which includes technology integration in their classroom, a professional learning community (PLC) which involves pre-service teachers (digital natives) and in-service teachers (digital immigrants) is set up. Exchange of knowledge between these two groups through a series of sharing sessions were conducted to provide the teachers with not only the technical aspects of technology, but also understanding that technology has affordances and constraints (Harris, Mishra & Koehler, 2009). Using PLC as a platform to enhance the teachers' TPACK, this study adopted the IDDIRR model (Introduce, Demonstrate, Develop, Implement, Reflect, Revise) which allows teachers to mobilise their multiple knowledge on curricular contents, pedagogy and technology. The data for this study was collected through surveys, interviews and written reflections. The qualitative data from this study was analysed using NVIVO software via thematic analysis. The findings suggest that the supportive

environment and the presence of more knowledgeable peers within the PLC helped in enhancing the teachers TPACK.

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Applying a Collaborative Metacognitive Community into asynchronous text-based online discussion to investigate the performance of higher level thinking skills among novice teachers

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Thinking is an essential skill in education, namely in higher education. Therefore, the purpose of this study was to investigate learners' performance on higher level thinking skills in an asynchronous text-based online discussion in a Collaborative Metacognitive Community. This model was developed under the umbrella of the socio-constructivist approach, in which learners are encouraged to become active learners. Later, message postings were extracted to determine the levels of thinking skills exhibited by the learners. Furthermore, data from learners' reflective journals and interviews were triangulated to get the big picture of learners' thinking skills. Results showed that learners' thinking skills can be enhanced through a Collaborative Metacognitive Community in asynchronous text-based online discussions. The paper will discuss more on the learners who had excelled in the higher level thinking skills.

Keywords: Thinking skills, technology, higher education

Young Junior: Satu Kajian Awal (Young Junior: A Preliminary Study)

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Education in the 21st Century emphasizes mastery of various skills in order to ensure the quality of education in line with current needs and nurturing human capital. Among these skills are soft skills. Thus, teacher trainees in teacher education institutions should be exposed, trained and subsequently empowered with these skills to become an effective agent of change in education and development of the country. As a lecturer in a teacher education institute, I conducted a pilot study, known as the 'Young Junior' in two courses of Linear Algebra (a group of study = 20 students) and Basic Statistics (4 groups of study = 77 students). 'Young Junior' is a student centered teaching and learning strategy with each teacher trainees were given the responsibility to conduct a lecture. They were given a brief lecture notes a week before the actual lecture date. Their task is to find additional informations based on the lecture notes and the provided weekly plan (LAM-PT-05-02). Observations and video recordings were made during the lecture sessions. Interviews conducted at the end of the semester after the end of the courses. The results of the pilot study found that teacher trainees showed two main soft skills which were the ability in communication and information management skills.

Keywords: Young Junior, communication skills, information management

Penggunaan Kaedah Bahagi Suur (Pagar) Dalam Penguasaan Bahagi Nombor Bulat Dengan Nombor Satu Digit (Mastering Division Of Whole Number By A Digit Number Using Bahagi Suur (Fences) Technique)

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This purpose of the study was to examine the increasing dominance of students in Year 4 of the operations division of whole numbers by a digit number at a primary school in Saratok, Sarawak. This study is an action research of six participants using quantitative and qualitative methods. A teaching and learning method named Bahagi Suur (Fences) Technique was introduced. Worksheets and tasks-based interview are used to identify students' performance after intervention. This method is used so that the student could arrange the answers on the right place value and according to the algorithm correctly. Data analysis is carried out using the correct score and the percent of worksheets distributed before and after the intervention. Observations were recorded during the class. Tasks-based interview was recorded and analyzed after the intervention class. Overall, the results showed the improvement in the proficiency of division of whole numbers by a number digit. The findings also showed that the participants can arrange the place value properly and make the division algorithm correctly. The results of observations showed that students are more interested in answering the question of division using Kaedah Bahagi Suur rather than using the long division method. Some suggestions and improvements have been made for the positive impacts in the lesson.

Keywords: Division, pupils, whole numbers, procedural

Improving Students' Ability In Solving Mathematics Problem Through Differentiated Instruction By Multiple Intelligences: An Action Research

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This study is designed to improve students' ability in solving mathematics problems and to increase interests towards solving mathematics problems by implementing differentiated instruction for the topic of Statistics. This action research was studied for 15 days. The subject of the study was 16 of Form 3 students with low performance in a rural school, Sarawak. The students were grouped through the Multiple Intelligences (MI) Test by V. Chislett and A. Chapman 2005 based on Howard Gardner's MI Model (Gardner, 2003). The research employed the Model of Kemmis and McTaggart (1988). It was carried out in two cycles; each cycle consists of two classroom meetings. Data were collected through surveys, peer observation, interview and students' products. It can be difficult to find adequate strategies when teaching problem solving in a standard based mathematics classroom but when the qualitative and quantitative data were analyzed, the results demonstrated that the subjects displayed greater ability in solving mathematics problems and their interests towards solving mathematics problems also increased. In our era where individual differences come into prominence (Lash, 2004), more importance should be attached to the theory of MI that can support the students' individuality and by doing so, can

make learning mathematics more pleasant. This study is an invaluable and inspiring experience that gives the researcher new knowledge. Researcher also learned to be more critical and flexible in teaching mathematics. It is hoped that this study can help other mathematics teachers to achieve a better teaching and learning process

Keywords: differentiated instruction, problem solving, Multiple Intelligences, rural school, low performance

Abstracts Session 20

Integrasi Teknologi Dalam Bilik Darjah Sains: Adakah Kita Tahu Apa Yang Kita Perlu Tahu?

