

ID: 01

Using Phonics and International Phonetic Alphabet (IPA) in Teaching Reading to SJK(C) Students

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Successful reading requires words enunciation, which Chinese vernacular schools students, SJK(C) find somewhat difficult to do. Although SJK(C) students have been trained to read Bahasa Malaysia using the 'suku kata', the strategy cannot be applied in reading in English as English words lack the letter-sound spelling system, making it difficult for students to enunciate correctly. Their reading success is further challenged by the limited time allocated each week for the learning and teaching of English reading skills. This study thus aimed at investigating the influence of synthetic phonics and analytic phonics with the IPA transcription on primary students' reading fluency and reading comprehension. The synthetic phonics stresses on isolated letter-sound correspondence, while the analytic phonics stresses on onset-rimes. 20 students forming an experimental group and 19 students forming a control group were recruited from a SJK(C) school in Nusajaya, Malaysia. The experimental group was initially subjected to synthetic phonics. This was then followed by the group being subjected to analytic phonics. The use of synthetic phonics followed by analytic phonics is termed as balanced phonics. Data were analysed from three tests administered to measure the students' word recognition, reading fluency and reading comprehension performance. The statistical analyses involved a pre-test, a mid-test (after the synthetic phonics reading intervention) and a post-test (after the balanced phonics with IPA transcription reading intervention). It was found that the analytic phonics and IPA transcription enhanced the students' word recognition and reading fluency performance in comparison to the synthetic phonics alone. Students' reading fluency enhanced through the synthetic phonics intervention and word recognition ability enhanced through the balanced phonics with IPA transcription intervention were found to have a positive influence on the students' reading comprehension.

Keywords: Reading, Phonics, Fluency, Word Recognition, Comprehension

ID: 02

Malaysian School Students' Math Anxiety: Application of Rasch Measurement Model

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Math anxiety is an affective psychological variable that could affect the life of students significantly. In Malaysia, math anxiety is one of the factors influencing mathematics performance especially among high school students. Addressing math anxiety issue in education therefore is a necessary effort. However, lack of previous study investigate the indicators of math anxiety specifically. Thus, this study aims to identify students' math anxiety level and the factors that indicate students' math anxiety based on the Parkinsons' Four Factor Theory. A total of 111 secondary school students were selected by using stratified sampling to become the respondents in this study. The respondents were asked to complete the Math Anxiety Scale which measure students' appraisal, arousal, action tendencies and also face expression throughout the process and situations in learning math. All the collected data were analysed by using measure rank analysis by applying Rasch Measurement Model to identify the rank of the four indicators of math anxiety. Results show that students experience relatively moderate level of anxiety in learning math. Besides, within the four indicators of math anxiety, appraisal towards external stimulus rank the highest while action tendencies rank the lowest. The results of this study have great implications for teacher in identifying and dealing with students experiencing anxiety in learning mathematics.

Keywords: Math anxiety, Appraisal, Action Tendencies, Arousal, Face Expression

ID: 03

Problems Faced by Down Syndrome Children in Mathematics Class

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Down Syndrome is a genetic disorder where the existence of parts or all 21 chromosome. Chromosomes are specific fibers that exist in human cell that consists of a person's attributes. Variety of traits can be seen or identified in these children. One obvious physical attribute is shape of the face that similar to down syndrome children. These children also face mental disorder which is having abnormal kind of thinking. There are also studies being carried out involved less fortunate children. However, there are fewer studies shown the cognitive aspect of the children. This study is done to investigate the perception, experience and teaching methods for these down syndrome children especially in teaching Mathematics.

Keywords : Perception, Experience and Teaching Method, Down Syndrome, Mathematics

ID: 04

Preliminary Study of Creative Problem Solving on Open-Ended Mathematical Problem

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This paper aims to find out how the engineering undergraduates can use their creativity and strategies to solve open-ended mathematical problems. This paper also provides an insight about the impacts of using Creative Problem Solving strategies towards solving open-ended mathematical problem. The study was carried out in a local university as to understand how the engineering undergraduates solve open-ended mathematical problems. Five second year mechanical engineering undergraduate students were selected to participate in this study based on their willingness to take part in the research. They have to solve open-ended mathematical problem collaboratively by using pen, paper and also calculators. Intervention of Creative Problem Solving strategies was also used to enable them to solve the problem. The students were interviewed individually after solving the problem. The results indicated that students can use many different ways and they can come out with different strategies to solve open-ended mathematical problems.

Keywords: Creative Problem Solving, Open-ended Mathematical Problem

ID: 05

**Study of Machine Translation to Build Pattern-based Model
for Vietnamese – Cham**

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Cham script appeared in 4th century on stone stele in Tra Kieu Vietnam. It was considered as the first language in South East Asia. Due to many social and historical reasons, Cham language is faced with the risk of deformation. In this research, we found that Cham grammar structure is still unclear for the Vietnamese Cham machine translation. Hence, in order to preserve Cham language, we propose a Pattern-based model to translate Vietnamese into Cham language with the size of the bilingual dictionary is approximately 4,500 sentences, bilingual corpus 2500 pairs of Vietnam Cham sentence, 1950 pairs of translation sample, 324 function words, 768 vocabulary, 57 prepositions, and all are stored in text file. Initially is tested based on the basis of bilingual corpus, bilingual dictionaries and translation sample with limited resources, the results achieved were relatively satisfying and high quality if the input sentence matches the translation pattern and this translation pattern is correct. However, bilingual corpus, bilingual dictionaries and translation sample are usually made manually. For this reason, there are many costs in making a pattern-based for machine translation system. In this experiment, we obtained good results. Hence, construction pattern-based machine translation for Vietnamese to Cham is an essential research and development in order to preserve Cham language.

Keywords: Cham Translation; Viet Cham Translation; Cham Machine Translation

ID: 09

**Tahap Penggunaan Pengajaran Dialogik Guru Cemerlang Fizik
Tingkatan Empat**

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Kajian-kajian lepas menunjukkan bahawa pengajaran dialogik yang melibatkan proses perbincangan dan penerokaan idea antara guru dan pelajar secara aktif, mampu meningkatkan kemahiran berfikir aras tinggi (KBAT) pelajar. Walaupun begitu, pembelajaran secara hafalan serta sehalu yang bersifat monologik masih lagi diamalkan oleh guru-guru di sekolah. Kajian awal ini bertujuan untuk mengenalpasti tahap penggunaan pengajaran dialogik guru cemerlang (GC) fizik dalam topik tingkatan empat iaitu Momentum dan Impuls. Strategi kajian kes digunakan melalui pendekatan gabungan kualitatif serta kuantitatif. Peserta kajian bagi kajian awal ini adalah terdiri daripada GC fizik di daerah Johor Bahru. Data kualitatif dikumpul menggunakan protokol pemerhatian serta Penilaian Kendiri Tahap Penggunaan Pengajaran Dialogik (PKTPPD). Data dianalisis menggunakan kaedah analisis tematik dalam menentukan tahap penggunaan pengajaran dialogik guru tersebut. Data kuantitatif yang diperolehi daripada PKTPPD pula dianalisis menggunakan kaedah statistik deskriptif. Hasil kajian awal mendapati bahawa tahap penggunaan pengajaran dialogik guru adalah pada tahap rendah (seorang) dan sederhana (seorang). Adalah dicadangkan bahawa guru perlu menilai semula pendekatan pengajaran yang digunakan dalam proses pengajaran dan pembelajaran di samping diberi pendedahan sewajarnya oleh pihak berwajib mengenai konsep pendekatan pengajaran dialogik dalam usaha meningkatkan tahap penggunaan pengajaran dialogik guru cemerlang di sekolah.

Kata Kunci: Pengajaran Dialogik, Guru Cemerlang, Fizik

ID: 10

The Influence of The Heads of School's Leadership Approaches Towards Effective Management At MARA Institutions of Education (MloE) In Malacca, Malaysia

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Leading a school is similar as leading any other organization. As an effective leader, the head of the school is expected to have a deep knowledge of the school structure in order to fulfill the needs of the schools' people and gained their respect which then will enable them to be united under political negotiation and social acts. This study performed using the concept of leadership frames by Bolman & Deal (1991) and the concept of effective management based on the MARA Education Standard, MEQS (2009 & 2015). The feedback of this study is from the 215 participants from 7 of MARA Institutions of Educations (MloE) in Malacca, Malaysia. The main aim of the study is to determine which of the leadership approach (structural, human resource, politic and symbolic) practiced by the heads of school that mostly contribute towards the effective management of the MloE. The quantitative data for this study was collected by using the Leadership Orientation Questionnaire by Bolman & Deal (1991) and the MARA Quality System, MQS (2015). From the data analysis, the structural frame ($\mu = 4.01$) is the most dominant leadership approach (frame) practiced by the heads of school in MARA Institutions of Education (MloE). And furthermore, the study found that, none of the frames did contribute towards the effective management in MARA Institutions of Education (MloE). Further study is needed to provide future leaders with a better understanding towards their own strength and weaknesses in order to improve their leadership skills in managing their schools/ educational institutions.

Keywords: Leadership Approaches, Effective Management, MARA

ID: 11

Meningkatkan Kemahiran Menolak Nombor Perpuluhan Daripada Nombor Bulat Dalam Lingkungan Sepuluh Melalui Kaedah "Genius Subtraction"

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Kajian ini dijalankan untuk meningkatkan kemahiran menolak nombor perpuluhan daripada nombor bulat dalam lingkungan sepuluh serta meningkatkan keyakinan diri murid – murid pemulihan untuk menyelesaikan soalan berkaitan kemahiran tersebut melalui kaedah "Genius Subtraction". Responden dalam kajian ini terdiri daripada 5 orang murid pemulihan dari tahun lima di sebuah sekolah sekitar daerah Rembau. Kajian ini dijalankan selama 3 bulan. Data dikumpulkan melalui ujian pra dan pasca, pemerhatian, temu bual dan analisis dokumen. Hasil analisis data didapati bahawa semua responden menunjukkan peningkatan markah yang ketara iaitu daripada 0 % dalam ujian pra meningkat ke purata 92 % dalam ujian pasca I dan seterusnya ke 100 % dalam ujian pasca II hingga IV yang dijalankan. Semua responden menguasai kemahiran tersebut dengan berjaya. Keputusan kajian menunjukkan bahawa "Genius Subtraction" sangat berkesan dalam membantu murid pemulihan menguasai kemahiran menolak nombor perpuluhan daripada nombor bulat dalam lingkungan sepuluh. Kaedah "Genius Subtraction" boleh digunakan sebagai penawar kepada murid pemulihan yang mengalami masalah dalam kemahiran tersebut.

Kata Kunci: Pemulihan , Kemahiran Menolak , Genius Subtraction

ID: 12

Pembelajaran Inkuiri-Kolaboratif dalam Persekitaran Teknologi Web 2.0 dan Potensinya Terhadap Tahap Kemahiran Penghujahan Saintifik Pelajar dalam Pembelajaran Sains

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Penguasaan ilmu sains sangat berkait dengan kebolehan pelajar dalam membuat penghujahan saintifik. Ia perlu dikuasai oleh pelajar bagi meningkatkan kefahaman mereka dalam pembelajaran Sains, (Lee Ling Heng dan Johari Surif (2013). Penghujahan sintifik boleh ditingkatkan dengan mendidik pelajar untuk melibatkan diri dalam bertanya dan menjawab soalan-soalan sains yang mengikut aras. Bagi menggalakkan proses ini berlaku di kalangan pelajar, guru perlu menukar kaedah pengajaran dan pembelajaran sains. Pendekatan pembelajaran inkuiri dan pembelajaran kolaboratif misalnya dikatakan mampu membantu pelajar membina pengetahuan yang lebih bermakna jika dibandingkan dengan pendekatan pembelajaran secara konvensional serta pembelajaran yang dijalankan secara individu (Rafiza Abdul Razak, 2013). Kaedah ini sesuai digunakan dalam membantu pelajar membina penghujahan saintifik. Namun begitu, kekangan waktu pembelajaran di sekolah sering menghadkan masa interaksi antara guru dan pelajar. Oleh yang demikian, pengkaji bercadang untuk membangunkan persekitaran pembelajaran berasaskan teknologi Web 2.0 bagi pembelajaran Sains yang bertujuan untuk mengkaji potensinya sebagai satu alat memudahkan interaksi antara pelajar dan guru di luar waktu persekolahan. Antara skop kajian yang dicadangkan ialah untuk mengenalpasti tahap penghujahan saintifik sedia ada pelajar dalam pembelajaran Sains. Seterusnya menilai kesan strategi pembelajaran inkuiri-kolaboratif dalam persekitaran teknologi Web 2.0 untuk pembelajaran Sains terhadap tahap penghujahan saintifik pelajar. Proses bagaimana pelajar membentuk penghujahan saintifik dalam pembelajaran Sains dalam persekitaran inkuiri-kolaboratif berasaskan teknologi Web 2.0 yang digunakan turut akan dikaji.

Kata Kunci : Pembelajaran Inkuiri-Kolaboratif, Teknologi Web 2.0, Penghujahan Saintifik

ID: 13

Teaching Attitudes of Chinese Independent High Schools' ESL Teachers

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Research shows that language teachers' positive attitudes towards the language will lead to positive classroom teaching practices which might contribute to successful learning and competence of the learners. In this vein, this paper specifically examines the extant English teaching attitudes of ESL teachers in Chinese independent high schools. Ten ESL teachers from five Chinese independent high schools located in three southern states of peninsular Malaysia are administered for this study. Mixed mode approach is used as methodology. The instruments are questionnaire, classroom observations and interviews. Findings indicate that teachers majored in TESL, including teachers aged 21-29 and 50 or above have more positive attitude towards English teaching. But there is no difference found between male and female teachers in terms of teaching attitude. Ninety percent of the teachers are convinced that communicative approach focused on group work is good and have positive attitude towards using it in daily teaching practices. However, teachers are at times hesitant towards innovative as well as communicative approach as grammar-based exam is highlighted. Most teachings are on the coverage of grammar-related syllabus and thus Teacher-fronted Time is dominant. Interactions in class are scarce only at moments when communicative, video-aided or task-based approach is employed. The success of English class is believed to depend on learners' motivation, participation, enjoyment, fun and interest generated in class, grammar translation coupled with communicative approach. Teacher respondents attribute the inherent problem in English teaching to learners' low proficiency of English, weak grammar knowledge, shyness, lack of interest, lack of motivation as well as the fact that 'the mastery of English is not a life and death thing in their community'. All teachers think that most difficulties faced by them can be overcome over time or change of mindset.

Keywords: English as a Second Language (ESL), Teaching English as a Second Language (TESL), Language Attitudes, Teacher-fronted Time, Student-student Interactions, Chinese Independent High School

ID: 14

Malaysian English Teachers' Attitudes Towards English Language Teaching

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English acts as a key factor when competing in the world of globalization and plays a vital role in the lives of Malaysians. In this regards, the role of English teachers is important because teaching English to ESL students is an important task and a noble teaching responsibility to empower and motivate the students to participate in the worldwide community and become active and competent users of English at the international level. Thus, the aim of this research was to determine the attitudes of Malaysian English teachers towards English language teaching. This research utilized a mixed-method approach. The respondents of this research were 39 primary school teachers from three different local primary schools. Quantitative results were collected via questionnaires which were subsequently used for choosing 6 respondents for the second phase of the research which involved interviews. The results of the research showed that Malaysian English teachers have positive attitudes towards their profession and they should be given incentives such as opportunities to participate in more English teacher training programs in order to improve themselves.

Keywords: Attitudes, Malaysian English Teacher, English Teaching

ID: 15

Dalam Kalangan Pensyarah Sastera Iktisas Kolej Matrikulasi Teknikal Johor, Pontian

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Kajian ini dijalankan untuk mengenal pasti tahap pengetahuan, kemahiran, sikap dan masalah penggunaan Teknologi Maklumat dan Komunikasi (ICT) dalam kalangan pensyarah di bidang Sastera Iktisas di Kolej Matrikulasi Teknikal Johor. Sampel kajian seramai 25 orang yang mewakili keseluruhan populasi terlibat dalam penyelidikan ini. Data prima yang dikumpul dengan menggunakan instrumentasi soal selidik dan dianalisis dengan komputer menggunakan perisian "Statistical Package for the Sosial Sciences" (SPSS 20.0). Analisis dibuat secara kaedah statistik deskriptif iaitu dalam bentuk kekerapan dan peratus. Hasil daripada penyelidikan ini menunjukkan tahap pengetahuan ICT dalam kalangan pensyarah Sastera Iktisas adalah agak tinggi dalam proses pengajaran dan pembelajaran atau kuliah, tetapi tahap kemahiran ICT di kalangan pensyarah sastera iktisas pula adalah sederhana. Pensyarah juga mempunyai sikap yang positif dalam penggunaan ICT semasa proses pengajaran dan pembelajaran. Hasil kajian menunjukkan pensyarah-pensyarah tidak mengalami masalah yang serius untuk menggunakan ICT dalam pengajaran mereka. Dapatan ini penting kepada pihak pentadbiran Kolej Matrikulasi Teknikal Johor khususnya Jabatan Sastera Iktisas di Bahagian Matrikulasi dan Kementerian Pendidikan Malaysia (KPM) sendiri dalam membuat perancangan strategik aspek pembangunan sumber manusia khususnya latihan dan aspek pembangunan prasarana di semua kolej-kolej Matrikulasi termasuk kemudahan perkakasan komputer dan capaian internet yang stabil.

Katakunci : Teknologi maklumat dan komunikasi (ICT), Pensyarah Sastera Iktisas

ID: 17

Supporting and Improving Reflective Practice among Pre-service Teachers Through WhatsApp

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The purpose of this study aimed to investigate the use of WhatsApp, an instant messaging application tool, to improve and support pre-service teachers' reflective practice during their teaching practice. Freeman (2002) suggests that reflective practice must become a central pillar in teacher education. Pre-service teachers should be reflective by thinking of their knowledge and methodology learnt in the college and applying and putting them into practice in the classroom. However, they find it difficult to link theory to practice and they need the support and help from others when they start teaching in school. Therefore, the tool of WhatsApp is used to help these teachers to bridge theory and practice during their teaching practice. This case study involved eight participants who taught English language for twelve months in school. An assessment rubric for classroom observation was analysed descriptively for quantitative data while the weekly reflective journals, responses on the WhatsApp prompts and the focus group interviews were analysed thematically for qualitative data. This paper explores the support given by the supervisor during the teaching practice can help to improve the pre-service teachers' teaching and learning experiences in the classroom.

Keywords: WhatsApp, Reflective Practice, Practicum

ID: 18

Characteristic of Mobile Device and Factors of Develop Mobile Application in Education

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Widespread ownership of mobile phone and tablet had created a new trend in education named Mobile Learning (M-Learning). Due to the functionality of mobile phone and tablet, mobile device can link several societies together and the learning environment is no longer restricted in the classroom with the help of technology. Thus, this study discusses the issue of implementation mobile device and mobile learning in education. The issues that discussed in this study are elicited from several article reviews based on the thematic analysis. There are two factor that discussed which are usability and technical for mobile. These issues are important to consider as the factor to develop a mobile application in education for teaching and learning purpose. A well-developed mobile application can influence the teaching and learning environment among the teachers and students.

Keywords: Mobile Learning, Mobile Application, Issues, Usability, Technical, Development

ID: 19

Meningkatkan Kemahiran Membaca Perkataan KVKV dengan Menggunakan Persembahan Power Point Interaktif

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Kemahiran 3M iaitu membaca, menulis dan mengira merupakan suatu keperluan asas di negara ini. Kemahiran membaca dan menulis merupakan tunjang utama dalam menguasai bahasa Melayu. Tanpa kemahiran-kemahiran ini, penguasaan bahasa Melayu tidak akan dicapai dengan jayanya. Kajian ini bertujuan untuk meningkatkan penguasaan membaca perkataan KVKV dalam kalangan murid pemulihan dengan menggunakan Power Point Interaktif. Kajian ini melibatkan tiga orang murid Tahun 3 dari sebuah sekolah di Rantau, Negeri Sembilan. Kutipan data dalam kajian ini dilaksanakan melalui ujian pra dan ujian pasca, analisis dokumen, temu bual bersama guru pemulihan, dan pemerhatian terhadap pelaksanaan sesi pengajaran dan pembelajaran. Dapatan ujian pasca menunjukkan peningkatan prestasi murid dalam menguasai kemahiran membaca perkataan KVKV. Secara rumusannya, kaedah Power Point Interaktif berjaya meningkatkan kemahiran KVKV dalam kalangan murid.

Kata Kunci: Murid Pemulihan, *Power Point* Interaktif, Perkataan KVKV

ID: 20

Pembangunan Strategi Pembelajaran Geometri Tiga Dimensi: Pelan dan Dongakan Melalui *Sketchup Make*

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Terdapat cukup bukti yang menunjukkan bahawa kemahiran visual spatial dan tahap pemikiran geometri pelajar tidak diberi penekanan yang mencukupi dalam pengajaran dan pembelajaran geometri. Permasalahan ini telah menyebabkan kesukaran pembelajaran geometri di kalangan pelajar. Justeru itu, satu strategi pembelajaran yang dinamakan Strategi Pembelajaran Pelan 3 Dimensi melalui *SketchUp Make* (SPPD-SUM) telah direka dan dibangunkan dengan harapan dapat membantu pelajar untuk meningkatkan kemahiran visual spatial dan pemikiran geometri dalam pembelajaran 3 dimensi geometri bagi tajuk Pelan dan Dongakan. Domain kemahiran visual spatial telah diterapkan ke dalam tahap pemikiran geometri dengan teliti melalui aktiviti pembelajaran yang dibina dan disusun secara spesifik. Susunan ini adalah penting untuk memastikan pelajar dapat mencapai perubahan kognitif yang lebih baik dalam kemahiran visual spatial dengan berkomunikasi dan berinteraksi secara fizikal dan sosial mengikut model hierarki pemikiran geometri van Hiele. Aktiviti pembelajaran telah direka dengan teliti agar selaras dengan setiap tahap pemikiran geometri dan fasa pembelajaran tertentu sebagaimana yang telah ditetapkan oleh van Hiele. SPPD-SUM dibina berdasarkan ciri istimewa perisian dinamik *SketchUp Make* bagi memudahkan peningkatan kemahiran visual spatial dan pemikiran geometri semasa proses pembelajaran. Keseluruhan proses pembangunan SPPD-SUM berlandaskan lima peringkat kitaran model reka bentuk pengajaran ADDIE. Kertas kerja ini hanya melaporkan dua peringkat iaitu reka bentuk dan pembangunan SPPD-SUM.

Kata Kunci: Kemahiran visual spatial, Tahap Pemikiran Geometri Van Hiele, *SketchUp Make*.

ID: 21

Penggunaan Kaedah Inkuiri Penemuan dalam Kalangan Guru-Guru Sejarah Sekolah Menengah

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Kajian ini dijalankan bertujuan untuk meninjau penggunaan kaedah inkuiri penemuan dalam kalangan guru-guru sejarah di sebuah sekolah menengah bahagian Bintulu. Tiga aspek telah dikaji bagi menjawab persoalan kajian iaitu tahap pengetahuan, sikap dan kemahiran guru-guru sejarah dalam penggunaan kaedah inkuiri penemuan di sekolah menengah. Reka bentuk penyelidikan yang digunakan ialah penyelidikan kuantitatif jenis kajian tinjauan yang melibatkan 10 orang guru sejarah. Instrumen yang digunakan adalah soal selidik dan data dianalisis dengan menggunakan teknik analisis kandungan. Antara dapatan kajian menunjukkan bahawa tahap pengetahuan, sikap dan kemahiran guru sejarah pada tahap yang sederhana dalam penggunaan kaedah inkuiri penemuan dalam pengajaran dan pembelajaran. Guru-guru sejarah kurang yakin dalam melaksanakan kaedah inkuiri kerana kurang mahir dalam teknik penyediaan berasaskan inkuiri. Kajian ini mendapati beberapa faktor menjadi penghalang dalam penggunaan kaedah inkuiri penemuan seperti kekangan masa, kekurangan kemudahan bahan bantu mengajar dan sikap pelajar. Beberapa cadangan telah dikemukakan kepada guru-guru sejarah bagi memantapkan lagi penggunaan kaedah inkuiri penemuan dalam pengajaran dan pembelajaran.

Kata Kunci: Kaedah Inkuiri , Guru sejarah

ID: 25

Social Support during Post-Natal Stage: Impact on Maternal Depression and Suicidal Thoughts

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The main purpose of this research is to examine the presence of social support during post-natal stage and its influence on maternal depression and suicidal thought among women in Johor State, Malaysia. It is a quantitative study using survey method with random sampling. A total of N=50 post-natal women from Klinik Kesihatan Jalan Mengipol (KKM), Johor, Malaysia has completed two sets of questionnaire named EPDS and SSQ-6. Result indicate a significant negative correlation between the social support and maternal depression. High level of suicidal thoughts and significant relationship between maternal depression and socio-economic status. As conclusion maternal depression indirectly develops self-harming behaviours or suicidal thoughts during post-natal stage and social support act as a remedy in minimizing maternal depression and suicidal thoughts. Moreover current research may benefits to the Kementerian Kesihatan Malaysia in recognising women's actual conditions during post-natal stage and its will be very beneficial if the Kementerian Kesihatan could come out with some awareness programs, counselling session and psychotherapy in treating women with depression and this will be helpful in minimize their suicidal thoughts.

Key words: Social support, Maternal Depression, Suicidal Thoughts

ID: 26

Meta-Analysis: Learning Approaches in Mobile Learning Studies

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The ubiquitous use of mobile devices and the evolution of mobile device technologies have led to a growing interest in these devices for education purposed. Through these technologies, mobile learning can be integrated in teaching and learning process and can be conducted in anywhere and anytime. This meta-analysis paper discusses about various learning approaches, research purposes, and findings within year of 2013 to 2015. Findings from this paper may help other researchers to consider learning approaches and propose suitable solution for future mobile learning studies.

Keywords: Learning Approach; Mobile Learning; Meta-Analysis

ID: 27

Facebook as a Platform of Social Interactions for Meaningful Learning

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Undeniably, Facebook has become a significant part of 21st century students' life. To implement learning through online social learning environment like Facebook, interactions between instructors and students play a major role. Indeed, interactions are key elements that measures students learning process especially in online learning medium. Many researches have proven that this social networking site is not just about promoting a social interaction but it has high potential to be use for teaching and learning interactions. However, interactions that occur in this site without proper manner will lead to no or little intellectual growth of students. This is because participants of this site may prone to discuss unrelated topics. Therefore, the goal this study is to conceptualize social interactions in Facebook as a platform to enhance meaningful learning.

Keywords: Meaningful learning, Social Interaction, Facebook

ID: 28

Mathematical Competency for Engineering Students to Meet Global Workforce Demand

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The acquirement of mathematical competence among engineering students can facilitate them in learning of various courses in their programs. Calculus is the most fundamental subjects known as harder to understand especially in understanding the concept. Acknowledging about what is meant by mathematical competencies and the role of the eight mathematical competencies can assist lecturers in preparing their teaching to achieve the intended mathematical competence. This paper discusses the mathematical competency for engineering students to meet the requirement of the current and future global workforce. Some issues will be highlighted such as i) What do we mean by mathematical competencies? ii) What are mathematical competencies for engineering students? iii) What are the required mathematical competencies for engineers to meet global demand at the workplace? And iv) How using aids and tools enhance mathematical competency in supporting the engineering students' learning? This paper also focussing on the using of technology such as e-learning as tools to enhance students' mathematical competencies in learning of mathematics. A framework from the used methods of e-learning will be discussed. Hopefully this paper will not only create awareness but also drive stakeholders to examine their curriculum to ensure engineering graduates can competitively market themselves locally and abroad.

Keywords: Engineering Student, Global Workforce Demand, Mathematical Competencies

ID: 30

Developing Highly Skill Human Resource in a Unique Environment: Characteristic of Vocational Instructor in Prison

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The objectives of this article is to explore the characteristics of vocational instructors under Malaysian Prison Department. A qualitative study of semistructured interviews with four representatives from Pride (Prison Department) and one expert in educational field have been interviewed. They are a Prison Assistance Superintendent (Department of Professional Development), Prison Superintendent (Vocational & Industrial Section), Vocational Training Officer (Vocational & Industrial Section), Assistance of Vocational Training Officer (Vocational & Industrial Section), and a Professor of INSTEAD, from UIAM. Result from the interview shows that a few elements contributed to the good characteristic of vocational instructor in prison. However God consciousness play a vital role in which it affects the whole individual in term of performance and responsibilities in his or her working environment. Therefore, improvement targeted is by developing a module to assist instructors based on the findings.

Keywords: Characteristic, Vocational Instructor, Prison

ID: 31

Kemahiran Hayat (*Life Skills*) melalui Sukan Sekolah (1M1S) dalam Kalangan Murid di Malaysia: Kertas Cadangan

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Matlamat dalam Falsafah Pendidikan Kebangsaan ialah melahirkan modal insan yang seimbang dari segi jasmani, emosi, rohani dan intelek. Dalam kajian lepas mendapati sekolah merupakan persekitaran yang sesuai dalam pembangunan kemahiran hayat (*Life Skills*). Di mana, sukan sekolah (1M1S) merupakan konteks yang boleh menjadi kenderaan dalam pembangunan kemahiran ini. Sehubungan itu, tujuan dalam kertas cadangan ini untuk mengkaji bagaimana sukan sekolah dalam pelaksanaan Dasar Satu Murid Satu Sukan (1M1S) boleh dirangka sebagai konteks dalam memupuk pembangunan kemahiran hayat. Di peringkat awal kertas cadangan ini, pengkaji berusaha mengetengahkan beberapa isu dan pandangan berkaitan pembangunan kemahiran hayat melalui sukan sekolah (1M1S). Selain itu, beberapa format kajian seperti pernyataan masalah, tujuan dan objektif kajian, skop kajian dan kerangka kajian juga dijelaskan.

Kata Kunci: Kemahiran Hayat; Sukan Sekolah; Dasar 1M1S

ID: 32

Meningkatkan Kemahiran Penaakulan Matematik Berfokuskan Metakognitif dalam Kalangan Pelajar

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Kemahiran penaakulan matematik adalah merupakan salah satu elemen utama dalam kemahiran berfikir aras tinggi yang diberi penekanan utama dalam pembelajaran matematik di Malaysia. Terdapat banyak bukti berasaskan kajian yang mendapati bahawa pelajar Malaysia cekap dalam mengaplikasi prosedur matematik standard (misalnya aritmetik) tetapi lemah dalam membuat penaakulan matematik. Beberapa kajian lain pula mendapati kelemahan penaakulan matematik adalah salah satu punca utama yang menyebabkan pelajar mengalami kesukaran dalam mempelajari matematik bersifat analitik (misalnya Matematik Tambahan). Beberapa teori kognitif pembelajaran matematik mencadangkan bahawa terdapat perkaitan tertentu antara kemahiran penaakulan matematik ini berbanding kemahiran metakognitif individu semasa mempelajari atau membina sesesatu konsep matematik. Artikel ini membincangkan kepentingan penguasaan kemahiran penaakulan matematik di kalangan pelajar dalam pembelajaran matematik bersifat analitik pelajar serta konsep strategi pembelajaran berfokuskan kemahiran metakognitif dalam membantu pelajar mempertingkatkan kemahiran penaakulan.

Kata kunci: Penaakulan Matematik, Kemahiran Metakognitif, Kemahiran Berfikir Aras Tinggi (KBAT)

ID: 33

The Relationship between Mental Health and Homesickness among International Students in Malaysian Public Universities

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The aim of this study was to check the relationship between international students' mental health and homesickness in Malaysian public universities. The sample consisted of 442 male and female international students. In order to collect information two questionnaires were used, The General Health Questionnaire (GHQ-28) developed by Goldberg in 1978 with 28 items to scale and the latest version of Homesickness Questionnaire (HQ) developed by Archer et al. (1998) with 25-items. The results showed that there were significant relationship between mental health subscales and the subscales of homesickness ($p < 0.05$). In general, findings indicate that the homesickness has a negative influence in individual mental health and increase mental disorders or threatening factors of individual mental health field among international postgraduate students in Malaysia. As a final point, the researcher developed the hierarchical guideline of mental health which classified from homesickness criteria among International postgraduate students in Malaysia.

Keywords: Mental Health, Homesickness, International Students, Hierarchical Guideline

ID: 35

Kesahan dan Kebolehpercayaan Instrumen Penilaian Kemahiran Proses Sains Guru Menggunakan Model Pengukuran Rasch

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Tujuan kajian adalah untuk menilai tahap Kemahiran Proses Sains (KPS) dalam kalangan guru sains. KPS terbahagi kepada dua bahagian iaitu kemahiran proses sains asas (KPSA) dan kemahiran proses sains bersepadu (KPSB). Kajian ini memfokuskan kepada KPSA iaitu memerhati, mengelas, mengukur dan menggunakan nombor, membuat inferens, meramal, berkomunikasi, serta menggunakan hubungan ruang dan masa. Instrumen Penilaian Kemahiran Proses Sains Guru (IPKPSG) mempunyai 28 item yang dibangunkan melalui proses pembinaan item, pengesanan pakar dan kajian rintis bagi mendapatkan pengesanan dan pekali kebolehpercayaan. Kesahan sesuatu instrumen merujuk kepada sejauh mana sesuatu instrumen itu mengukur perkara yang sepatutnya diukur. Menggunakan Model Pengukuran Rasch, kesahan bagi sesuatu soal selidik boleh dikenal pasti dengan merujuk kepada analisis output program untuk melihat koefisien kolerasi, peta item-individu, nilai ketaksepadanan item-individu, pengasingan item-individu, unidimensi, kesepadanan item-individu dan skala pemeringkatan. Kebolehpercayaan instrumen merujuk kepada setakat mana sesuatu instrumen mengukur secara konsisten perkara yang ingin diukur. Nilai kebolehpercayaan item dan kebolehpercayaan individu dikaji berdasarkan nilai indeks kebolehpercayaan item (Item Reliability) dan indeks kebolehpercayaan individu (Person Reliability). IPKPSG mempunyai nilai kebolehpercayaan item 0.94. Ini menunjukkan instrumen kajian mempunyai tahap kebolehpercayaan sangat tinggi dan amat sesuai digunakan. Nilai infit dan outfit berada pada julat 0.99 dan 1.06 dan berada dalam julat yang sesuai untuk mengukur konstruk.