(Integrating Technology In Science Classroom: Do We Know What We Should Know?)

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Advances in technology promises significant changes in the way Science is taught and learned. Technology offers an opportunity to explore natural phenomena may be difficult or impossible to see as well as allowing students perform experiments difficult, too costly and dangerous to be implemented by means of usual. However, teachers need knowledge and sufficient skills to execute the instructions effectively using technology. This study investigates the levels of teacher knowledge among Science teachers of 59 secondary schools in Kuching, Bau, Padawan, Kota Samarahan, Serian and Simunjan, Sarawak. This study focuses on the teachers' Pedagogical Knowledge and Technological Pedagogical Knowledge. The gathered research data used a set of questionnaire and analysed using descriptive statistics. The study found the level of Pedagogical Knowledge was high compared with the level of Technological Pedagogical Knowledge which is at a moderate level. This study is important to determine the needs for professional development for Science teachers in the digital age.

Key words: Pedagogical knowledge, Technological Pedagogical Knowledge, Science teacher, secondary school

Kesedaran Metakognitif Dan Hubungannya Terhadap Pencapaian Matematik Pengurusan Dalam Kalangan Pelajar Politeknik

(Metacognitive Awareness And Its Relation To Business Mathematics Achievement Among Polytechnics Students)

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This survey study aimed to identify the influence and contribution of metacognitive awareness and its relationship towards academic achievement among polytechnics students. This quantitative study involving 510 students from four polytechnics as respondents. Data was collected through a questionnaire which was adapted from Metacognitive Awareness Instrument (MAI) developed by Schraw and Dennison (1994). Data were analyzed using SPSS version 21 and Amos version 18. Descriptive analysis (mean and standard deviation) and inferential analysis of parametric statistical tests (ANOVA and Pearson correlation) was conducted to answer the research questions. Path analysis of Structural Equation Modeling (SEM) was performed and proof that the domain of cognitive knowledge and cognitive regulation contribute significantly towards the Business Mathematics achievements. The findings also shows that polytechnics students metacognitive awareness level are moderate. The implementation of

Metacognitive awareness can improve student achievement, and also the important element in creating a culture of knowledge through lifelong learning.

Pengintegrasian Permainan Digital Dalam Penyelesaian Masalah Matematik Sekolah Rendah

(Integrating Digital Game In Primary School Mathematics Problem)

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Fraction is a concept that is very challenging and primary school students often have problems with the operation of fraction. The low level of mastery and understanding of the concepts that caused students often make mistakes and are not interested in learning about fractions. This study aims to encourage and increase student achievement through the integration of digital games in helping solve problems in topics of Addition and Subtraction Fractions. This research actions using four main process planning, acting, observing and reflecting. The study involved Year Five students in rural schools Lawas, Sarawak. Data collected and analyzed by using pre- and post-test instrument, document analysis, semi-structured interviews and questionnaires against the interest of students. Results showed an increase of at least 20% for each respondent after the treatment session. Respondents also managed to solve the problems presented well and is supported by the findings of interviews conducted. The findings show that the integration of digital games is highly effective in helping students improve student interest and achievement. Hopefully this digital games can provide an alternative to teachers to improve their skills of pupils in addition and subtraction of fractions.

Keywords: Integration, digital games, subtraction and addition of fractions

Penerapan Nilai Matematik Dalam Kalangan Guru Matematik Sekolah Menengah Kebangsaan Luar Bandar

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This study aims to explore the inculcation of mathematics values and mathematical understanding among the secondary school mathematics teachers in rural areas. The study involved three teachers from a secondary school in the area Kapit, Sarawak. Qualitative data were collected through classroom observations, individual interviews, field notes and daily lesson plans. All interviews were recorded using audio recording device. The results showed that the inculcation of the mathematics values is done in implicitly, especially the objectism. Mathematics teachers believe that something can be seen, such as objects can help students build a stronger mathematical concepts. The study also showed the teacher's role is to explain the concept in the early teaching, in addition to the sample before finally ask students to solve problems. Teaching mathematics more teacher-centered where the execution of instruction was preceded by an explanation of the mathematical concepts and examples of solutions to problems before ending with a question to be resolved by the students. Such teaching is considered by teachers more effectively and easily understood. The tendency of teachers to help students, and rarely provide

opportunities for students to overcome the difficulties in solving their own problems. So, the mathematical values such as rationalism which emphasizes student submissions and the openness that encourages students to prove a formula were rarely focused. Moreover, this finding shows that the mathematical values are foreign to the teachers involved in this study. Mathematical values were equated with good values, a value of public education.