Keywords: Kesahan; Kebolehpercayaan; Kemahiran Proses Sains

ID: 36

English Language Exit Test among Malaysian Graduates: An Analysis of the Test of English Communication Skills (TECS) Oral Examination Rubric

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Oral communication skill is one of the most essential workplace skills as employers believe that candidates who possess soft skills can benefit the company as a whole. In order to address the importance of assessing a student's ability to speak English once they graduate and enter the work force, Universiti Teknologi Malaysia (UTM) has developed an exit language test which is known as the Test of English Communication Skills (TECS). TECS is a compulsory test for all graduating students at UTM. The main aim of the TECS oral test is to evaluate the language proficiency level of graduating students entering the workplace. With a focus on the oral component of TECS, this study examined the workplace communication skills that are incorporated in the TECS oral test rubric. Previous research has shown that despite the various ways to assess oral communication, rubric has remained as one of the top assessment tools. Adopting a qualitative inductive approach, this study carried out a document analysis on the TECS oral test rubric which is the sole tool of assessment employed in the TECS oral assessment. The document analysis is based on a list of workplace communication skills adapted mainly from Tarone's taxonomy of communication strategies and Dornyei and Scott's taxonomy of communication strategies. Preliminary analysis suggests that several workplace communication strategies are included in the TECS rubrics. However, certain key workplace communication strategies were not acknowledged in the TECS oral test rubric. The findings of this study provide vital recommendation to further enhance the relevance of TECS oral rubric as a tool to assess students' ability to use English in the workplace context. The inclusion of more workplace communication skills in the rubric will result in improving the relevance of the TECS rubric.

Keywords: Test for English Communication Skills (TECS), Rubric, Workplace communication strategies

ID: 37

**Penilaian Kurikulum Bahasa Inggeris Berdasarkan Model
CIPP di Sekolah Menengah Atas Sulawesi Selatan,
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Kajian ini bertujuan menilai matlamat kurikulum bahasa Inggeris berdasarkan model CIPP iaitu Context, Input, Process, Product untuk mendapatkan maklumat dari tiap-tiap elemen yang dinilai. Hasil maklumat diperolehi daripada analisis kualitatif dan kuantitatif. Tinjauan dokumen silabus berisi matlamat kurikulum bahasa Inggeris yang hendak dicapai dan struktur kandungan kurikulum bahasa Inggeris disenaraikan dalam sukatan dan perancangan panduan pengajaran guru dalam kelas. Seterusnya maklumat yang disenaraikan dibuktikan melalui pemerhatian kelas. Dapatan hasil dari survey soal selidik, tinjauan dokumen, dan pemerhatian kelas melahirkan keputusan dari pelaksanaan proses. Penarikan sampel dilakukan secara acak bagi analisis kuantitatif seramai 30 guru Bahasa Inggeris dan pelajar 354. Manakala bagi pemerhatian kelas dilakukan sampel bertujuan kepada 9 guru berdasarkan pengalaman mengajar di SMA yang Mayoriti perempuan dengan purata tahap pendidikan mereka Sarjana muda dengan purata pengetahuan mengajar mereka pun masih tahap sederhana dengan nilai min 2.41 dan sisihan piawai 0.226. Oleh itu hasil pencapaian markah pelajar tidak mencapai matlamat yang disenaraikan dalam kurikulum. Hal ini disokong oleh markah purata kemahiran pelajar pada tahap mendengar 60, bertutur, 67, membaca 76, dan menulis 73. Dapatan ini membuktikan bahawa purata kemahiran pelajar dalam mata pelajaran bahasa Inggeris berada pada tahap sederhana sahaja, belum mencapai aspek kebahasaan yang produktif. Oleh itu penilaian merupakan bahagian penting dalam meningkatkan kualiti dan mutu lulusan pelajar baik dalam proses mahupun hasil terutamanya pencapaian matlamat empat kemahiran dalam mata pelajaran bahasa Inggeris dengan menggalakkan pelatihan mengajar bagi guru bahasa Inggeris SMA di Kabupaten Barru Sulawesi Selatan Indonesia.

Kata Kunci: Kurikulum, Penilaian, Bahasa Inggeris, Belajar, Mengajar

ID: 38

**ROLES OF EPISTEMOLOGY IN EDUCATION: DO TEACHERS UNDERSTANDING THEY ARE EXPECTED
TO TEACH?**

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Malaysia Education Blueprint (2013-2015) has emphasised the development of strong content knowledge in science subject with the objective to ensure that its students are being equipped with the knowledge and skills required for success in life and global recognition with knowledge and higher-order thinking skills. In order to achieve this aspiration an effort to produce students who are able to think scientifically, have high scientific literacy or science literacy needs to be disclosed. Two major questions arise to be answer; What is the concern of the epistemology? Why epistemology is important for science education? The studies state that science literacy can be achieved better through epistemology. Therefore it also related with understanding of scientific concepts, improve the quality of teaching and improve a better explanation to the issues of science to students, enhance the ability of students to understand science concepts, raise the level of scientific literacy and play an important role in the teaching process. The study also review the term of epistemology orientation that use in research and epistemology instruments and level of epistemology use in epistemology research. This study know far better understanding of the structure of science teachers to ensure content knowledge submitted stimulate students to think with the higher levels.

Keywords: Epistemology , Science , Teacher

ID: 39

ASSESSMENT for Learning: 6+1 Writing Traits as Formative Assessment in an ESL Classroom

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A review of relevant literature has shown that assessment of students' academic writing needs to include formative as well as summative feedback, especially when process approaches to the teaching of writing are adopted. However, in Malaysia, assessment is carried out mainly for grading purposes and the teaching and learning of academic writing is firmly based on a product approach. The present study takes the form of a collaborative research project intended to consider the extent to which 6+1 writing traits and formative assessment could be introduced in order to enhance learners writing proficiency in Kolej Matrikulasi Sarawak. This project will be carried out in three stages. Phase 1 will be on documentary and interview data on current issues pertaining to ESL writing assessment practices in Malaysian pre-university classrooms and in different countries. Stage 2 is to be carried out through two cycles during which a formative assessment intervention will be introduced in classroom teaching. Interviews in Phase 3 will be constructed to discover the immediate and long-term impacts of this research project on teachers' beliefs, students' acceptance and subsequent pedagogical and learning development. The data from documents, interviews, classroom observations, and briefing and feedback sessions will be analysed. From the analysis, categories and themes will be generated and structured to address the research questions formulated for this research.

Keywords: Assessment for Learning, 6+1 Writing Traits, Matriculation colleges

ID:40

Permainan Digital Dalam Persekitaran Pembelajaran SosialKonstruktivisme Terhadap Kemahiran Berfikir Kritis

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Proses pelaksanaan transformasi pendidikan memerlukan pendekatan dan strategi baharu agar setiap pelajar mampu memiliki dan menguasai kemahiran yang diperlukan dalam abad ke-21. Oleh yang demikian untuk memastikan perkembangan kreativiti pendidik, kaedah dan strategi pengajaran dan pembelajaran yang dilaksanakan perlu mengambil kira kecenderungan, kebolehan serta kemampuan tahap kematangan pelajar dan berupaya berfikir pada aras yang lebih tinggi. Akan tetapi, dari statistik pencapaian dalam ujian antarabangsa TIMSS dan PISA meletakkan Malaysia pada kedudukan sepertiga terendah di dunia. Ini memberi gambaran bahawa pelajar kita masih rendah dari segi keupayaan menyelesaikan masalah yang memerlukan kemahiran berfikir kritis. Peningkatan populariti penggunaan teknologi komputer dan komunikasi dalam kehidupan seharian manusia terutamanya dalam simulasi dan permainan digital telah menarik minat pengkaji-pengkaji untuk mendalaminya yang dapat meningkatkan keupayaan dan memupuk kemahiran berfikir kritis dikalangan pelajar. Kertas konsep ini membincangkan potensi penggunaan permainan digital terhadap kemahiran berfikir kritis pelajar melalui persekitaran pembelajaran sosial konstruktivisme.

Kata Kunci: Permainan Digital, Kemahiran Aras Tinggi, Kemahiran Berfikir Kritis, Social Konstruktivisme, Persekitaran Pembelajaran Konstruktivisme

ID :42

Constituent Characteristics Of Academic Research Writing: A Literature Survey

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Academic research writing (ARW) continues to be at the center of teaching and learning in higher education institutions (HEI's). However HEIs lack in commitment towards preparing novice postgraduate students an academic writing, although at the postgraduate level research writing is a requirement for successful graduation of students. In the effort to contributing to solving this problem, a research is currently conducted and this paper reports a part of the research project by highlighting the constituent characteristics of academic research writing that essentially need to be considered while training and preparing novice researchers (NRs) to become members of the academic research community. The constituent characteristics were identified through an extensive structured literature review. This paper concludes that due consideration should be given to the constituent characteristics of academic research writing while preparing curriculum with the purpose of training NRs and addressing their anxiety to establish their identity as members of academic research communities.

Keywords: Academic research writing, constituent characteristics

ID:41

Peranan Teknologi Dalam Pendidikan STEM

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Kementerian Pendidikan menerusi Pelan Pembangunan Pendidikan Malaysia (2015-2025) berusaha mengubah paradigma penilaian pendidikan daripada berasaskan peperiksaan kepada berasaskan kemahiran. Oleh itu, pelajar perlu digalakkan untuk melanjutkan pelajaran mereka dalam aliran STEM supaya dapat meningkatkan pemahaman mereka tentang kepentingan STEM dalam kehidupan sebenar. STEM merangkumi empat disiplin ilmu yang berkaitan dengan pendekatan berasaskan multidisiplin. Isu kritikal dalam melaksanakan STEM adalah penghasilan pendekatan pedagogi yang cekap dan mampan. Justeru, tujuan kertas ini adalah untuk meneroka peranan teknologi bagi menyokong pelajar dalam pembelajaran konsep STEM. Perbincangan juga akan menggambarkan penggunaan teknologi sebagai alat yang sesuai untuk memberi motivasi kepada pelajar untuk menerokai dan menemui kemahiran baru. Lebih-lebih lagi, mengintegrasikan teknologi dalam pendidikan STEM akan mengubah arahan tradisional yang hanya berpusatkan guru kepada arahan berdasarkan inkuiri, penyelesaian masalah, dan pembelajaran berasaskan penemuan. Di samping itu, kertas kerja ini akan memberikan gambaran menyeluruh tentang apa dan bagaimana teknologi berfungsi dalam bilik darjah STEM. Metodologi kajian ini adalah berdasarkan kepada kajian semula strategi pencarian literatur yang berkaitan, yang dibahagikan kepada dua langkah. Langkah pertama ialah pencarian melalui pangkalan data dalam talian dan jurnal seperti EBSCoost, Emerald, ProQuest, Scopus, ScienceDirect, Springer Link, Taylor & Francis Online dan Wiley Online Library. Kata kunci yang digunakan dalam pencarian ini termasuk peranan, pendidikan, cabaran, kekuatan, minat, STEM, kaedah, pendekatan, persepsi dan kepelbagaian perisian. Langkah kedua akan menggunakan kaedah snowballing untuk mengklasifikasikan artikel yang sesuai dengan menggunakan kata kunci yang dipetik dalam artikel ini.

Kata kunci: Peranan Teknologi, Sokongan Teknologi, Pendidikan STEM

ID:43

Ujian Kebolegunaan Serta Kepuasan Pengguna Video Screencast

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Penggunaan persembahan screencast dilihat mampu memberikan impak yang optimum dalam memberikan kefahaman menggunakan sesuatu aplikasi perisian. Namun, kajian mendalam dalam mengoptimumkan proses pengajaran perlu dilakukan dan dilihat dengan lebih teliti. Bagi mengatasi masalah ini, video screencast telah dibagikan bagi memastikan pelajar mendapat pembelajaran yang maksimum dari sudut kemahiran praktikal. Oleh itu, kajian ini menumpukan kepada proses pembangunan video screencast berdasarkan teori, prinsip-prinsip persembahan multimedia dan kajian literatur yang telah dijalankan. Kajian ini juga melaporkan hasil ujian kebolegunaan dan kepuasan pengguna (PSSUQ) yang telah dijalankan.

Keywords: Pemprosesan Luaran, Screencast, Media Instruksi

ID:44

ICT skills and knowledge management practice in Teachers' Training Institute

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As the world changes toward knowledge based economy, most of the organizations diverted their focus from hard and conventional resources to knowledge as their main resources. Aligned with the globalization in education, Malaysia has transformed itself to knowledge-based society too. Creativity and knowledge management are both important competences that students need to strive to develop in higher educational institutions. Prominently, Teachers' Training Institutions as a part of higher educational institutions in Malaysia are mainly responsible in providing the demanding and vibrant accumulation and implementation of knowledge management to meet the world-class education quality. Information and communication technology (ICT) often plays a vital role in implementing knowledge management. Thus, this study examines the relationship between leader trainee teachers' ICT skills and knowledge management practice in carrying out programs in Teachers' Training Institutes. A survey research was conducted among 27 leaders from a Teachers' Education Institute in southern region of Malaysia. Three elements of ICT skills and five dimensions of knowledge management were explored. The collected data was analyzed by using SPSS 22.0. The finding indicated an average level of relationship existed between leader trainee teachers' ICT skills and knowledge management practice in carrying out programs in the Teachers' Education Institute. Understanding the relationship between ICT skills and knowledge management practice among leader trainee teachers would enable policy makers to propose a value-added teacher education syllabuses and programs.

Keywords: knowledge management; ICT skills; leader trainee teachers

ID:45

Item Analysis of Standardized Test In Biology SPM of Fully Residential School

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Invalid test and poor item quality gives inaccurate interpretation in providing feedback on teaching strategies. This study aimed to analyze self-built tests of Standardized Test In Biology SPM of Fully Residential School, which involves the analysis of item difficulty level and discrimination index. The test consists of Set 1 and Set 2. Set 1 consists of 50 multiple-choice items and Set 2 on the other hand consists of 5 structured items and four essays. The test was carried out to Form Five students in a boarding school in Kota Tinggi district with a total enrollment of 137 students. The results show that 70% of items of Set 1 is classified as simple item, 20% as moderate and remaining 10% of the items are classified as difficult. The results of the analysis show 90% of Set 2 items can be categorized as moderate, 10% of items categorized as hard and 0% easy item. The results for indexes discrimination Set 1 showed 2% of items are very good, 54% of items classified as good, 24% of items that need to be corrected and marginal while 20% items need to be removed. For Set 2, no very good items in discriminating against students, only 11% good item, 22% marginal items that need to be improved and 67% of the item is classified as weak and should be removed. This study discusses some improvements in terms of trait errors and method errors that can be done for low quality item.

Keywords: Analysis item, difficulty index, discrimination index

ID: 47

Enhancing Higher Order Thinking Skills through Mathematical Thinking in an Outside Classroom Learning Environment: A Theoretical Framework

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Emphasis on enhancing students' higher order thinking skills (HOTS) has been one of the objectives of Malaysian education system. The success of HOTS depends upon an individual's ability to create complex ideas, reorganize and embellish knowledge in the context of thinking situation. Generating HOTS in learning Mathematics starts from the process itself involving various processes of mathematical thinking. However, the inculcation of HOTS using mathematical thinking in normal Malaysian classroom setting is rather limited and often inadequate. Furthermore, it is much less practised in an outside classroom environment. Therefore, learning activities which can promote the inculcation of mathematical HOTS should be developed and implemented in the process of teaching and learning of mathematics. This paper reports an attempt to design and develop a framework aimed at promoting mathematical HOTS among Malaysian secondary schools. The framework uses appropriate questions and prompts to support each of the four Mason's mathematical thinking processes practised in an outside classroom environment.

Keywords: Higher Order Thinking Skills, Mathematical Thinking, Outside Classroom, Learning Environment

ID:48

Persepsi Pembelajaran Berasaskan Simulasi Bagi Merekabentuk Litar Pneumatik Di Politeknik Merlimau

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Kajian ini bertujuan menilai keberkesanan pembelajaran melalui simulasi bagi rekabentuk litar pneumatik. Proses merekabentuk litar pneumatik secara keseluruhannya menggunakan FluidSIM Pneumatic Dedactic bagi melihat pergerakan secara simulasi sebelum kepada pemasangan sebenar. Data diambil melalui soal selidik ke atas 36 orang responden yang diambil dalam kalangan pelajar program Diploma Kejuruteraan Mekanikal di Jabatan Kejuruteraan Mekanikal, Politeknik Merlimau yang mendaftar kursus Pneumatik dan Hidraulik. Min keseluruhan yang diperolehi adalah 3.118 bagi masalah pembelajaran kursus pneumatik & hidraulik dan min keseluruhan 4.347 bagi pandangan pelajar mengenai pembelajaran menerusi simulasi komputer. Data menunjukkan masalah utama bagi pembelajaran kursus ini adalah disebabkan pensyarah tidak dapat memberi tumpuan kepada setiap pelajar semasa latihan amali kerana jumlah pelajar yang ramai. Data juga menunjukkan pembelajaran melalui simulasi dapat memberi tindakbalas yang betul dan teratur. Ia juga merupakan satu inovasi kepada kaedah pembelajaran. Ia berpotensi meningkatkan pengalaman pembelajaran individu terutamanya pada era teknologi yang semakin pesat maju.