Abstracts Session 21

Impak Pelaksanaan Pengajaran Dan Pembelajaran Abad Ke-21 dalam Kalangan Guru Pelatih PISMP Institut Pendidikan Guru: Satu Kajian Fenomenologi Terhadap Cabaran Dan Manfaat Peralihan Kepada Model Pembelajaran "*Flipped Classroom*"

(The Impact Of Implementing 21st Century Teaching And Learning Among The PISMP (*Bachelor Of Teaching*) Trainee Teachers In Institute Of Teacher Education: A Phenomenology Study Of Challenges And Benefits Of The Transition To "*Flipped Classroom*" Models)

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Transformation towards student-centered learning approaches such as "Flipped Classroom" is increasing as a result of the need to provide students with the skills of 21st century teaching and learning skills such as creativity, collaboration and independent learning. "Flipped learning" is a pedagogical approach in which instruction is given directly outside of the teaching and learning hours, to transform learning opportunities to students who are dynamic and interactive with the guide of educators in applying these concepts and engage in an active and creative learning context. Although "flipped learning" has been growing rapidly, but still there is a lack of research and resources that can help educators turn to this latest pedagogical practices. In an effort to bridge this gap, a phenomenological qualitative study conducted on 5 lecturers from Institut Pendidikan Guru Kampus Darulaman, who practice the elements of the "flipped classroom" model. The results of the study showed there was a shift towards learning "flipped learning". These phases include pedagogy and practices in line with the changes in the learning environment and its impact on the benefits and challenges of implementing this model. This study also identified the areas for improvement of pedagogical practices and the lack of infrastructure such as the need to improve collaboration between departments in IPGK (Teachers Training Institute Campus) during the implementation process of teaching and learning. Furthermore, the experience of the 21st century educators also provide insight and can be used as a resource for educators who want to switch to a "flipped classroom" in the future.

Keywords: "flipped learning", 21st-century learning, active learning, "flipped classroom" support materials, student-centered approach

Masalah Pengajaran dan Pembelajaran Bahasa Melayu dalam Kalangan Murid Orang Asli di Terengganu

(The Problem of Teaching and Learning Malay Language among Aborigines Students in Terengganu)

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Aboriginal people are also the community that we should give extra attention in the mainstream of development, especially in education. Recognizing this situation, the government has implemented various policies, especially in

education by taking the initiative to solve the problem among Aboriginal students. However, many problems still persist, including the problem of dropout, attendance and performance in tests. However, the dropout among Aboriginal still yet occurred these days. The overall achievement among them are still at an alarming rate when we compared with the achievements of normal pupils. The majority of Aboriginal students receive a formal education in primary school and complete their schooling at secondary schools without sitting for public examination. As a result of this situation only 2 percent of Aboriginal students have successfully pursued their studies in higher learning institution. The other vast majority of Aboriginal students are not acquired by their 3M skills (writing, reading and calculating) which also involved with literacy problem in Malay Language. The Penan First Introduction Curriculum (KAP/ PFIC) in 2007 was among the efforts undertaken by the government in overcoming the problem of Aboriginal student in their Malay Language literacy. In Malaysia Education Blueprint (2013-2025) teaching quality is among the main agenda emphasis by the government which include the pedagogy of language teaching among the Aboriginal students. This is because the teaching method greatly influences students in mastering the subject matter, especially in terms of mastery of Malay Language. With regard to the issue of the problem, a research has been done with the primary objective to see the pedagogy of teaching Malay Language among the Aboriginal students at, Pegam River primary school in Terengganu. This study is based on the following issues: (i) What are the problem faced by teachers in teaching Malay Language among Aboriginal students? The study included five Malay Language teachers, school management and Aboriginals parents. This study was conducted using qualitative methods in the form of case studies. Data were collected through field work using techniques of observation, document analysis and focus groups interviews (grouping). The study found that teachers are faced with the problem of illiteracy, literacy of Malay Language, and the language barrier which include the mother tongue and plus the students' absentees to school.

Keywords: Education, Aboriginal, Malay Language Teaching Problem, Aboriginal Pupils of Pergam River.

**Meningkatkan Peratus Pencapaian Matematik Pelajar Tingkatan 5
Perdagangan Dalam Tajuk Graf Fungsi (Ii) Dengan Kaedah “Duit Raya”
(To Increase The Performance The Of 5 Perdagangan Students In Topic
Graph Of Functions (Ii) With “Duit Raya” Method)**

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Sekolah Menengah Kebangsaan Chalok Model Khas, Terengganu

Graph of Functions (II) is one of the topics in Form 5 Mathematics syllabus in Sijil Pelajaran Malaysia (SPM). From my experience in teaching this topic, I find that most students are very weak in mastering it. The problem review was made through observations, interviews among the students and analyzing students' answers during the activities in the classroom. Most of the answers were not accurate in solving the questions involving graphs. 10 out of 25 students of 5 Perdagangan (5PD) also admitted that they were very weak in determining the value on the graph. Pre-Test were conducted in detecting the main weakness related to this topic. The Pre-Test result revealed that 10 out of 25 students in this

class did not master the skill in determining the value on the graph. In relation to the issue, a research was carried out to help 5PD students of SMK Chalok to master this topic and also to preserve the excellence of Mathematics subject at SMK Chalok. The respondents of this research were 6 girls and 4 boys from 5PD. The research has used the method of 'Duit Raya' which was implemented in 4 weeks. After going through a few phases of implementation, this method of 'Duit Raya' has helped to increase the students' understanding in this topic. The Post-Test result showed the increment in the students' performance in mastering the topic of Graph of Functions (II).

Keywords : Graph of Functions (II), 5 Perdagangan, Method of 'Duit Raya'

Pelandai Bulan Of The Iban

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This study highlights the significance of an oral poetry in the Iban community which is called *Pelandai Bulan*, composed by the late Duning anak Gunggu. This traditional poem has never been studied academically although it is broadcast every morning at 6.10 by Radio Television Malaysia (Iban Section), Kuching. Objectively, based on the theory of structuralism and pragmatism, this study looks into its structure, theme and functions in the Iban community. This data was collected through artifacts, interviews and literature reviews, then analyzed qualitatively using J. Saldana's System Coding Methodology. It is emphasized here that its structure was constructed based on the general characteristics of a poem and it meets the standard and criteria of the oral poetry. Therefore, it can be used as a scholarly corpus in language studies. *Pelandai Bulan* conveys messages which are related significantly to the yearly routine of paddy planting among Iban farmers as its general theme. Thus, the poem at times, functions as a ritual guideline and calendar for the whole of the Iban agrarian community. This study shows that *Pelandai Bulan* may be used as a reference in Iban literature studies.

Poster Presentation Abstracts

Bengkel Inquiry Based Science In Education (IBSE) Bagi KSSR (Inquiry Based Science In Education (IBSE) Workshop For KSSR)

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IBSE Workshop has been started since 24th June 2014 under KEMASAINS Programme sponsored by Sarawak Foundation. The main objective of this workshop is to enhance the mastering of higher order thinking skills (HOTS) among the teachers and students through the approach of IBSE in Science for Standard Curriculum for Primary Schools (KSSR). This workshop involves 18 primary schools science teachers including Science Excellent Teacher and Science Master Trainers together with five lecturers from Teachers Training Centre, Sarawak Campus (IPGKS). 120 students from six participating schools around Miri which are SK Anchi, SK Temenggong Datuk Muip, SK Kg. Luak, SK Kg. Bakam, SK Tudan and SK Senadin has been participating in this programme. IBSE KSSR Module has been successfully developed through the implementation of this workshop. The development of this module is done periodically; starting with SCPS Science for Year 5 and followed by SCPS Science for Year 6. The Science teachers had designed inquiry activities after being exposed with IBSE concepts by the lecturers. Thereafter, these inquiry activities are tested during the pilot test by the teachers in the six participating schools. The editing of the module had been conducted during the workshops by teachers and lecturers involved.

Keywords: IBSE KSSR Module, inquiry, HOTS, workshop

Alat Musik 3R

3R Musical Instruments

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3R Musical Instrument is the outcome of creativity and innovation created from trash by 4 lecturers from Institute of Teacher Education in Miri Sarawak (IPGKS) which consist of 2 art lecturers and 2 music lecturers. The musical instrument created has a unique forms and able to produce sounds which is similar to the actual musical instruments. This Musical instrument was created to enable the teaching of art lesson for primary school, secondary school and higher educational institutions. Based on the experience with primary school and secondary school children shows that the instruments are suitable in teaching music lesson. According to the interview with 2 music teachers they were surprise by the innovation because it functions like ordinary musical instrument. The cheap cost of producing this musical instrument enables anyone to own it. Apart to be used in music lesson, it is also to encourage school activities such as songs competitions. The effectiveness of these creations was proven as our "Mulu Bats" won the competition organizes by PETRONAS Bintulu brunch. In Julai 2016 our

team won the first prize, second prize in 2015 and first prize in 2014. Besides that we were invited to perform by MLNG Bintulu, PETRONAS Bintulu Branch and Curtin University.

Keywords: 3R Musical Instrument, trash, cheap cost, unique forms

IDEA (It's Darn Easy Ah)

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Many primary school students especially phase 1 facing problems to master addition and subtraction. There are also students who can't identify and understand concepts related to time. Due to these problems, one innovation entitled IDEA, which is a teaching aid was produced. IDEA focus on helping students to increase proficiency in the skills of addition, subtraction and time. IDEA is geared to emphasize the concept of numbers, add, subtract and future operations and time. IDEA can give concrete experience in the classroom for students to solve Mathematic problems. Eight students from a primary school in Miri area were selected as participants in the use of this innovation in the classroom. Data was collected through document analysis and observation. The findings indicate that the use of IDEA in groups can improve their mastery in addition, subtraction and time.