Kata kunci: FluidSIM, Simulasi, Pneumatik

ID:49

M-pembelajaran Sebagai Paradigma Baru dalam Pedagogi Pembelajaran Masa Depan di Malaysia

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Walaupun e -pembelajaran mempunyai lebih banyak kelebihan berbanding kaedah pendidikan tradisional, terdapat beberapa kekurangan tertentu yang akan memimpin dunia sains kepada usaha-usaha baru. Pembangunan teknologi mudah alih dan keperluan untuk pergerakan teknologi dalam pendidikan kepada dimensi baru telah mendedahkan tanggapan baru m- pembelajaran. Artikel ini mengimbas dan mengulas sastera yang berkaitan dengan definisi pembelajaran mudah alih secara terperinci tentang kelebihan, kelemahan, dan kerts kajian ini mendedahkan potensi yang boleh diramalkan pada masa depan dalam bidang pendidikan di Malaysia , malah di dunia.

Keywords: Pembelajaran Mudah Alih; M-pembelajaran; Teknologi dalam Pendidikan

ID:50

Mobile Learning Application Website for Educators

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PDA's, mobile phone and smart phone are the example of personal mobile devices that is has the ability to provide educational content. Followed by the transactional distance theory is relevant to the template design in mobile learning application for education through a website. The idea suggested that the transactional distance includes the psychological rather than geographical distance among the educators and students which it is link to the balance of the dialogue, structure (course design), and autonomy of learner (Moore & Kearsley, 2005). This study addresses the suitable design patterns layout for mobile learning application based on the student preferences in the terms of navigation menu, learning contents view, searching method and sorting method, enhance a mobile learning application model and test. The objective of this research was to help the educators creating the mobile learning application through a website. The study of design patterns for mobile learning application template is, by analyze the student preferences with quantitative method survey. Generic design templates for mobile learning application will be develop with the ADDIE model concepts. A working prototype system website will be develop after the findings of the design patterns based on the preferences of students in UTMs' postgraduate master student will be discussed and evaluated.

Keywords: template design in mobile application, design patterns layout, prototype system, transactional distance theory, ADDIE model

ID:51

The Investigation of Criteria on Novel Selection

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This study is to seek out the importance of criteria in text selection and how the learners adopt the reading stance when reading a novel in relation to text selection. In addition, this study also aims to investigate the perception of the students about the current novel and how the current novel helps them to achieve the objectives laid in the syllabus. The mixed methods were employed where a set of questionnaires were distributed. Other instruments involved were interview protocol and journal entry. Questionnaire data were analysed using factors analysis to determine the important criteria factors in text selection. For interview protocol, the data was coded and transcribed. Findings from questionnaires and interview protocol indicate that certain criteria were important to be considered before selection of text is made.

Keywords: Literature, Novel, Criteria

ID:52

A simultaneous Attention to Form and Meaning in Second Language Acquisition: The Issue of Reactivity and Depth of Processing

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The present study was addressed the methodological issue effect of simultaneous attention to lexical form and meaning on subsequent reading comprehension in second language input task from a different perspective of several potential methodological issues of previous research that have been based on psycholinguistic notion of second language learner as a limited capacity processor (McLaughlin, 1987). Taking into account the issue of simultaneous attention to form and meaning in the light of Van Patten's (2004) model of input processing and Depth of processing of Craik and Lockhart (1972) model of memory. The issue of whether learners paying attention to the processing of input for meaning can simultaneously pay attention to process form in same input is remain investigating in the issue of reactivity. The study was conducted on Thirty-six intermediate English as foreign language learners who completed reading comprehension tasks based on attentional condition of task-induced involvement. Concurrent data of think-aloud was employed to address the establish learners' attention to form and meaning while interacting on performing reading comprehension. One of the recent advantages in operationalizing and measuring attention is the incorporation of think-aloud protocol in research design. Results revealed that attending learners' attention to process of form and meaning while processing of meaning have effect to arise an online methodological issue of reactivity effect on reading comprehension of second language learners.

Keywords: Attention to level of processing, Reading Comprehension, Depth of processing, Think-Aloud

ID:53

Down Syndrome Students' Achievement In Numeracy

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Down syndrome is the most common biological cause of intellectual disability. Conventional instructional practices have to a large extent impeded the effectiveness in delivering mathematics knowledge for students with Down syndrome. Literature reveals that students with Down syndrome vary widely in their learning progress, rate of acquisition and achievement in mathematics as compared to their typically developing peers. This intervention study was conducted to explore the effectiveness of supplemental instruction using Numicon in teaching and learning of addition among students with Down syndrome. Result showed that there was significant progress in terms of basic mathematical skills acquisition in students who use Numicon learning kit compared to students who were taught in conventional way. Research indicates that with effective teaching, by using the student's strengths for visual learning, student with Down syndrome are able to learn particularly counting, if they are exposed to the appropriate teaching strategies. In conclusion, students with Down syndrome are able to improve their basic mathematical counting skills through training that combines activities with concrete objects.

Keywords: Down Syndrome, Numeracy Abilities, Numicon

ID:54

Attitudes And Knowledge Of The Mainstream Teachers On Inclusive Education

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Inclusive education in Malaysia is not a new agenda as its movement started in the 1990's to support The Salamanca Statement and Framework for Action on Special Needs Education, World Declaration on Education for All, The Dakar Framework of Action and the Biwako Millennium Framework for Action. Inclusive Education Programme (IEP), an education programme under the Malaysian Special Needs Education system for disabled children that allowed them to study, together with non-disabled children in the same class of mainstream schools. Acceptance and readiness of mainstream teachers in the inclusive practices to special educational needs students always be a concern issue in ensuring the effectiveness of a national education policy. A descriptive study was conducted to investigate the mainstream teachers' attitudes and knowledge on inclusive education practices in secondary schools in the Johor, Malaysia. Purposive sampling technique was used to select samples from 115 secondary school teachers in the area of Pasir Gudang, Johor.

Keywords: Mainstream Teachers' Attitudes, Mainstream Teachers' Knowledge, Inclusive Education.

ID:56

Tahap Penguasaan Kemahiran Generik Di Kalangan Pelajar Semester Akhir Kursus Kejuruteraan Mekanikal Politeknik Merlimau Melaka

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Kajian ini dijalankan bertujuan untuk meninjau tahap penguasaan kemahiran generik di kalangan pelajar kejuruteraan mekanikal semester akhir tahun 2015 di Politeknik Merlimau, Melaka. Kajian ini merupakan kajian diskritif yang tertumpu kepada tiga elemen kemahiran generik iaitu kemahiran komunikasi, kemahiran menyelesaikan masalah dan kemahiran bekerja dalam pasukan. Sampel kajian terdiri daripada pelajar-pelajar semester akhir yang mengikuti kursus dalam bidang Kejuruteraan Mekanikal. Seramai 120 responden yang terlibat dalam kajian ini. Instrumen yang digunakan adalah soal selidik yang melibatkan maklumbalas responden terhadap persoalan-persoalan kajian. Analisis data dibuat berdasarkan nilai peratusan dan min dengan menggunakan perisian Statistical Package For Social Science (SPSS Version 16 For Windows).

Kata Kunci: Kemahiran, Generik, Kejuruteraan, Penguasaan, Mekanikal

ID:57

Penggunaan Pearuh Dalam Penghasilan Seterika Berteknologi Hijau

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Pearuh adalah kesan sementara elektromagnet yang berlaku apabila arus aliran melalui gegelung. Idea Seterika pearuh keluar dari isu keselamatan keranapermukaan besi terlalu panas dan haba yang dibina di dalam hilang perlahan-lahan. Ini boleh menyebabkan membakar jika pengguna menyentuh permukaan besi secara langsung. Selain itu, bekalan elektrik terus digunakan walaupun besi itu tidak bersentuhan, jadi ini akan menyebabkan pembaziran tenaga elektrik. Jenis seterika pearuh yang digunakan adalah aruhan sendiri, di mana ia terdiri gegelung tunggal dan boleh mengaktifkan apabila terdapat hubungan antara plat logam tertanam di papan besi. Oleh itu, pemanasan induksi ini hanya akan berlaku apabila besi adalah tempat di papan besi (tidak berterusan menghidupkan). Seterika pearuh boleh memberi keputusan positif terhadap kesan rumah hijau kerana elektrik yang rendah penggunaan dan ia tidak akan memanaskan jika tidak ada hubungan antara besi dan seterika. Seterika pearuh adalah lebih selamat dan seterika sehingga sejuk dengan cepat supaya dapat mengelakkan pengguna daripada apa-apa perkara keselamatan seperti melecur atau kejutan elektrik.

Kata kunci: Pearuh, Teknologi Hijau, Tenaga Elektrik

ID: 58

LINUS Teachers' Knowledge of Basic Language Constructs Related To Reading Instruction: A Descriptive Study

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Learning to read is recognized as the most important task for primary school students. Consequently, studies have found that students struggling to read need to be taught with coherent reading instructions but teachers lack the essential knowledge to do so. Studies also highlighted the importance of direct measurement of teacher's knowledge as opposed to indirect measurements of knowledge such as college ratings or degree attainment. This is because indirect measures do not directly represent what the teachers know and can do. To date, studies on teachers' knowledge of basic language constructs related to reading instruction (i.e. phonological awareness, phonemic awareness, phonics and morphology) have been done on English primary school teachers in the US. However, little is known about teachers' knowledge of basic language constructs related to reading instruction in the Malaysian context. In Malaysia, students struggling to read are placed in a remedial programme called the LINUS (Literacy and Numeracy Screening) programme and are taught by specially trained LINUS teachers. Thus, the purpose of this study was to examine LINUS teachers' knowledge of basic language constructs related to reading instruction. This study utilized the survey research method and involved 20 LINUS teachers teaching English literacy from 6 Johor Bahru national primary schools, including 3 national primary schools (i.e. Sekolah Kebangsaan), 1 national-type Chinese primary school (i.e. Sekolah Kebangsaan Cina), and 1 national-type Tamil primary school (i.e. Sekolah Kebangsaan Tamil). The implications of findings on LINUS teachers' knowledge of basic language constructs related to reading instruction were discussed.

Keywords: LINUS Teachers, Basic Language Constructs, Reading Instruction

ID:59

Students' Social Processing during Cooperative Learning in Chemistry Practical Work

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Students' social processing in practical work has become an important issue in the effectiveness of teaching and learning chemistry. It has strong impact on the quality and amount of learning, but little is known about the nature of social processing that occur during cooperative small group practical work. The purpose of this study is to investigate the nature of social processing that occurs in students interactions during chemistry practical lessons. Five chemistry teachers with their students from national schools in the Southern West Coast of Sabah, Malaysia were involved in this study. Five chemistry practical lessons were observed, and were audio and video taped. Data were analysed and coded based on a well-known framework for sociocultural discourse analysis. Findings revealed that three major modes of social processing identified were 'tutoring' (37.5%), 'domination' (22.5%), and 'confusion' (20.0%). Other modes of social processing identified were 'interacting with teacher' (15.0%) and 'interacting with lab assistant' (5.0%). 'Tutoring' played a central role in most of the observed interactions in the lab, often found in group activities, in which one student provided support to others by answering questions or guiding their work. While, 'domination' was found in certain groups, in which group actions were directed by a single individual. Meanwhile, 'confusion' was found when one or more group members do not know very well how to proceed or fail to communicate clearly with others. The research findings will provide ideas and practical guidance to educators which behaviours facilitate or hinder learning during cooperative learning in small groups.

Keywords: Social processing, Cooperative Learning, Practical work

ID:60

Teknologi Mudah Alih Dalam Meningkatkan Kemahiran Berfikir Aras Tinggi Pelajar

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Kemahiran berfikir aras tinggi (KBAT) merupakan satu kemahiran yang sangat penting dalam dunia pendidikan pada masa kini. Kebanyakan kemahiran berfikir yang diterapkan dalam pendidikan mengutamakan kemahiran berfikir aras tinggi dan penekanan kepada kemahiran abad ke-21. Salah satu kemahiran abad ke-21 yang ditekankan adalah pelajar berkemahiran dalam komunikasi, maklumat, media serta teknologi. Teknologi yang dimaksudkan termasuklah teknologi mudah alih yakni teknologi yang menjadi kegilaaan pelajar masa kini. Ramai pengkaji mengakui kelebihan dan potensi teknologi mudah alih dan kebanyakan dapatan kajian yang dijalankan menunjukkan impak positif terhadap pengajaran dan pembelajaran (P&P). Bagi memastikan proses pembelajaran masa kini selari dengan perkembangan alat komunikasi serta gadget yang sememangnya amat diminati oleh pelajar terutama golongan remaja, maka sudah tiba masanya pendidikan di sekolah menggunakan medium aplikasi pembelajaran mudah alih bagi tujuan meningkatkan kemahiran berfikir aras tinggi pelajar. Oleh yang demikian, kertas kerja ini akan membincangkan sejauh mana teknologi mudah alih dapat dimanfaatkan beserta pendekatan-pendekatan yang boleh digunakan oleh golongan pendidik dalam membangunkan pemikiran pelajar ke aras yang lebih tinggi.

Kata Kunci: Kemahiran Berfikir Aras Tinggi (KBAT); Teknologi Mudah Alih, Pembelajaran Mudah Alih

ID:61

Eksplorasi Kepustakaan Kemahiran Generik Hijau untuk Pekerjaan dalam Sektor Perindustrian

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Kemajuan ekonomi negara haruslah diimbangi dengan pemeliharaan dan pemuliharaan alam sekitar. Justeru itu dalam menyokong pertumbuhan ekonomi hijau, negara memerlukan sumber manusia yang dilengkapi dengan kemahiran bukan teknikal atau kemahiran generik. Ini kerana negara amat bergantung kepada keupayaan generasi muda yang berkebolehan bagi memenuhi kehendak industri yang memerlukan tenaga kerja mahir, berpendidikan dan berkualiti. Dalam konteks kelestarian alam sekitar, kemahiran ini disebut sebagai kemahiran generik hijau yang merupakan value added kepada kemahiran generik sedia ada. Kertas kerja ini membincangkan secara kritikal mengenai kemahiran generik hijau untuk pekerjaan dalam sektor perindustrian yang mencakupi perolehan hijau industri, kemahiran kreativiti dan inovasi lestari/teknologi hijau dan sistem pengurusan tenaga, air dan sumber-sumber asli di samping memperincikan atribut bagi kemahiran generik hijau.

Kata Kunci: kemahiran generik hijau, atribut kemahiran generik hijau, industry

ID:63

The Mobile Science Laboratory (MSL): A Systematic Review

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Experiments and hands-on activities encourage students to be active in knowledge construction. As students carried out experiments and activities, they explored science concepts and retain the knowledge. Currently, a low number of experiments are carried out because some schools are not equipped with updated experimental apparatus, while some schools' laboratories are broken and they do not have enough experimental apparatus. Therefore, a systematic review was made to study the use of mobile science laboratory in previous studies and its need in Malaysia context. The findings show that teachers had developed their pedagogical skills and confidence in laboratory teaching instruction. The students gained conceptual understanding, retained science learning, increased interest in subject and experiment, and interest to choose career in STEM.

Keywords: learning, mobile science laboratory, conceptual understanding

ID:62

Planning, Implementation, Assessment, and Reflections of Service Learning In Malaysia and Indonesia

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Abstract: *Service Learning (SL) has become a teaching innovation in USA and UK universities since the 90's. SL in Indonesia is a compulsory university course and being categorized at par with practical training since the 70's. Hence, it becomes one of the important mechanisms for producing students who are able to share their knowledge and skills to the community. Therefore, due to its success in enhancing graduates's soft skills in Indonesia, Universiti Teknologi Malaysia (UTM) has identified SL as one of the New Academia Learning Innovations. Subsequently, lecturers are encouraged to implement SL as one of the teaching and learning methods in their courses. However, since SL is new in UTM, there is a need to explore the phases practised by lecturers in universities in Indonesia and UTM in conducting SL. Consequently, the phases being investigated in this study are planning, implementation, assessment, and reflection. A total of 4 lecturers and 61 students from UTM and Universiti Gadjah Mada from Indonesia participated in this research. The study using mixed method concurrent explanatory study (qualitative and quantitative) as the main methodology whereby the lecturers having interviewed session and students were asked to complete a set of closes-ended questionnaire. The data were analysed using Thematic Analysis and SPSS 16.0-to get the mean, standard deviation and independent t-test. Results show that there is no significant difference between the mean score of each SL phase. The results of this study have great implication for the implementation of SL at universities in Malaysia.*

Keywords: Service Learning, Soft Skill, Teaching And Learning

ID: 64

Kajian terhadap keperluan 'Smart Table Projector' sebagai inovasi penggunaan projector LCD dalam pengajaran dan pembelajaran di Politeknik Merlimau

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"Smart Table Projector" merupakan satu projek inovasi dalam penggunaan projektor LCD semasa proses pengajaran dan pembelajaran. Idea ini diperolehi setelah menjalankan kajian terhadap keperluan mewujudkan inovasi penggunaan projektor LCD di kalangan tenaga pengajar di Politeknik Merlimau. Ia bertujuan untuk menyelesaikan beberapa kesukaran ketika menggunakan projektor di dalam bilik kuliah. Kajian terhadap keperluan inovasi ini telah dijalankan di kalangan pensyarah Politeknik Merlimau melibatkan 200 responden dan data telah dianalisis menggunakan perisian SPSS. Beberapa item yang dinilai telah menentukan ciri-ciri yang menjadi aspek utama semasa merekabentuk produk ini. Ciri yang paling utama menjadi pilihan responden ialah ia mudah dikendalikan oleh pelbagai lapisan masyarakat dengan nilai skor min yang diperolehi 3.72. manakala ciri-ciri lain yang juga merupakan aspek penting dalam penghasilan idea ini ialah menjimatkan masa dan selamat untuk digunakan yang masing-masing memperoleh skor min melebihi 3.00. Hasil dari kajian ini, maka lahirlah idea "Smart Table Projector" yang dilengkapi dengan meja komputer riba dan projektor serta komponen-komponen yang lain seperti sistem audio dan pembesar suara yang disusun secara teratur. Penghasilan alat ini merupakan suatu langkah baru bagi menerapkan konsep keselesaan dan mudah dikendalikan semasa sesi pembelajaran, ceramah, motivasi dan lain-lain. Projek ini diharapkan dapat menggantikan kaedah-kaedah yang lama dan menggabungkan kaedah-kaedah yang sedia ada selari dengan perkembangan teknologi kini.