Keywords: IDEA teaching aids, mastery, addition and subtraction, time

LIBERCUBE

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In Primary School Standard Curriculum (KSSR), teaching and learning process (PDP) conducted in the classroom is no longer confined to traditional teaching methods, but is more concerned with the achievement of learning outcomes by using various PDP methods. Dedicated teachers provide activities and innovative teaching materials in order to improve students understanding of mathematics concepts. During the practicum in the school, students were found to have problems in understanding the concept of basic operations, sequence of numbers, fractions, decimals and solid volume. Thus, Libercube kit is produced to assist students in mastering the concepts. Six students in preschool and 10 students in primary school involved in the use of Libercube kit. Data collected through document analysis and observation. The data from the worksheets were analyzed based on the concept of mastery learning and data from the observation were analyzed through the frequent of "Yes" and "No". The results showed that the use of the Libercube kit can improve the mastery and students' interest in the concepts of basic operations, sequence numbers, fractions, decimals, and solid volume. In addition to use in teaching the concept, Libercube kit also has eight additional functions related with mathematical skills, namely prime numbers, solid surface area, simplest fractions, equivalent fractions, number patterns, common form operations, mathematical sentences and multiplication tables as well as

three function related to Malay Language or English, namely the sequence of uppercase and lowercase letters, word construction and crosswords.

Keywords: Libercube, whole number, fractions, decimals, solid volume

通过听说法帮助国小生以华语说出完整的句子

(Listening And Speaking Helps National Primary School Pupils To Speak Complete Sentences In Chinese Language)

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This action research aims to help the government primary school pupils to speak complete sentences in Chinese Language by listening and speaking. The respondents consist of 8 year 5 pupils from one of the government primary school in Miri. They were 11 years old, 4 boys and 4 girls, 7 Iban and 1 Penan. I used Stephen Kemmis (1988) Action Research Model to develop the listening and speaking model for this study. The data were collected through observations, journals and interviews. I used qualitative method to analyse the data. The findings show that listening and speaking can help government primary school pupils to speak complete sentences in Chinese Language.

Keywords: Listening and Speaking, Chinese Language, Complete Sentences

Keberkesanan Permainan Ultimate Frisbee Terhadap Tahap Kecergasan Fizikal Berasaskan Kesihatan Pelajar Perempuan (The Effectiveness Of Ultimate Frisbee Towards Physical Fitness Level Among The Female Students)

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The study is carried out to measure the physical fitness level of female non-athlete students vocational college students in Kuching. Additionally, the study was determined to identify any significant changes on the students' fitness components with the intervention of Ultimate Frisbee in between the pre and post-test. The students involved were 16 female non-athletes from Year 1 Pre-Diploma Cosmetology Course. They had to undergo four battery tests in The Standard National Physical Fitness Test (SEGAk) which were the YMCA 3-Minute Step Test (3 minutes), Push-Up Test, Partial Curl-Up Test, Seat and Reach Test as well as the BMI test. It was discovered that the samples had a poor level of physical fitness, hence Ultimate Frisbee had been used as a treatment. The study was conducted over a period of four weeks; 3 sessions per week of about 60 minutes for each session. The results showed no difference in the classification of body mass index (BMI). However, the data had indicated a decline in weight (kg) among 8 out of the 16 samples. In addition, there were differences in the overall test results of SEGAk based on the pre and post-test. There was a significant reduction in the percentage of samples who were not fit from 37.5% to 18.75%, while the less active samples revealed an increase from 31.25% to 50%. In conclusion, this study has proven that Ultimate Frisbee is an effective treatment to increase the level of physical fitness among the female non-athlete students vocational college students in Kuching.

Key Words: Ultimate Frisbee, physical fitness, SEGAk Test

**Penggunaan Kad Merit Bagi Meningkatkan Penglibatan Murid Dalam
Kemahiran Asas Gimnastik Guling Depan
(The Uses Of Merit Card To Enhance The Involvement Of Students In Basic
Skills Of Gymnastics Front Roller)**

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Research was conducted to enhance the teaching and learning of Physical Education class as well to improve the female participation in basic skills of gymnastics movement of the front roller. Research involved 10 females from year six Inovatif in Sk.Bahang Penampang, Sabah. The interview and feedback questionnaires were used in this study. Survey and preliminary observation were also conducted during the activity. The results of the observation, students were found to have a problem to do the basic skills of gymnastics during the network roll movement. These problems exist because students were shy and have a low level of confidence to the physical form, a friend of the opposite sex and are concerned about the occurrence of injuries. One solution towards the problem is applying merit cards method using progression method that had been simplified. This method had been used to attract and to increased students involvement. After the research, the students behaviour and confident change drastically and increased tremendously. The intended group of students for the research had done the basic skill gymnastic applying front rolling front during the movement and had done it quite good. Overall, the research have positive impact and able to increase teacher teaching and learning towards the students in doing the rolling front movement.

Keywords : Physical Education, Merit Card, Students Involvement, Basic Skills Of Gymnastics Front Roller.

**Penggunaan Muzik Bagi Meningkatkan Penglibatan Murid Dalam Aktiviti
Pendidikan Jasmani
(Method Of Using Music To Improve Students Involvement In Physical
Education)**

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This study was conducted to enhance the involvement of Year 3 students in physical education (P.E) activities while improving the quality of teaching and learning skill. The study involved 18 students from Year 3 class and a teacher at SJK (C) Chung Hwa Tenghilan, Tuaran. Review and preliminary observations have been made to identify the problems faced by the students in the P.E class. The result of observation, it was found less active students engage in activities designed by the P.E teacher. Methods of using music during P.E class to attract pupils attention and increase their participants in the lesson. Treatment sessions were carried out in 3 weeks, every Wednesday for 60 minutes a week. The results showed that the students participation increased by 22.22% and their performance improvement by 22.22% when music is used in a PE class. Overall, this study has shown that music can help to increase student participation and to improve discipline while P.E lesson sessions became more fun.