Keywords: Keperluan, Idea, Inovasi, Pembelajaran, Keselesaan

ID: 65

Kajian Terhadap Tahap Pelaksanaan Amalan 5s Di Kalangan Kakitangan Awam Di Sekolah Sekitar Merlimau

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5S adalah satu akronim yang lahir daripada lima perkataan Jepun iaitu Seiri, Seiton, Seiso, Seiketsu dan Shitsuke. Prinsip atau amalan 5S kini telah diterima pakai dan diamalkan oleh kebanyakan industri atau organisasi di Malaysia mahupun di seluruh dunia. Pemakaian prinsip ini adalah bertujuan untuk mengekalkan persekitaran berkualiti di sesebuah organisasi sekaligus membantu sesebuah organisasi terbabit untuk lebih berjaya, terkehadapan dan berdaya maju. Kajian ini adalah untuk mengetahui tahap pelaksanaan amalan 5S yang dijalankan di sekolah yang melibatkan beberapa buah sekolah di sekitar Merlimau. Tiga objektif utama telah dibentuk iaitu tahap kefahaman kakitangan awam berkenaan amalan 5S, tahap pelaksanaan 5S di jabatan kerajaan dan impak pelaksanaan 5S terhadap kualiti kerja kakitangan awam. Seramai 105 kakitangan awam telah terpilih mewakili sampel kajian. Analisis data dilakukan dengan menggunakan perisian Statistical Package For Social Science (SPSS) dan dipersembahkan dalam bentuk statistik deskriptif seperti peratusan, kekerapan dan min. Hasil kajian menunjukkan bahawa responden memberikan persepsi yang positif terhadap persoalan kajian. Dapatan kajian menunjukkan bahawa kakitangan awam di sekolah sekitar Merlimau faham dan menerima amalan 5S yang cuba diterapkan dalam sesebuah organisasi dengan nilai skor min 3.61. Tahap pelaksanaan 5S di sekolah-sekolah sekitar Merlimau juga berada dalam keadaan baik dengan nilai skor min 3.27 yang menunjukkan bahawa kakitangan awam mula untuk mengamalkan 5S bermula dari ruang pejabat. Impak positif kakitangan awam melaksanakan amalan 5S adalah berada di tahap yang tinggi dengan nilai skor min 3.54. Amalan 5S telah berjaya menanam dan meningkatkan nilai-nilai positif di dalam diri kakitangan awam terlibat seperti bertanggungjawab, kreatif dan inovatif, berdisiplin dan kerja berpasukan. Keseluruhannya, amalan 5S ini wajar dilaksanakan dengan penuh komitmen dari semua pihak.

Katakunci : Kualiti, Amalan, Prestasi

ID: 66

Student's Confidence Level towards the Use of Technology Integration in Learning Movement Skills

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The purpose of this study was to investigate the effects of a multimedia sports courseware in teaching movement skills, which will be developed based on the Simpson's Psychomotor Domain Taxonomy. Integrated with a video analysis technology and simulation, the courseware would be developed for sport subjects in the sports science syllabus. However, this paper highlights one objectives of the study, which investigated students' confidence level towards the use of technology integration in learning movement skills. Overall, 30 undergraduate students—majoring in sports science in one Malaysian university—were involved. The tool was a questionnaire supported by some interviews and observation. The results showed that student's feel more confidence to perform their skills and using this technology integration strategy training had a significant positive effect in movement skills learning. Conclusion was that as expected, this courseware promote students to a more advanced learning process that can trigger positive effects in their movement skills learning.

Keywords: Confidence Level, Learning Movement Skills, Technology Learning Materials.

ID: 67

Aplikasi Perisian Android Dalam Pembelajaran Kursus Termodinamik

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Tujuan kajian ini dijalankan adalah untuk meninjau tahap penerimaan pelajar berkaitan pengayaan dalam penyampaian dan penerangan bagi kursus teknikal dalam menghasilkan satu inovasi dalam proses pengajaran dan pembelajaran (P&P). Kajian ini menjurus kepada penggunaan satu aplikasi perisian yang dikenali sebagai Android Apps bagi menghasilkan bahan pembelajaran interaktif bagi kursus Termodinamik yang boleh didapati di "Google Play" yang boleh diakses melalui telefon pintar. Kursus ini ditawarkan di institusi pengajian tinggi bagi program kejuruteraan mekanikal. Satu dimensi kriteria multimedia digunakan untuk menilai bahan pembelajaran interaktif ini iaitu elemen persembahan. Kaedah soal selidik dijalankan bagi menguji keberkesanan bahan pembelajaran interaktif yang telah dihasilkan. Data-data yang diperolehi dianalisis dengan menggunakan perisian SPSS. Ujian statistik deskriptif telah digunakan untuk menerangkan dapatan kajian. Hasil kajian secara keseluruhannya menunjukkan bahawa bahan pembelajaran interaktif dapat diterima oleh pelajar dengan mengintegrasikan android dalam pembelajaran. Selain itu dapatan kajian juga menunjukkan bahawa banyak lagi elemen ditambah dan diperbaiki untuk meningkatkan kualiti bahan pembelajaran interaktif ini.

Katakunci: Interaktif, Proses Pembelajaran, 'Apps'

ID:68

The Problem Faced By Vocational Novice Teacher in Malaysian Vocational College

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Technical and vocational education and training (TVET) today faces huge demands, challenges and opportunities. Currently, Ministry of Education has led the change through the transformation program on vocational education by upgrading vocational schools to vocational colleges since 2011. It was designed especially to produce a holistic human capital capable of facing any challenge to provide a highly trained workforce to meet the industrial needs. TVET transformation focuses on employability component and skills competency of its future graduates therefore the vocational teachers play a crucial role to make sure the future graduates of vocational colleges are skillful and competitive. Teachers often describe their first teaching job following graduation as a shocking experience. Therefore, the purpose of this study is to identify the problems faced by the Vocational Novice Teachers (NVT) in Malaysian Vocational College (VC). The data of this survey were collected using quantitative techniques, whereby the questionnaire was administered to 216 NVT (N=216) who were teaching vocational subjects at Malaysian VC with less than 4 years teaching experience. The questionnaire focused on 9 main aspects of the problems faced by NVT at VC and their demographic factors (gender and teaching experience). The research data are analyzed in order to obtain descriptive data and inference. A pilot study was conducted to test validity and reliability of research instrument. From the pilot study, the value of validity and reliability is high ($\alpha = 0.950$). The study has shown that VNT have worrying problems specifically in teaching and learning at workshop, evaluation and assessment aspect and co-curriculum aspect. In inference analysis, there were significant differences of teachers' problem and their teaching experience. The impact of this study are to determine the problem that faced by NVT and how the Ministry of Education can help to develop VNT teaching development. Thus, the appropriate approach should be taking into account in order to solve the problem that faced by vocational novice teacher to make sure the mission of vocational transformation can archived.

Keywords: Technical and Vocational Education, Vocational Novice Teacher, Vocational College, Vocational Novice Teacher Development

ID: 69

Menilai Program Sekolah Berasaskan Pendekatan Pengguna

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Sekolah adalah sebuah organisasi yang melaksanakan program pendidikan negara. Kejayaan dan keberkesanan program pendidikan di sekolah seringkali dinilai berdasarkan kepada pencapaian objektif pendidikan. Jika objektif pendidikan adalah untuk melahirkan pelajar yang berilmu dan berkemahiran maka, kejayaan sekolah lazimnya dinilai berdasarkan kepada pencapaian prestasi akademik dalam peperiksaan awam. Pada abad ke-21, reformasi penilaian program pendidikan telah berubah kepada menentukan pencapaian berdasarkan standard yang telah ditetapkan oleh pemegang taruh. Program pendidikan di sekolah di katakan berjaya sekiranya mencapai suatu kriteria yang telah ditetapkan. Pendekatan penilaian di atas adalah berasaskan pencapaian peperiksaan akademik sahaja sedangkan kaedah penilaian lain seperti pendekatan pengguna dapat melengkapkan penilaian program dengan mengambil kira pengalaman pelajar. Sehingga kini, terdapat kekurangan penilaian program yang dilaksanakan berasaskan konsep kepuasan pelajar. Artikel konseptual ini membincangkan potensi penilaian program pendidikan di sekolah berasaskan konsep pendekatan pengguna. Dalam konteks ini adalah kepuasan pelajar.

Keywords:Penilaian Program, Kepuasan Pelajar, Program sekolah

ID 70

The Implementation of International Student Mobility Programme and the Impact towards Students' Development

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Due to globalization and emphasizing of internationalization in Malaysia higher education, the international student mobility programme at the university becomes important year by year for few reasons. It helps to increase university's ranking, promotes international networking and benefits the students in many ways. This paper elaborates the implementation of international student mobility programme, namely ASEAN International Mobility for Students (AIMS) at seven Malaysian public universities and examines the responses of university students about this mobility programme. Besides, this paper also examines the impact of the programme towards students' self-development. Concerted efforts have been put in place to run an effective international student mobility programme at the university with a guideline of iterative four-step management method, P-D-C-A model (Plan-Do-Check-Act). P-D-C-A model helps international student mobility officers in preparing the activities to conduct international student mobility. The implementation of international student mobility involves stages and supports from many departments in the university. Few procedures for data collection include online survey and interviews help researcher to collect data on the effectiveness of the programme towards university's students. This paper will show some data on the impact of ASEAN International Mobility for Students (AIMS) programme. Findings of this paper will explain that students from seven public universities who participating in AIMS agreed that AIMS programme has enhanced their self-skills such as communication, independent and understanding in multicultural issues. Few suggestions have been made in the discussion at the end of this paper.

Keywords: ASEAN International Mobility for Students (AIMS) Programme, Implementation, Effectiveness, Student Development

ID: 71

Theoretical Underpinnings of I-Think Programme In Malaysia

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The i-THINK program is an education transformation in Malaysia with the essence to create a younger generation who could think and adapt knowledge creatively, innovatively and critically to face the world of future which will surely be more challenging. The 'i' means Innovative while 'THINK' means thinking. i-THINK Programme is a joint venture between Ministry of Education Malaysia and Innovation Agency Malaysia (AIM). It is aimed at instilling the capacity to think creatively and innovatively at the level of the primary and secondary schools through the use of thinking maps developed by Dr. David Hyerle (1993). i-THINK tools are visual-verbal learning tools based on a fundamental thinking process and use together as a set of tools for showing relationships. There are 8 Thinking Maps in i-THINK Programme. The eight Thinking Maps are Circle Map, Bubble Map, Double Bubble Map, Brace Map, Tree Map, Flow Map, Multi-Flow Map and Bridge Map. There are different usages of Thinking Maps that match to specific knowledge type. i-THINK is a realistic and practical approach linked to the underpinnings of a few learning theories. Among these are Ausubel's Meaningful Learning and Information Processing Theory, Social Interdependence Theory. The current paper focused on three aspects of the implementation of i-THINK Programme in Malaysia. The first part introduced the eight Thinking Maps. The second part discussed about theoretical underpinnings of i-THINK Programme while the last part is application of i-THINK Programme in various subjects of secondary school.

Keywords: i-Think, Visual-verbal learning, Thinking Map

ID: 72

The Overview of Problem Solving Skill through Online Social Networking Platform

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Problem-solving skill is one of the 21st century skills needed by students to be competitive in the future working world. However, international assessment results have shown Malaysian students are still weak in problem solving and many graduates face problems securing a job due to a lack of problem-solving skill which is highly sought after by industries. Although problem-solving skills can be learned, enhanced, studied and mastered, these skills are still not sufficiently exposed and trained to students at the moment. Realizing the huge potential of social networking sites (SNS) that may serve as a promising learning platform, this paper discusses the potential of using Facebook as an informal alternative learning tool to enhance problem-solving skills among school students. The popularity and familiarity of Facebook may attract students to participate actively in discussions and encourage peer collaborations in online social problem solving environment; hence, helping to improve students' problem-solving skill.

Keywords: Problem solving, Facebook, Social Networking Site, Social Media

ID: 73

Effect Of Interval And Aerobic Continuous Training On Vo2max In Long Distance Athlete

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The purpose of this study was to evaluate the effects of interval and aerobic continuous training on changes in maximal oxygen consumption (VO₂max) and lactic thresholds during 4 month incremental exercise which performed 4 times training session a week in training programs. Fifteen male and female athlete from National Sports School and secondary school were divided into three group experimental research design. The three groups are interval training group (ITG) (n=5), aerobic training group (ATG) (n=5), and control group (CG) (n=5). Pre, during and post-test study design were use where subjects underwent the test before, after 8 and 16 weeks of training into 3 phase experimental (Phase 1: pre-test + time trial¹), (Phase 2: pos-test¹ + time trial²), and (Phase 3: pos-test² + time trial³). SPSS (Statistical Package for the Social Science) version 12 were used for data analyses were One-way anova with post-hoc analyses will be employed to test the significance of the result. The hypothesis of this study stated there will be a significant different of VO₂max and concentration of lactic thresholds between three assigned group following interval and aerobic continuous training.

KEYWORDS: Interval Taining; Aerobic Continuous Training; VO₂max.

ID: 74

Impak Kepimpinan Instruksional Ketua Panitia Baharu Dalam Pengurusan Sekolah

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Kajian ini meneroka impak ketua panitia baharu dalam pengurusan sekolah. Penyelidik turut menganalisis kewibawaan ketua panitia yang dilantik berdasarkan Model Kepimpinan Instruksional (Hallinger, 2005). Selain itu, kajian turut menganalisis hubungan kriteria pelantikan dengan amalan kepimpinan instruksional ketua panitia mata pelajaran. Dimensi Kepimpinan Instruksional yang diberi tumpuan ialah i) mentakrif dan membentuk matlamat sekolah, ii) mengurus program instruksional, iii) menggalakkan iklim pembelajaran dan iv) membentuk suasana sekolah yang mesra dan saling membantu. Data diperoleh daripada soal selidik yang melibatkan seramai 109 ketua panitia sebagai responden. Analisis perbandingan dibuat untuk menunjukkan perbezaan amalan kepimpinan instruksional antara guru baharu dan guru lama. Dapatan menunjukkan bahawa terdapat impak yang signifikan antara kepimpinan ketua panitia sebagai pemimpin instruksional dengan pengurusan sekolah.

Kata Kunci: Kepimpinan Instruksional, Ketua Panitia, Pengurusan Sekolah

ID: 75

Using Video Modeling to Increase Social Interaction in Children With Autism

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Video modeling is a well-validated intervention documented in the behavioral sciences. It has been used to target a variety of behaviors across many areas of functioning including language, social behavior, play, academics and adaptive skills. It is also a behavioural intervention in which an observer views a short video engaged in adaptive behaviour. The aim of the intervention is for the participant to learn the adaptive behaviour. The methodology appears particularly efficacious for children with Autism Spectrum Disorder (ASD). Due to language deficits and impaired social functioning, individuals with Autism Spectrum Disorder (ASD) can demonstrate inappropriate behavior during social interactions (Ozonoff, Rogers, & Hendren, 2003). Students with Autism Spectrum Disorder (ASD) face many hardships and struggles in life. Therefore, teachers need to implement specific techniques, such as video modeling, to address this behavior (LeBlanc et al., 2003). Video modeling uses visual cues, an effective strategy for instructing children with ASD, who are often visual learners. In this review of research applications of video modeling, we discuss 1) the specific characteristics of Autism that may provide a rationale for using video modeling 2) the unique aspects of video modeling are presented within a social learning context (Bandura, 1977, 1986. 3) a critical evaluation of existing literature regarding the effectiveness of video-modeling as an intervention approach for improving social interaction in children with ASD and also the previous studies. Recommendations for future research will also be discussed.