Keywords: Physical Education, Music, Student involvement, Discipline

"Sound with Me" Program to Help Pupils in Mastering Construct 1 and 2 in LINUS 2.0

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Over the years of LINUS 2.0 implementation, hardly 100% pupils successfully mastered all 12 constructs especially in Year 1 and year 2 with construct 1 and construct 2 as the main problem. Especially in rural area schools. This study aims to study the pupils' improvement in mastering construct 1 and 2 of LINUS 2.0 using the program "Sound with Me" for the pupils who failed construct 1 and construct 2. Aiming to make sure that these pupils at least able to master the construct 1 and 2, this program were done in continuous manner after the first LINUS screening to cater pupils who did not pass the constructs. Instead of doing the activities in stuffed classroom environment, these activities were done in more relaxing surrounding to provide additional support to enable students who have literacy problems in English language. Findings and discussion will be elaborated in the paper.

Keywords: LINUS 2.0, Phonics, Students' Improvement, ESL, Literacy Problem

Teachers' Perspectives On The Use Of L1 In Language Classes In Rural Primary School In Bakong, Sarawak

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The use of mother tongue (L1) in language classes has been a constant issue debated among educators. Due to the common belief that the usage of L1 will interfere the learning of L2, it is difficult to determine the position of the L1 in teaching language classes especially in the rural primary school. The aim of this study was to identify teachers' perspectives on the use of L1 in language classes in rural primary school. A survey has been conducted with 12 language teachers of a rural school in Beluru, Bakong by using questionnaire. Hence, the study further identifies teachers' view on usage of L1 by answering open ended questions. Based on the percentage of the data taken, we then can come to a conclusion on whether should L1 or shouldn't it be used in language teaching.

Key words: *Mother tongue (L1), L2 teaching, perspectives, language teachers, rural primary school*

Reading Strategies To Develop Higher Order Thinking Skills (Hots) In Reading Comprehension

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Reading comprehension is one of the most crucial skills in English language learning. It is a skill developed from a student's reading skills and their background knowledge of English language. Higher order thinking skills (HOTS) among primary school students are being emphasized by the Ministry of

Education (MOE) guided by the Blueprint 2013-2015 and one of the six characteristics expected from the students in the blueprint is their thinking skills. Nevertheless, the primary school students are still struggling with the HOTS as they are not exposed to reading strategies which can help them to develop their HOTS. The aim of this paper is to identify the reading strategies imposed by the good language learners to improve their HOTS in reading comprehension. The data were collected from a set of questionnaires that consists of 30 questions about the students' reading strategies. The respondents are among 60 Year 4 good language learners in a primary school in Miri. The data analysis was done using frequency and percentage. From the study, teachers may expose the preferred reading strategies among the good learners to help their students develop their HOTS and other students can learn from the good learners by trying out their reading strategies.

Keywords: Reading comprehension, reading strategies, higher order thinking skills (HOTS), good language learners

“Teknik Putaran” Dalam Mengenalpasti Nilai Anu Penolakan Pecahan Bagi Murid Tahun 5

(“Rotation Technique” For Identify Unknown Values Of Substraction For Fraction Among Year Five Pupils)

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The purpose of this study is to identify the impacts of “Rotation Technique” learning in finding out the unknown value for subtraction of fractions among Year Five pupils. This study was conducted in rural area in Sarawak. This study was conducted using action research design. This study involved 17 Year Five pupils that were selected purposely. The quantitative and qualitative data were collected through pre and post test, interview and observation. Through this study, the participants were given four intervention sessions. The finding indicated that all participants showed increases in their achievement after learning “Rotation Technique”. This technique also succeeds to assist pupils to improve their skills in finding out the unknown value for subtraction of fraction.

Keywords: unknown value, subtraction of fraction, Rotation Technique

Enriching Pupils’ Vocabulary by Promoting Self -Independent Learning in Reading Literature Programme.

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In Malaysian primary school education system, pupils are introduced with literature components starting Year 4. Pupils are having difficulty to comprehend the literature content as they encounter abundant low frequency words while reading the text. It is time consuming activity to teach meaning of each unknown words in the classroom. Therefore, vocabulary expanding process requires pupils to be self-independent learners so they will be able to grasp more words rather

than only exposed by teacher. The aim of this paper is to investigate the effects of a reading literature programme in enriching pupils' vocabulary by promoting self-independent learning. Research was conducted with 52 primary school pupils using pre and post test and questionnaire. The findings from the research suggest positive outcome in encouraging the pupils to become autonomous learner. Result and discussion will be elaborated in the paper. These findings call for teachers to evaluate their instructional practises and to provide effective vocabulary learning support to help struggling readers among primary pupils.