Keywords: Video Modeling, Social Interaction, Autism

ID: 76

Pembangunan Rubrik Reka Bentuk Produk Inovasi: Ujian Kesahan dan Kebolehpercayaan

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Kemahiran menjana idea inovasi diperingkat reka bentuk konsep adalah sesuatu yang subjektif sifatnya. Oleh itu, penilaian terhadap idea konsep diperingkat ini boleh dilakukan dengan menggunakan instrumen yang berasaskan kriteria-kriteria tertentu bagi mendapatkan idea terbaik yang memenuhi kehendak reka bentuk produk inovasi. Kajian ini menghasilkan satu kaedah penilaian terhadap reka bentuk produk inovasi dengan menggunakan penskoran skala rubrik yang dinilai oleh pensyarah. Rubrik ini mengandungi tiga konstruk utama sebagai asas penilaian terhadap reka bentuk produk inovasi iaitu idea baharu, idea pelbagai dan idea kualiti. Untuk mendapatkan kesahan dan kebolehpercayaan rubrik yang dibina, model Pengukuran Rasch Pelbagai-Faset versi 3.71.4 telah digunakan yang melibatkan tiga faset, iaitu hasil kerja pelajar, item yang dinilai dan pensyarah penilai. Pensyarah penilai terdiri dari tiga orang pensyarah reka bentuk produk di kolej komuniti KPTM dan subjek yang dinilai ialah tiga puluh idea produk inovasi pelajar yang menggunakan perisian reka bentuk berbantu Komputer dan kaedah lakaran tradisional. Hasil dapatan kajian menunjukkan kebolehpercayaan individu bagi tiga konstruk tersebut berada di antara julat 0.89-0.92. Kesahan Item-item juga disemak dari segi keserasian data dengan melihat nilai 'outfit mean square' dan 'infit mean square'. Tiada item-item yang digugurkan kerana semua item adalah terletak dalam julat pengukuran kebolehpercayaan yang baik. Peratus persetujuan antara penilai adalah di antara 51.3% - 55.4%. Pekali persetujuan 'Rasch-Cohen Kappa' berada pada julat 0.87- 0.94 dan memenuhi kehendak Model Pengukuran Rasch. Hasil dapatan kajian menunjukkan rubrik yang dibangunkan ini sesuai digunakan untuk menilai idea produk inovasi diperingkat reka bentuk konsep di kolej komuniti KPTM.

Katakunci:Produk inovasi,Rubrik,Reka bentuk berbantu komputer , Model Pengukuran Rasch Pelbagai Faset.

ID: 78

English Language Teaching Standards used by Malaysian English Teachers

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It is perceived that the English proficiency among Malaysians has been in decline. Among the factors that are always seen as the cause of this issue is the language competency of the English teachers without realising that there are other factors involving practice and knowledge of the teachers in school. The aim of this paper is to find out how English Teachers in Malaysia determine their teaching standards and how a subject-specific teaching standard would help improve their practice. A review of studies showed that English teachers in Malaysia do not have a subject-specific standard that they follow. Teaching standards in Malaysia is currently being assessed under Malaysian Quality Standard of Education. This set of standards is used to measure the overall quality of the school. One aspect is to measure teaching standards in the classroom through classroom observation. However, this standard only serves as a general standard and is not subject-specific. As a comparison, in Australia, the Standard for Teachers of English Language and Literacy Australia (STELLA) is developed. The document lays out a framework of standards as a guide of standards of English Language Teachers in Australia. This paper discusses the key issues relating to Malaysian English Teacher Standards. It provides insight on issues to be considered in determining teacher standards that would be significant to the policymakers and educators alike.

Keywords: English Subject, Teaching Standard, Framework, Professional Development

ID: 79
Kemahiran Berfikir

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Dalam era maju menuju wawasan 2020, Transformasi pendidikan vokasional merupakan usaha merekayasa (reengineering) sistem pendidikan sedia ada sehingga terbina sistem pendidikan vokasional baharu yang dapat menyumbang kepada agenda transformasi Malaysia sebagai Negara berpendapatan tinggi. Dengan wawasan tersebut, sistem pendidikan vokasional perlu menitik beratkan kemahiran berfikir yang merupakan salah satu aspek penting dalam kebolehkeraan seseorang penuntut diambil bekerja. Patrick, Barry dan Esther (2012) telah mengemukakan KSAVE model (*Knowledge, Skills, Attitude, Values and Ethics*) iaitu merupakan analisis bagi kerangka kemahiran bagi kehendak abad ke-21 dan kemahiran berfikir merupakan salah satu elemen tersebut. Kemahiran berfikir amat penting kerana menurut *National Higher Education Research Institute*, 2010 pihak industri menyalahkan pihak institusi pengajian kerana tidak mempengaruhi pelajar menggunakan kemahiran berfikir secara kreatif dalam proses pembelajaran. Selain itu juga, pihak industri menyatakan bahawa sebilangan kecil sahaja graduan yang dapat menyelesaikan sesuatu masalah. Oleh itu, penyelidikan ini adalah berdasarkan kemahiran berfikir di kalangan Kolej Vokasional. Penyelidik ingin mengkaji sejauhmana kemahiran berfikir dikalangan pelajar vokasional supaya dapat menjamin kualiti pelajar yang akan diambil bekerja.

Kata Kunci: Kemahiran Berfikir

ID: 80
Persepsi pihak Pengurusan Industri terhadap Kemahiran Generik Graduan Politeknik Malaysia

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Kemahiran generik merupakan kemahiran yang penting di tempat kerja samaada di firma pekerjaan tempatan mahupun antarabangsa. Majikan pada masa kini lebih berminat untuk mendapatkan pekerja yang memiliki kemahiran generik memastikan kejayaan perniagaan. Dalam konteks tempatan, Politeknik adalah salah satu institusi pendidikan utama di Malaysia yang bertujuan untuk melahirkan kakitangan teknikal bagi memenuhi keperluan industri. Oleh itu, kajian ini memberi tumpuan kepada persepsi semasa majikan terhadap kemahiran generik para graduan politeknik dari segi motivasi, pemikiran kritikal dan komunikasi. Kajian kualitatif ini dilakukan ke atas dua orang responden yang terlibat dalam bidang pengurusan di industri kejuruteraan.

Kata Kunci : Politeknik, Kemahiran Generik, Kajian Kualitatif

ID: 82

Using Inquiry Based Module in Chemistry Laboratory Work to Enhance Manipulative Skills

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This decade, science and technology education has been given specific attention all at academic level. Malaysia Education Blueprint 2013-2025 states that students must be equipped with the necessary skills to face the challenges of a changing with the application of Science, Technology, Engineering and Mathematics (STEM). This is to meet the need to provide students who competent effectively on a global level. Exposure to scientific skills such as manipulative skills at an early stage is one of the effective methods to provide young people with skills that are very important nowadays. Manipulative skills refer to the ability to use and handle science apparatus and substances correctly while doing an experiment in a laboratory. However, previous studies showing practical work in laboratory are still a host of 'follow the recipe' procedure without the involvement of mental framework or the development of higher-order thinking skills. In other words, the practical work is a 'hands-on' activities rather than 'minds-on'. Recognizing the importance of hands-on laboratory activities for learning science, an approach that is called inquiry based science education (IBSE) approach can help students effectively acquire science process skills. Therefore, this study was conducted to provide added value in teaching in the laboratory through the use of module based on inquiry based science education (IBSE) as it can be an important step to help students to improve the manipulative skills. As this study is at initial phase, in this paper, researcher will explain about the use of inquiry based module in chemistry laboratory work. Researcher hope that this study can contribute to future research on manipulative skills and inquiry based learning especially in chemistry laboratory environment.

Keywords: Manipulative Skills, Inquiry-Based Learning, Chemistry Laboratory

ID: 83

Reasoning Skills among Students: A Meta-Analysis

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Many countries have undergone a paradigm shift in their approach of teaching, learning and assessment where emphasis is heavily placed on thinking skills. This skill is indeed a vital requirement in developing twenty-first century skills among students as there is a need for high levels of thinking, reasoning and collaborating in today's era. In the Malaysian context, there is a current need in elevating reasoning skills among high achievers as the Ministry of Education has realized that high achievers have not been performing excellently in global assessments, specifically. Therefore, this conceptual paper aims at identifying the components of reasoning skills that high achievers face difficulties in when learning Mathematics. From the meta-analysis conducted, two major components of reasoning skills were identified; knowledge reasoning and systemic thinking. Based on these findings from literature, these two components can be used as a learning framework to elevate students reasoning skills.

Keywords: Reasoning Skills; Knowledge Reasoning; Systemic Thinking; High Achievers

ID: 85

Sistem Pengurusan Rekod Dokumen Sekolah Melalui Web Berasaskan Teori Aktiviti

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Sistem pengurusan dokumen yang sistematik diperlukan oleh kebanyakan organisasi dalam pengurusan dokumen fizikal. Antara organisasi yang terlibat adalah institusi pendidikan seperti sekolah yang berdepan dengan lambakan dokumen rasmi seperti surat masuk dan keluar. Justeru, satu kajian berkenaan sistem pengurusan rekod dokumen sekolah (SPeRD) melalui web dijalankan dengan beberapa objektif bermula dengan mengenalpasti keperluan sistem, reka bentuk dan pembangunan sistem seterusnya penilaian sistem. Teori Aktiviti digunakan sebagai kerangka analitikal asas dalam keseluruhan kajian kerana mengandungi enam komponen yang bertepatan dengan konteks kajian iaitu aktiviti manusia di dalam SPeRD. Dengan penekanan enam komponen tersebut, Eight Steps Model (ESM) yang menyediakan lapan persoalan dijadikan sebagai instrumen temu bual bagi mengenalpasti keperluan sistem sebelum dibangunkan. Setelah SPeRD dibangunkan, penilaian secara kualitatif dengan kaedah temu bual dijalankan bersama pentadbir, guru dan staf serta penambahan data kuantitatif menggunakan instrumen soal selidik QUIS. Kajian yang dijalankan di sebuah sekolah di Johorini mendedahkan hasil dapatan dengan respons yang positif daripada pengguna namun beberapa isu telah ditemukan apabila dapatan tersebut dianalisis. Kesimpulannya, dengan pendekatan AT, SPeRD dapat dibangunkan dan diakui praktikal sertamampu membantu pengurusan dokumen di sekolah.

Kata Kunci: Sistem Pengurusan Rekod Dokumen; Teori Aktiviti; *Activity Triangle Model*

ID: 86

Using Non-Participant Observation to Understand How Students Responded to The Construction of Physics Knowledge

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This paper discussed rationals and dilemmas to use non-participant observation as a method for data collection. The purpose of non-participant observation conducted is to understand students' responses toward the construction of physics knowledge. Studies of scientific epistemology development place a great interest to understand the developmental process of scientific knowledge in physics classrooms. Knowledge construction in physics classroom can be assessed from how the content is being sequenced and the quality of the content delivered. The non-participant observation method applied in this study is considered as overt where the students knew the purposes of the observer during the observation process. Through the interaction between students and the knowledge construction, this method provides a great insight as it does not interfere with the natural setting of the phenomenon. Findings from this study showed that the non-participant observation method involves many issues regarding observer's stances during field notes, when, what and how to observe and the purposes it is used to explain the epistemological development.

Keywords: Non-participant Observation, Scientific Epistemology, Knowledge Construction

ID: 87

An Overview of Mental Health among Elementary School Students

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Good mental health is the foundation for individual well-being and the effective functioning of a community. Mental illness may affect anyone and may significantly impair a person's ability to perform daily activities. In Malaysia, mental health of people especially those aged 15 and below are in a worsening trend. It implies that the state of mental health among elementary and lower secondary school students has become an important concern of the society. Although these problems have received increasing widespread recognition by international agencies and government via Ministry of Health and Ministry of Education, the necessary prevention and intervention to improve mental health care in school remain overlooked in Malaysia. Families, schools, and society must work together to detect childhood mental health and develop mental health educational programmes for students. This collaboration is vital in promoting positive mental health among students. Students with good mental health are more successful in school. Students are the future of a nation. There is a need to have a better understanding of the mental health among the elementary school students. Therefore, more information is needed for developing effective prevention and intervention programmes. Prevention and intervention of mental health will help students with mental illness better integrate into society and live a dignified life. This paper focuses on three perspectives, namely conceptualization of mental health, problems on mental health, as well as prevention and intervention of mental health among elementary school students.

Keywords: Mental Health, Intervention, Prevention

ID: 88

Review of Secondary School Students with Learning Difficulties in Geometry

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Despite the increasing demand for proficiency in geometry, local (UPSR, PT3, SPM) and international examinations (TIMSS, PISA) indicate that secondary school students in Malaysia experience difficulty in mathematics as the students perform below the standard level. Secondary school students especially those with learning difficulties struggle in geometry as it is difficult for them. Educators concern that students will lose interest in the subject because they are not excelling in mathematics. With this in mind, the aim of this paper is to identify the characteristics of secondary school students with learning difficulties and presents the methods to ease them succeed in geometry. There are 10 researches have been reviewed; further the findings will be used to design and develop the learning activities to overcome the learning difficulties among students.

Keywords: Learning Difficulties, Geometry, Van Hiele

ID: 91

An Overview of Strategies to Induce Higher Order Thinking Skills and Factors Hindering it in Science Teaching

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There was a high concern to produce higher order thinking individuals in Malaysia. This could be seen in the report of National Education Blueprint 2013-2015 that focused on the Higher Order Thinking Skills (HOTS) development. However, the regress in achievement in TIMMS since 2003 had shown that students are not equipped with HOTS. The HOTS development claimed to be highly connected to the ability of the teacher to integrate aspects of pedagogy, teaching strategy and technology. This paper focused on overview of the literature review of strategies used to enhance higher order thinking skills in science subject and critical analysis on the factors hindering HOTS in classroom.

Keywords: Higher Order Thinking, Science subject, Instructional strategies

ID: 92

Building Cham – Vietnamese Electronic Dictionary

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The Cham people in Vietnam are closely related to other Austronesian people speak Cham, a Malayo-Polynesian language of the Austronesian language family's Chamic subgroup. Cham Script was founded on stone stele in 4th century and the Cham are still using this script system. To ensure preservation of Cham language, this study intends to develop Cham electronic dictionary application product in order to lookup Cham and Vietnamese. The framework of dictionary development includes three components; data, database and evaluation, learning environment design and application products. ADDIE model was employed in the whole development process. Questionnaire with a scale from 1 to 5 is used to measure the evaluation of Cham electronic dictionary, six proposed features of the dictionary were fully agreed on by 70 respondents of Cham people, and seven experts (academic) to evaluate with result has achieved 94.29%. This product is suitable and useful for schools, institutions, training organization in assisting teaching and learning Cham language. This is a Web based dictionary open to world wide access.

Keywords: Cham Dictionary; Cham Vietnamese Dictionary; Cham Script Dictionary

ID: 93

Potential of GeoGebra in Enhancing Teaching and Learning of Algebra

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The goal of designing the future of teaching and learning of algebra in schools from primary level to tertiary level has been a major focus in the algebra curriculum for many years. At the same time, the increased availability of computers and technological tools have changed the content and the way algebra is learned in the classroom. GeoGebra as an open source dynamic mathematics software (DMS), dynamically combine certain features of dynamic geometry software (DGS), computer algebra systems (CAS) and spreadsheet is designed for teaching and learning mathematics. The aim of this paper is to present a conceptual framework of designing teaching and learning of algebra with GeoGebra. This paper introduces algebraic thinking as a guideline to algebraic teaching and learning. Some of the algebraic thinking approaches are briefly described. This paper also introduces GeoGebra and describes the rationality of choosing GeoGebra as the instructional teaching tool. The examples the effectiveness of this software incorporated into these approaches is presented.

Keywords: Algebra, Algebraic thinking, GeoGebra, Teaching and learning

ID:95

Expectations of Students, Advisors and Administrators towards Components of Academic Advising Program Standard

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Academic advising program is a process for promoting intellectual, personal, social and career development of university students. This program is the only planned and structured program available on the campus where all students have the opportunity for one-to-one interaction with academic advisors appointed by the institutions. In many developed countries, standard for academic advising program has been established long time ago and has been playing an important role to academic advisors in understanding standard of good practice in academic advising. In such systems the students' learning and development outcomes are influenced by their participation in academic advising. Thus, the learning and development outcomes can serve as a benchmark for improving, maintaining and evaluating the academic advising programs as well as enhancing the academic advisors' competencies. Academic advising, at Malaysian public universities, has been in existence for more than three decades. However, different universities have different ways of running their academic advising programs. As a result, there is no standard academic advising program available for public universities of Malaysia. In fact, there is no agreement on the standardized components to develop the academic advising standard, leading to difficulties to evaluate the effectiveness of academic advising programs. This study intends to fill the gap by exploring the expectations of students, advisors, and administrators toward academic advising program standard for public higher education of Malaysia. Using a qualitative research approach, the study explores the potential standardized components which can be used to develop academic advising program standard. The findings of this study indicated that there is enormous difference between the different groups of students, ie. local and international students, about the roles of advisors in their academic advising process in Malaysia. Most of the advisors conduct their advisory practice as part of their general working time, advising their students amidst the pressure of high work load and performance indicator requirements. Administrators emphasized the need to establish an academic advising standard in the Malaysian context, diverse in terms of both the local multicultural setting and the presence of international students. However, their opinions about the components of a future standard showed varying ideas and concepts, the dominant trend being the adaptation of international trends to the local values. The results of the study is expected to contribute to the development of academic advising standards for Malaysian public universities.

Keywords: Academic Advising, Educational Goals, Advising Programs

ID: 97

Understanding Factors for Successful Implementation of School-Based Health Strategies: Implications for Treating Problematic Eating Behaviors and Academic Problems

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In general, negative body image and problematic eating behaviors are believed to correlate with adverse and detrimental consequences, one of which is academic performance. This paper provides an overview of the role of school-based health strategies in treating problematic eating behaviors and poor academic performance. This paper also provides a synthetic review of the literature on factors that are crucial for successful implementation of school-based health strategies for the improvement of academic performance and prevention of problematic eating behaviors among school-age children and adolescents. These factors are cultural sensitivity, teacher commitment, environmental and contextual factors. Few databases in the fields of psychology, educational studies and eating pathology, were used to acquire literature on the topic. Conclusions from the literature are drawn that states that schools play a crucial role in shaping and nurturing positive body image and healthy eating behaviors as well as desirable academic performance. Factors such as sensitive to cultural differences, high teacher commitment, and supportive contextual and environmental settings are vital for a successful implementation of the preventive programs. The paper ends with recommendations for future research in terms of exploring variables that may act as moderators (ethnicity, body weight) in this dynamic relationship. This paper also provides some suggestions for educational practice to maintain and improve student's academic performance as well as their overall psychological well-beings.