Using Language Game To Reduce The Number Of Subject-Verb Agreement Errors Of Primary Pupils In Baram

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Poor grammar skill among Malaysian learners has become a national problem. This study aims to reduce the number of subject-verb agreement errors in simple present tense sentences by using language games. There were 25 pupils selected as respondents of this research which consist of 12 girls and 13 boys from one of the primary school in Baram, Sarawak. In order to reduce the number of subject-verb agreement errors in simple present tense sentences, language games was used in teaching and learning activities. A pre and post test evaluation was used in order to administer the pupils' improvement in reducing the number of subject-verb agreement errors. The analysis revealed that the use of language game would be a good tool to help pupils in subject verb agreement. Promoting games is suggested to help pupils to reduce the number of subject-verb agreement errors in simple present tense sentences.

Keywords: errors, language games, subject verb agreement, ESL

Kemahiran Menyelesaikan Operasi Bahagi Dengan Kaedah Akronim Murid Tahun Tiga

(Skill In Solving Division By Acronym Method For Year Three)

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This study aimed to test the effectiveness of solving division with the acronym method among students in year three. The design of this study is an action research which involves four students from a rural school near Kapit, Sarawak. Study participants were selected through purposive sampling. This study uses Vygotsky's social constructivism as a theoretical basis applying scaffolding techniques. Data were collected through pre and post tests and observation checklist. Data were analysed using Microsoft Excel. The results showed that student achievement increased after using the acronym method based on a comparison of pre and post test scores. The study also found the frequency of student conduct systematic errors is much higher than the random errors and mistakes of negligence based on the Cox model. Student perception survey findings based on the level of willingness, perseverance and self-confidence of students in division also increase after using the acronyms method. This suggested that the acronym method stimulate students' positive perception of a division. In conclusion, the acronym method is an effective method to improve

student achievement in solving the division. Further studies are needed to test the effectiveness of acronym method to the remedial or LINUS students.

Keywords: division, acronyms, long division, students' perceptions, scaffolding techniques

**Penguasaan Fakta Asas Darab Menggunakan Sifir Tambah Dapat Murid Tahun Lima
(Basic Facts Multiplication Mastery Using tables Add Student Gets Five Years)**

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The aim of this study is to improve the mastery of Basic Facts Multiplication (FAD) students using Tables Can Add (STD). Participants of this study consisted of five students in 5 Cerdik Hulu Langat, Selangor. Preferred study design is the action research. Pre and post tests used as instruments in this study. Test questions are divided into two main parts, namely the multiplication of single-digit and double-digit multiplication. Unstructured interviews were conducted and carried out observations using a checklist for reviewing the interest of students before and after the intervention. Data in this study will be analyzed using Microsoft Excel to get mean and percent of pupils score in pre and post test. The results showed an increase in the achievement of positive changes in study participants and study participants' interest can be seen through the observation made. The study participants tended to choose the method of STDs than older methods commonly used.

Keywords: basic multiplication facts, multiplication, multiplication tables, intervention, interest

The Secrets Of Successful Language Learners

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Appropriate learning strategies help explain the performance of successful language learner; likewise, inappropriate learning strategies aid in understanding the frequent failures of poor language learners - and even the occasional weakness of good ones. With that in mind, this study aims to identify which strategies that are highly used and rarely used by these successful L2 learners and 30 17-year-old participants chosen to take part in this study were those who consistently scored A in English subject in every examination for the past two years of schooling. SILL Version 7.0 for Speakers of Other Languages Learning English created by R.L Oxford (1989) was used to obtain the data and statistical analysis was used to identify any significant variation in the mean of the frequency of use of the six categories of learning strategies proposed by Oxford (1990). Based on the obtained and analysed data, metacognitive was identified as the highly used strategy while memory was known to be the least used strategy by these successful language learners. This research provides evidence of the importance of language learning strategies which could benefit L2 learners,

as well as teachers who can utilise such information to make learning more successful in the classroom. As teachers, the strategies that we opt to make use of can affect not only our students' achievement, but also the successes or failures of our school. In consequence, it is imperative to carefully consider the possibilities of language learning strategies in aiding those achievement.

Keywords: Successful Language Learners, Language Learning Strategies, English as a Second Language

Presenting Verbs-to-be to Extremely Weak Students: Tabulated Form vs Decision Tree Form – Which Is More Effective, Which Is More Preferable to the Students?

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The study was conducted to determine the most effective form as well as the most preferred form, either tabulated or decision tree, for presenting the verbs-to-be “am”, “is”, “are”, “was” and “were” in the teaching of the verbs-to-be to very weak students. The samples for the study were 16 5D and 5E students. Initially, the students were taught the verbs-to-be using a table by Teacher A. Test 1 was conducted to determine the students' understanding of the rules. Later, Teacher B taught the students to use a decision tree and they then attempted Test 2, which used the same set of questions. The same material was used for both tests to address the issue of reliability. A t-test was conducted on the results from the two tests to see whether there is any significant difference post-treatment. A structured interview was conducted to determine which form of presentation was easier for the students to understand and use. The mean for Test 2 was higher and based on the results from the t-test, there was a significant difference as $p=0.04$. Moreover, based on the findings from the interview, 14 out of the 16 students found that the decision tree made it easier for them to answer the 22 questions.

Revealing The Secrets Of Good Language Learners: What Are Their Strategies?