Keywords: Body Image; Cultural Sensitivity; Body Size Dissatisfaction

ID: 98

Meningkatkan Kemahiran Berfikir Aras Tinggi Dalam Mata Pelajaran Bahasa Melayu Sekolah Rendah Melalui Frog VLE

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Pembangunan tahap pemikiran murid melalui penerapan elemen Kemahiran Berfikir Aras Tinggi (KBAT) amat dititik beratkan bagi memperkasakan pembelajaran Bahasa Melayu. Usaha ini selaras dengan seruan kerajaan dalam mentransformasikan sistem pendidikan negara seperti dalam pengisian perancangan Pelan Pembangunan Pendidikan Malaysia (PPPM) 2013-2025. Oleh itu, KBAT dalam kalangan murid sangat penting bagi memberi peluang kepada mereka menyampaikan idea dan mencuba secara praktikal dalam menyelesaikan sesuatu permasalahan. Kajian ini bertujuan untuk meneroka penerapan KBAT dalam mata pelajaran Bahasa Melayu Sekolah Rendah melalui Frog VLE. Pembelajaran melalui Frog VLE ini berpotensi membaiki KBAT dalam kalangan murid. Kajian ini akan dilakukan dalam tiga fasa. Fasa pertama merupakan fasa tinjauan bagi mengenalpasti sejauhmana penggunaan Frog VLE dalam meningkatkan KBAT, fasa kedua merupakan fasa pembinaan bahan pembelajaran KBAT menggunakan Frog VLE dan fasa ketiga merupakan fasa eksperimental yang bertujuan mengenalpasti bahan pembelajaran yang dibina berupaya meningkatkan KBAT dalam kalangan murid sekolah rendah. Kajian ini diharapkan memberikan sumbangan kepada dunia pendidikan berkaitan kaedah atau pendekatan yang sesuai digunakan untuk meningkatkan Kemahiran Berfikir Aras Tinggi (KBAT) dalam kalangan murid.

Kata kunci : Kemahiran Berfikir Aras Tinggi (KBAT), *Frog VLE*

ID: 99

Overview of Oral Communication Apprehension

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Oral communication apprehension plays a crucial role in determining various behaviors in the communication process. Since there are communication issues which arise due to speech anxiety, the issues need to be dealt with amply so as to ensure that there is no any impediment in communication. The purpose of this paper is to provide a brief overview of the origins and theory about Oral communication apprehension (OCA) including concepts, nature, causes, and the effects of OCA. This would be supported by various research studies carried out by previous scholars. In addition, the review paper also will present some recent study efforts on OCA and number of classroom techniques which can be used to alternate the fear of communication.

Keywords: Oral communication apprehension, Concepts of OCA, EFL learners.

ID: 102

Video Pembelajaran Meningkatkan Prestasi Dan Pemikiran Kritis Pelajar Program Pendidikan Jarak Jauh

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Kajian ini dijalankan untuk melihat bagaimana video pembelajaran dapat membantu meningkatkan pencapaian pelajar pendidikan jarak (PJJ) jauh di Institut Pendidikan Guru (IPG) iaitu pelajar Program Pensiswazahan Guru dalam pembelajaran Teknologi dalam Pengajaran dan Pembelajaran serta meningkatkan pemikiran kritis pelajar. Video pembelajaran sering digunakan dalam PJJ menggunakan kaedah pembelajaran sendiri. Namun ianya kurang digunakan kerana masalah untuk dimuat naik (pensyarah) dan memuat turun (pelajar) ke e-pembelajaran disebabkan fail yang besar dan kemudahan internet yang kurang memuaskan. Beberapa kajian lain yang dijalankan turut melihat video pembelajaran tidak dapat meningkatkan pencapaian dan kemahiran berfikir pelajar kerana kandungan serta aktiviti lebih bersifat sehalu dan kurang interaktif. Kajian ini melibatkan 3 fasa utama iaitu fasa pertama kaedah kajian kes, kedua pembangunan dan ketiga penilaian. Kajian ini melibatkan pelajar-pelajar PPG di 3 buah IPG di Malaysia yang mengambil kursus Teknologi dalam Pengajaran dan Pembelajaran. Dapatan kajian ini diharap dapat membantu pensyarah-pensyarah yang mengajar pelajar PJJ sebagai panduan untuk membangunkan video pembelajaran sebagai inovasi PdP sejajar dengan kemudahan teknologi yang pesat membangun.

Kata Kunci: Video Pembelajaran; Pendidikan Jarak Jauh; Pembelajaran Kendiri; Pemikiran Kritis; Pencapaian

ID: 103

Applying Self-Regulation Models in Online Learning

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Self-regulation can be viewed as a process that can assist students in the learning task to improve learning achievement thus to become a lifelong learners through the ability to plan, monitor and evaluate own learning. Based on previous studies, self regulation learning strategy is usually applied in second language subjects, comprehension task, reading, spelling, Mathematics, and also writing. However, regulation in online learning is difficult to establish hence less studies were found exploring this area. The purpose of this paper is to underline the importance of self regulation in online learning. Self-regulation is found to be important in assisting students to develop their knowledge, skills and strategies and overcome learning difficulties in learning.

Keywords: Self-regulated learning, Online learning, Metacognition

ID: 104

Masalah-Masalah Yang Dihadapi Guru Dalam Penerapan Nilai Karakter Pada Pembelajaran Budaya Alam Minangkabau; Studi Kasus Di Sekolah Dasar X Di Kota Padang

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Artikel ini ditulis berdasarkan penyelidikan mengenai masalah-masalah yang dihadapi guru dalam penerapan nilai-nilai karakter pada pembelajaran Budaya Alam Minangkabau. Ini adalah penyelidikan kualitatif kaedah tinjauan dan pemerhatian. Hasil penyelidikan menunjukkan bahawa permasalahan yang dihadapi guru dalam menerapkan nilai-nilai karakter melalui mata pelajaran Budaya Alam Minangkabau meliputi masalah terkait dengan kekurangan kecekapan/ keupayaan guru menjadi pemimpin dalam pengenalan dan penanaman nilai karakter, kekurangan komitmen / kesedaran dalam memantau tingkah laku pelajar di sekolah, kurangnya perhatian pemerintahan, terutamanya dalam memudahkan guru-guru yang mengajar mata pelajaran budaya Alam Minangkabau. Masalah yang lain yang dihadapi guru ialah latar belakang sosio-budaya ibu bapa adalah berbeza kerana mereka datang dari kawasan-kawasan di luar Sumatera Barat. Key words: Pendidikan karakter; Pembelajaran Budaya Alam Minangkabau

Kata Kunci : Pendidikan Karakter, Pembelajaran Budaya Alam Minangkabau

ID: 107

**Pembelajaran Terarah Kendiri Melalui Pendekatan Pembelajaran Berasaskan Masalah:
Pola Kajian Berkenaan Beberapa Artikel Terpilih**

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Pembelajaran terarah kendiri merupakan antara elemen penting dalam implementasi pendekatan pembelajaran berasaskan masalah. Sehubungan itu, sebanyak tujuh artikel dipilih berdasarkan beberapa kriteria tertentu melalui pengkalan data ISI Web Of Science. Artikel-artikel tersebut dianalisis dalam menjawab tiga persoalan kajian iaitu (i) Apakah pemilihan sampel bagi kesemua kajian? (ii) Apakah pemilihan reka bentuk kajian yang digunakan dalam kesemua kajian? (iii) Apakah persamaan dan perbezaan itipati dan dapatan bagi kesemua kajian? Melalui analisis yang dijalankan didapati sebahagian besar kajian menggunakan reka bentuk kajian kes dan reka bentuk kajian eksperimen. Selain itu, pemilihan sampel bagi kebanyakan kajian tertumpu kepada pelajar jurusan perubatan serta fokus atau isu yang diketengahkan adalah dalam melihat faktor dan kesan implementasi pendekatan pembelajaran berasaskan masalah terhadap pembelajaran terarah kendiri.

Kata Kunci: Pembelajaran Berasaskan Masalah, Pembelajaran Terarah Kendiri

ID: 109

Kemahiran Metakognitif Pelajar Terhadap Penyelesaian Masalah Matematik Bukan Rutin

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Kemahiran metakognitif memainkan peranan yang penting dalam penyelesaian masalah matematik. Bagaimanapun terdapat bukti empirikal yang menunjukkan kurangnya kajian yang mempertimbangkan peranan kemahiran metakognitif dalam menyelesaikan masalah matematik bukan rutin. Justeru, kajian ini dijalankan untuk mengenalpasti kemahiran metakognitif pelajar dan kesannya terhadap penyelesaian masalah matematik bukan rutin. Dengan menggunakan kaedah kuantitatif, seramai 304 orang pelajar tingkatan empat di daerah Johor Bahru telah terlibat dalam kajian ini. Self Monitoring Questionnaires (SMQ) digunakan untuk mengumpul data dan dianalisis dengan menggunakan analisis statistik diskriptif dan inferensi iaitu melibatkan kekerapan, peratusan, min, ujian Mann-Whitney U dan ujian Kruskal-Wallis H. Keputusan kajian mendapati tahap pencapaian pelajar terhadap penyelesaian masalah matematik bukan rutin berada pada tahap sangat rendah. Selain itu, dapatan menunjukkan tidak terdapat perbezaan kemahiran metakognitif antara jantina malah berbeza terhadap tahap pencapaian pelajar dalam menyelesaikan masalah matematik bukan rutin. Kesimpulannya, kajian ini mencadangkan kemahiran metakognitif perlu diberi penekanan dalam proses penyelesaian masalah matematik bukan rutin.

Kata Kunci: Kemahiran Metakognitif, Masalah Bukan Rutin, Penyelesaian Masalah Matematik

ID: 112

Aktiviti Penilaian Dalam Makmal Menggunakan Peta Konsep Dalam Menjana Kemahiran Berfikir Aras Tinggi : Satu Kerangka Teori

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Perubahan dunia yang pesat telah menuntut kepada transformasi pendidikan, bukan sahaja dari aspek kurikulum dan pedagogi, malah komponen pentaksiran dan penilaian juga perlu dititikberatkan. Matlamat pendidikan abad ke-21 adalah untuk menghasilkan pelajar yang mempunyai kefahaman mendalam terhadap sesuatu ilmu pengetahuan serta mempunyai kemahiran berfikir aras tinggi yang diharap dapat melahirkan tenaga kerja yang cemerlang. Aktiviti makmal penting dalam mempelajari ilmu Kimia yang terdiri daripada pelbagai konsep abstrak. Melalui aktiviti ini, pelajar seharusnya lebih memahami dan menguasai sesuatu topik pembelajaran seterusnya membantu kepada rangsangan kemahiran berfikir aras tinggi. Bagi mengukur hasil pembelajaran aktiviti tersebut, aktiviti penilaian merupakan aspek penting yang perlu ditekankan. Peta konsep merupakan salah satu alat penilaian pembelajaran yang dikatakan dapat membantu pelajar memvisualkan konsep-konsep yang telah difahami serta menjadi platform kepada rangsangan KBAT. Maka, suatu kerangka teori diperlukan untuk mendasari kajian ini. Pada asasnya, teori konstruktivisme merupakan tunjang kepada aktiviti penilaian dalam makmal yang diharapkan dapat meningkatkan kefahaman konseptual yang mendalam dan diperlukan dalam menjana kepada peningkatan kemahiran berfikir aras tinggi pelajar.

Kata Kunci: Peta Konsep, Aktiviti Penilaian, Aktiviti Pembelajaran Makmal

ID: 114

Pendidikan Karakter Sejagat Dan Pengaruh Teknologi

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Pendidikan adalah aspek yang penting dalam perkembangan sumber manusia. Secara umumnya pendidikan karakter ditekankan dalam Falsafah Pendidikan Negara, dan secara khususnya diintegrasikan dalam pendidikan Islam, pendidikan Moral, pendidikan Sivik dan aktiviti ko-kurikulum. Pendidikan karakter tidak dinilai secara langsung dan formal serta tidak diambilkira dalam sistem peperiksaan di Malaysia. Peperiksaan merupakan kaedah utama yang digunakan untuk mengukur pencapaian pelajar selama ini. Pelan Pembangunan Pendidikan Malaysia 2013 hingga 2025 yang telah digariskan menekankan anjakan dalam pendidikan iaitu pendidikan modal insan. Pendekatan yang digunakan dalam pelan ini adalah garapan meliputi pelbagai perspektif daripada masyarakat, di kalangan pakar dan agensi antarabangsa untuk menilai dan mentaksir prestasi sistem pendidikan Malaysia (Ringkasan Eksekutif Pelan Pembangunan Pendidikan Malaysia 2013-2025, Pendidikan Prasekolah hingga Lepas Menengah). Terkini keruntuhan akhlak dan moral generasi masakini amat membimbangkan. Teknologi juga boleh dilihat sebagai penyumbang kepada perkembangan pendidikan karakter pelajar samada dari sudut positif dan negatif. Jangkaan hasil dari kertas ini adalah untuk menghasilkan satu instrumen pendidikan karakter. Seterusnya membina profil karakter dan satu kerangka pelaksanaan penilaian pendidikan karakter yang bersesuaian serta mengkaji hubungkait penggunaan teknologi dalam perkembangan pendidikan karakter.

Keywords: Pendidikan, Pendidikan karakter, Teknologi

ID:116

An Automatic Student Modeling Approach to Understand Students' Learning Styles from Learning Behavior Patterns

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Learners always have their learning preferences according to their different learning processes. Different adaptive learning systems attempt to know about different aspects of students, including domain knowledge, learning styles, cognitive styles, emotions, educational system. Many researchers are interested in automatically students modeling, to get more accurate information about learners' learning style compared with the traditional questionnaires approaches. This paper proposes a new method to detect the learners' learning styles based on learners' learning behavior patterns. Direct link construct by mathematics model between learners' learning behavior patterns and their learning style preferences. By utilizing the proposed approach, students' learning styles can be identified automatically and be used for supporting students' learning.

Keywords: Learning Style, Learning Behavior Pattern, Student Modeling

ID: 117

Pendekatan Pengajaran Berasaskan Tema Dalam Pengajaran Kefahaman Membaca Bahasa Inggeris Di Makassar, Indonesia

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Dua jenis pendekatan yang biasa digunakan dalam pengajaran kefahaman membaca bahasa Inggeris adalah pendekatan pengajaran berasaskan tema (theme-based instruction (TBI)) dan pendekatan terjemahan tatabahasa (Grammar translation (GT)). Penggunaan kandungan kurikulum berasaskan budaya tempatan sebagai sumber kandungan pengajaran digunakan dalam menjalankan kedua-dua pendekatan berkenaan kerana ianya dianggap boleh menggalakkan kefahaman pelajar dalam sesuatu pelajaran. Tujuan kajian adalah untuk membandingkan pendekatan TBI dan pendekatan GT dalam meningkatkan kefahaman membaca bahasa Inggeris di sekolah menengah pertama (SMP) di Makassar, Indonesia. Populasi kajian iaitu pelajar kelas 9 yang terbahagi dalam 9 kelas di SMP Negeri 13 Makassar. Pengkaji mengambil 2 kelas sebagai sampel kajian, satu kelas sebagai kumpulan kawalan diajar dengan menggunakan pendekatan GT dan satu kelas yang lain sebagai kumpulan rawatan diajar dengan menggunakan pendekatan TBI. Kajian ini merupakan kajian kuasi eksperimen dengan menggunakan reka bentuk kumpulan kawalan tidak serupa (nonequivalent control group design). Data diperolehi melalui instrumen bahan pelajaran, ujian berbentuk soalan pelbagai pilihan, soal selidik, dan temu bual separah berstruktur. Data yang diperolehi dianalisis dengan menggunakan analisis deskriptif, analisis inferens, dan analisis kandungan. Keputusan kajian menunjukkan bahawa penggunaan pendekatan TBI memberi pengaruh lebih kuat kepada peningkatan pencapaian prestasi kefahaman membaca bahasa Inggeris berbanding dengan pendekatan GT. Hasil temubual pula mendapati rendahnya kefahaman membaca pelajar di kalangan pelajar adalah kerana kurang pengetahuan perbendaharaan kosa kata.