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One of the attributes needed by every learner to be globally competitive is to be equally competent in Bahasa Malaysia and English as reflected in the Malaysian Education Blueprint 2013-2025. Unfortunately, there are many obstacles faced by primary ESL teachers in helping the learners to be competent in English. Teachers faced difficulty in identifying the causes for the gap among the learners. To reduce the gap, a study on Language Learning Strategies (LLS) was carried out. This study aims to identify the most frequently used LLS by the primary school good language learners. A survey was used and a set of questionnaire was given to the learners in order to collect data about their preferences of LLS. Data were collected from a sample of 30 good ESL learners from a sub-urban primary school in Semporna, Sabah. The findings indicated that the most preferred LLS is cognitive strategy and the least preferred is memory strategy. The study also showed that the good language learners did not apply specific

strategy for specific skill. The findings have significant implications on ESL teachers and for teacher trainees in order to expose more LLS to the learners and to encourage them to apply it.

Keywords: English as a second language, good language learners, language learning strategies

Gaya Belajar Murid Pedalaman Bagi Mata Pelajaran Pendidikan Jasmani

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This study aims to assess the learning styles in Physical Education among primary school children in rural areas. The design study is based on the Reid's Learning Model (1987). The study will review the learning style in Physical Education such as visual, tactile, auditory, group, kinesthetic and alone. The selected schools are primary schools in rural areas which were randomly selected in Niah Zone at Miri. The sample consisted 40 students which were 20 boys and 20 girls from Year Four, Year Five and Year Six. This study used a questionnaire that has been modified and adapted from questionnaires completed by Reid (1984). The results of this study will be able to identify the learning style and the relevance of gender to the dominant learning styles among primary school children in rural areas of Sarawak.

Keywords: dominant learning styles, gender, physical education

Penggunaan Modul Pembelajaran Koperatif Dalam Meningkatkan Prestasi Mata Pelajaran Pendidikan Kesihatan (Use Of Cooperative Learning Module In Improving Health Education Performance)

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The research was conducted to investigate the use of cooperative learning modules using the playing and learning method in improving the performance in Health Education subject among the primary school. Experimental studies used in this research. The sample for this research consisted of 60 Year Four students from Sekolah Kebangsaan Saint Joseph Miri. The students are divided into two groups, there are control group and experimental group. Both groups were given different treatment methods, where of the control group is using conventional methods, while the experimental group using the cooperative learning methods. The research used pre-test and post-test instrument. The difference in scores between the two groups pre-test and post-test were tested using frequency scores. The results are showed there a no significant differences in post-test for different learning methods are given to the two groups of students, while in the pre-test, there were no significant differences for both groups were at the same cognitive level and not provide any method of treatment. Therefore, cooperative learning through playing and learning method more improved the achievement scores of students in Health Education subject compared to using conventional methods.

Keywords: Cooperative Learning Module, Playing and Learning Method, Health Education

Connotation in Learning Vocabulary: A Survey of Students' Perceptions

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Vocabulary is the centre of learning a new language thus the lack of adequate vocabulary knowledge is a serious obstacle for any language learner to master a target language. Without sufficient vocabulary one will have difficulty in expressing oneself or understanding others. Despite the vast research on using connotation in teaching and learning vocabulary not much is known about it in rural secondary school. Specifically, the present study aims to look into rural students' perceptions toward the use of connotation which require the learners to respond to a set of questionnaire using the 1-4 Likert scale instrument. Analysis showed that learners indicated positive perceptions toward using connotation in learning vocabulary. The findings from the study could provide teachers especially those who are teaching in rural schools insights on vocabulary teaching strategy.

Keywords : vocabulary, connotation, perceptions

Using Foldables in Learning Literature

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In literature classroom, students often encounter problems in reading and understanding the assigned literary texts in the literature component. Learning literature is boring for many students and leads to anxiety which halt the learning process. Thus, a study on different tools to help students' literature learning is an alternative. This study was conducted to investigate students' perception and attitude towards the use of foldables in learning literature. A total of 28 students participated in this study responded to a Four-Likert scale questionnaire consisting of their perceptions and attitudes. The researcher observed how the respondents had reacted towards the use of foldables. A descriptive statistic using frequency is used in the data analysis. The result shows that, the respondents reacted positively towards the use of foldables in learning literature. The findings from the study could help teachers to improvise teaching and learning for literature in classroom.

Keywords : foldables, perceptions, attitudes

Students' Perception and Attitude towards Diary Writing To Enhance Writing Skill

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English has been taught as the second language in all Malaysian schools. It is important for the students to acquire the four skills which are reading, listening, speaking and writing in order to be proficient in the language. However, students find that writing is the most difficult skill to master and acquire. Thus, there is a need of a study to facilitate students in writing skill. The study aims to investigate

students' perception and attitudes toward the use of diary as a writing tool to enhance writing skill. The participants of this study were 26 students of Form 4. Data were collected through questionnaire survey related to their perception and attitude on the implementation of diary writing activity. Results suggested that the participants have positive perceptions and attitude in using diary to enhance writing skill and kept them motivated. The researchers believe that writing a diary is very useful for students.

Keywords: writing, diary writing, perception, attitude

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