Kata Kunci: Pendekatan Theme-Based Instruction, Pendekatan Grammar Translation, Kefahaman Membaca Bahasa Inggeris

ID: 119

Kesesuaian Sudut Kayu Hoki Ketika Melakukan Kemahiran Overhead Pass

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Kemahiran overhead pass dalam sukan hoki adalah kemahiran yang tinggi, namun ramai pemain tidak mampu menguasai kemahiran overhead pass. Kebanyakan pemain kurang kemahiran untuk melakukan overhead pass adalah kerana sudut yang tidak sesuai menjadikan bola yang dihantar tidak cukup tinggi. Kelajuan bola juga memainkan peranan penting yang turut mempengaruhi jarak bola. Tujuan kajian ini adalah untuk mengetahui kesesuaian sudut contact dan kelajuan bola semasa melakukan overhead pass menggunakan kaedah statik. Instrumen yang digunakan adalah Ujian Ketepatan dan Ujian Kelajuan yang telah direka oleh penyelidik sendiri. Seorang subjek telah dipilih untuk menjalani ujian ini. Sebanyak 10 percubaan pada setiap jarak perlu dilakukan oleh subjek. Data ujian yang diperolehi di analisis dengan menggunakan Kinovea dan Statistical Package for Social Science (SPSS) 20.0. Hasil keputusan menunjukkan terdapat perbezaan yang signifikan terhadap kedua-dua ujian yang dijalankan. Keputusan bagi Ujian Ketepatan menunjukkan terdapat perbezaan yang signifikan pada jarak yang ditetapkan dimana pada jarak 20 meter, purata sudut adalah ($\text{min} = 71.5^\circ \pm \text{SD} = 2.12$), jarak bagi 30 meter ($\text{min} = 84.2^\circ \pm \text{SD} = 1.47$), dan 40 meter ($\text{min} = 100.7^\circ \pm \text{SD} = 2.31$). Manakala bagi Ujian kelajuan terdapat perbezaan yang signifikan pada jarak 20 meter ($\text{min} = 8.79 \text{ ms}^{-1} \pm \text{SD} = .397$), 30 meter, ($\text{min} = 12.93 \text{ ms}^{-1} \pm \text{SD} = .298$), dan 40 meter ($\text{min} = 14.14 \text{ ms}^{-1} \pm \text{SD} = .802$). Daripada keputusan ujian, boleh disimpulkan bahawa sudut contact yang terbaik adalah pada 100.7° kerana pada sudut ini bola yang dihantar adalah yang paling jauh iaitu pada jarak 40 meter. Selain itu, pada sudut ini juga kelajuan bola adalah paling tinggi iaitu 14.14 ms^{-1} .

Kata Kunci: Sudut kayu, Sukan hoki

ID: 120

Toward Communicative Language Teaching: A Review of The Language Teaching Approaches In The ELT Classes

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In the recent decades a significant change has been happened from focusing on linguistic structure to the students' needs in the language teaching methods. Communicative Language Teaching (CLT) is associated with the instructional activities that can improve students' capabilities for a perfect communication in the second language. CLT is considered an ideal model of language instruction, in that the goal of teaching refers to the English use as a medium of communication. In this review study, the researchers tried to represent a brief history of language teaching in the 20th century and the problems of CLT instruction in the Asian countries. Using CLT in the Asian countries has faced several problems that influenced its efficiency in the Asian countries. This review study chiefly planned to assess the problems which may hinder perfect CLT instruction in the Asian countries. It is believed that the English language instruction which takes communicative competence as its constant goal is not appropriate for the Asian countries, in that students' engagement to social communications with native English speakers are few. Hopefully, this paper is helpful for the researchers in the field of foreign/second language teaching, curriculum designers, administrative executives and curriculum designers in the Asian countries.

Key words: Communicative Language Teaching (CLT), Learner-centered approach of language instruction, English as a Second Language (ESL)

ID: 121

Pembinaan E-Quran Dalam Pembelajaran Bidang Al Quran

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Abstrak

Artikel ini adalah berkaitan kajian bagi mengenalpasti faktor pemilihan alat pengajaran multimedia (APM) untuk pembinaan perisian e-Quran dalam kalangan guru Pendidikan Islam Sekolah Kebangsaan. Empat objektif dalam kajian ini ialah mengenalpasti APM dalam pembinaan e-Quran yang kerap digunakan guru Pendidikan Islam semasa penyediaan bahan bantu mengajar bagi pembelajaran maya, mengenalpasti faktor pemilihan berkenaan, mengenalpasti teori rekabentuk instruksional yang sesuai dengan APM e-Quran dan mengenalpasti faktor pemilihan teori tersebut. Seramai 30 orang guru Pendidikan Islam sekolah kebangsaan terlibat sebagai responden dalam kajian ini. Kajian kualitatif ini menggunakan rekabentuk temubual berstruktur. Dapatan kajian menunjukkan hampir keseluruhan responden memilih APM utama untuk pembinaan e-Quran dengan cara menggabungkan MS Power Point dan al Quran in Words berdasarkan teori rekabentuk instruksional Dick & Carey untuk penyediaan bahan bantu mengajar Bidang al Quran. Kajian juga mendapati faktor yang mendorong dalam pemilihan APM bagi pembinaan e-Quran ini adalah kerana ianya mudah digunakan, tidak melibatkan aspek teknikal, mudah dihasilkan dan ketepatan ayat al Quran yang terhasil dari gabungan dua APM ini. Gabungan dua APM yang dipilih dalam pembinaan e-Quran juga didapati mampu memenuhi standard kurikulum yang ditetapkan. Manakala kaedah pelaksanaan yang dipilih oleh para responden ialah Kaedah Talaqqi Musyafahah dengan meletakkan guru sebagai fasilitator semasa pembelajaran al Quran menggunakan perisian e-Quran kerana hukum syarak menetapkan pembelajaran al Quran memerlukan guru dan perisian e-Quran sebagai bahan bantu mengajar yang diharuskan. Penemuan penting melalui kajian ini ialah, pembinaan perisian e-Quran menggunakan teori rekabentuk instruksional Dick & Carey boleh digabungkan dengan penggunaan APM yang tepat serta pemilihan kaedah Talaqqi Musyafahah sebagai amalan pengajaran guru mampu memenuhi kehendak dan konsep pembelajaran Bidang al Quran.

Kata Kunci: e-Quran; e-pembelajaran; kurikulum pendidikan Islam.

ID: 122

Penggunaan *Game-Based Learning* Bagi Meningkatkan Kemahiran Penyelesaian Masalah Kreatif Dalam Matematik

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Pembangunan elemen kreatif dan inovatif dalam melahirkan modal insan adalah aspek utama yang ditekankan dalam Rancangan Malaysia ke-9. Penyelesaian masalah adalah pendekatan yang digunakan dalam pembelajaran matematik dan kreativiti merupakan tunjang utama kepada penyelesaian masalah. Penyelesaian masalah kreatif biasanya dikaitkan dengan penyelesaian masalah bukan rutin. Namun begitu, pelajar menyatakan bahawa penyelesaian masalah bukan rutin adalah sesuatu yang rumit. Kajian lepas telah menunjukkan bahawa *Game-Based Learning* (GBL) adalah satu kaedah pengajaran yang efektif dalam meningkatkan motivasi pelajar bagi meningkatkan kreativiti dalam penyelesaian masalah matematik. Artikel ini akan membincangkan bagaimana GBL dapat membantu dalam meningkatkan kreativiti pelajar dalam penyelesaian masalah matematik.

Kata Kunci: *Game-Based Learning*, Kreativiti, Penyelesaian Masalah, Matematik

ID: 123

Penilaian Kendiri Pelajar Terhadap Aspirasi Murid Menerusi Penglibatan Dalam Aktiviti Kokurikulum Badan Beruniform

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Penilaian sendiri merupakan salah satu rekabentuk penilaian yang sesuai dan berkesan kepada pelajar sebagai proses untuk melatih diri mereka supaya lebih mengambil berat dan bertanggungjawab terhadap pembelajaran mereka. Walaubagaimanapun, penggunaan instrumen penilaian sendiri pelajar jarang diaplikasikan dalam kaedah penilaian bukan akademik terutamanya dalam menilai penglibatan pelajar dalam kokurikulum. Oleh itu, fokus kajian adalah untuk menambahbaik pentaksiran sedia ada dengan membangunkan satu instrumen penilaian sendiri pelajar dalam menilai aspirasi murid melalui aktiviti kokurikulum di sekolah. Kajian ini melibatkan lima buah sekolah yang melaksanakan Pentaksiran Aktiviti Jasmani Sukan dan Kokurikulum (PAJSK) mewakili sekolah harian biasa dan sekolah berasrama penuh di sekitar Johor Bahru. Proses pembangunan instrumen dilaksanakan mengikut prosedur asas yang merangkumi sepuluh langkah dan dibahagikan kepada tiga fasa utama. Fasa pertama merupakan fasa pembinaan dan penilaian item yang merangkumi proses mengenalpasti tujuan kajian dan kumpulan sasaran, mentakrif konstruk, membina item, dan mendapatkan kebolehpercayaan item bagi menentukan kesesuaian konstruk. Fasa kedua pula melibatkan fasa kajian rintis dimana draf instrumen diedarkan kepada pelajar dan dianalisis. Pengkaji akan membuat semakan semula item dan menambahbaik instrumen sebelum fasa terakhir iaitu kajian sebenar dilaksanakan. Instrumen yang dibina melibatkan enam konstruk berdasarkan aspirasi murid yang perlu dicapai oleh setiap pelajar. Model Pengukuran Rasch digunakan bagi menganalisis kesahan dan kebolehpercayaan hasil dapatan kajian rintis dan sekali lagi digunakan pada fasa akhir iaitu untuk mendapatkan kesahan dan kebolehpercayaan instrumen sebenar.

Kata Kunci: Penilaian Kendiri, Aspirasi Murid, Kokurikulum

ID:127

Penggunaan Teknologi Dalam Pembelajaran Kimia

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Kimia terdiri daripada konsep-konsep kompleks dan abstrak yang sukar dipelajari. Pembelajaran yang menggalakkan proses pemikiran dan pengalaman secara aktif adalah perlu bagi menggalakkan penjana idea dan pemahaman konsep kimia dengan berkesan. Integrasi teknologi telah banyak digunakan untuk meningkatkan penglibatan pelajar, meningkatkan kemahiran berfikir aras tinggi (KBAT) serta meningkatkan keupayaan visualisasi molekul pelajar bagi pembelajaran kimia. Penggunaan sistem pengurusan pembelajaran (LMS) seperti Moodle, perbincangan dalam talian, animasi dan simulasi telah berjaya meningkatkan keberkesanan pembelajaran dan pengajaran (PdP) namun, perincian terhadap ciri-ciri teknologi tersebut bagi pembelajaran kimia masih kurang dibincangkan. Kertas konsep ini membincangkan penggunaan dan ciri-ciri teknologi yang menyokong pembelajaran kimia bagi meningkatkan pemahaman pelajar terhadap kimia.

Kata kunci: Penggunaan Teknologi, Pembelajaran Kimia, Sistem Pengurusan Pembelajaran (LMS), Animasi

ID: 128

Learning Chemical Reaction Via Augmented Reality Program

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The possibility of using Augmented Reality (AR) program as supplementary material in learning chemistry is evaluated in this paper. Chemistry is regarded as difficult to learn due to abstract nature of the subject. The content learning of the subject comprises multiple levels of representation, which challenge the conceptual understanding and problem solving of a student. This study is trying to identify the difficulty of learning chemistry particularly in acids and bases topic in term of conceptual understanding and algorithmic problem solving. Students are known to consistently make the mistake of writing the symbol of chemical formulas and also confused between the use of subscript and coefficient of a chemical formula. These eventually lead to wrong stoichiometry in balancing the chemical equation. The mistakes snowball into bigger problems when students are not able to understand the chemical equation in term of the algorithm and also conceptual. In order to address the issues, students' understanding regarding the chemical reaction of acids and bases should be investigated to elucidate student misconception if any in order to suggest suitable features for learning acids and bases chemical reaction using the AR program. As the issue is considered prevalent, the need of an effective and promising solution is critical, thus AR should be evaluated as a supplementary teaching aid. AR able to help students in visualizing the microscopic part of the chemical reaction hence should promote a correct understanding of the particular chemical reaction. The technology is considered recent and the application in chemistry field has been reported. However in chemical reaction learning, data supporting the effectiveness of the AR program is still insufficient. The effectiveness of the program towards students' algorithmic problems solving and conceptual understanding in the acids and bases topic can be investigated. The results from the study should suggest the significance of the AR program in learning chemical reaction and equation in chemistry.

Keywords: Augmented Reality, Misconception, Chemical Reaction

ID: 129

Tugasan Pengutaraan Masalah dalam Pendidikan Matematik

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Pengutaraan masalah matematik merupakan dimensi baru dalam bidang pendidikan matematik dan ia boleh digunakan oleh guru sebagai salah satu alternatif kaedah pengajaran dan pembelajaran yang sedia ada. Guru sebagai fasilitator seharusnya dapat menyediakan tugas pengutaraan masalah matematik yang dapat mencabar pemikiran pelajar. Kertas kerja ini bertujuan untuk membincangkan beberapa kajian yang berkaitan dengan klasifikasi tugas pengutaraan masalah matematik. Potensi yang ada dalam tugas pengutaraan masalah matematik dapat mendorong guru untuk menggunakannya dalam persekitaran pengajaran dan pembelajaran matematik.

Keywords: Tugas Pengutaraan Masalah; Kaedah Pengajaran; Pendidikan Matematik.

ID: 130

Pelaksanaan Model Penasihat Akademik di Universiti Awam Malaysia

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Di pengajian tinggi Malaysia, program penasihat akademik telah wujud lebih daripada tiga dekad yang lalu. Program ini memberikan banyak manfaat kepada pelajar, fakulti dan pentadbiran universiti. Melalui program ini, penasihat akademik membantu pelajar dalam pencapaian akademik, perkembangan individu dan pembangunan kerjaya. Walaubagaimanapun, setiap universiti mempunyai model penasihat yang berbeza dalam menguruskan program penasihat akademik. Dengan menggunakan meta-analisis terhadap kajian literatur, kertas kerja ini membincangkan beberapa model penasihat akademik yang digunakan di peringkat pengajian tinggi. Untuk mengenalpasti model penasihat akademik di universiti awam Malaysia pula, analisis dokumen dijalankan terhadap tiga buah universiti awam Malaysia iaitu Universiti teknologi Malaysia (UTM), Universiti Tun Hussein Onn Malaysia (UTHM) dan Universiti Teknikal Malaysia Melaka (UTeM). Perbincangan kajian menyentuh kepada kesesuaian model; fungsi model; kekuatan dan batasan model; dan tanggungjawab pelajar, penasihat akademik, dan pentadbiran universiti dalam memastikan program berjalan dengan lancar. Kertas kerja diakhiri dengan perbincangan terhadap kesan model penasihat kepada pentadbiran universiti di insititusi pendidikan tinggi awam Malaysia.

Katakunci: Model Penasihat Akademik, Program Penasihat Akademik, Standard Program Penasihat Akademik

ID: 131

Kreativiti Dalam Pengajaran Dan Pembelajaran Sains

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Masyarakat moden kini memerlukan individu yang aktif, bertanggungjawab, dapat menyelesaikan masalah dan membuat keputusan yang betul dan dapat menghadapi cabaran dalam dunia pekerjaan dan terlibat secara berkesan dalam masyarakat dan di tempat kerja. Mereka bukan sahaja perlu belajar tentang ilmu pengetahuan tetapi pada masa yang sama perlu diterap dengan kemahiran khusus untuk menghadapi cabaran masa hadapan termasuk kreativiti. Atas dasar itu, pelbagai strategi telah digunakan oleh penyelidik terdahulu bagi melahirkan pelajar yang mempunyai kemahiran tersebut. Oleh itu kertas kerja ini akan membincangkan tentang kreativiti, dimensi kreativiti, serta pemupukan kreativiti dalam pengajaran dan pembelajaran sains.

Kata Kunci: Kreativiti, Kreativiti Saintifik, Pendidikan Sains

ID: 133

Systematic Review of the Literature on Cognitive Load Management through Collaborative Learning Techniques: A Case for Peer Instruction

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Recent studies in cognitive psychology and learning has focused on CL management because of its effects on learning and collaborative learning techniques have been identified as ways by which learners' cognitive load can be managed for effective learning. However, the factors of collaborative learning that are critical to CL management have not been fully discussed. Information is also scarce on which techniques are capable of achieving CL management best. This study, through a systematic review of the literature, focuses on identifying the factors of collaborative learning responsible for managing cognitive load and the techniques most effective at doing this. It further leverages on the findings to make a case for Peer Instruction (PI) as a technique of choice in a modern classroom. Searches were conducted in relevant database for peer-reviewed studies in higher education within the last 5 years. Based on relevant search strings, a total of 233 articles were returned. Abstract screening yielded 180 articles which on further screening identified 13 groups of collaborative learning techniques which were examined for classroom application and implementation procedures to identify how they foster cognitive load management. Techniques employing the flipped classroom and blended learning modes are adjudged higher in CL management than those using only face-to-face or only online modes. Cognitive load sharing and reduction of intrinsic load are also identified as the most critical factors for CL management. Techniques that provide opportunities for the pre-teaching and segmenting principles of CL management provide the best conditions for effectiveness. The Peer Instruction technique was discussed as a technique that leverages on peer-support and blended learning modes in a flipped classroom.

Keywords: Collaborative learning, Cognitive load, Peer Instruction, Just-in-Time-Teaching, JiTT, Intrinsic load

ID: 135

Mobile Learning as an Alternative Paradigm in Malaysian School Education System: A Review

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Mobile devices are becoming much more popular now especially in enhancing the learning interest among the students to scavenge the gist of the knowledge. Prolonged to the concept of 21st century education system, students pragmatically have to comfy their learning through the Internet without delimitation of time and location. A quality product of mobile learning should stimulate the immersion of thinking process in connecting the contents with the students' experiences. As to suit the needs of the new generation today, rigorous research on this niche area must be conducted in order to mould the suitable guidelines to the production these mass web oriented learning. Discussion of this research could visualise the concept of mobile learning in depth in educational purposes. It will serve the Malaysian education society to draw the students' potential side of interpersonal skill in enhancing and develop their knowledge mastery. This paper is expected to explore some ideas and techniques to improve the content delivery of knowledge to the students in Malaysia.

Keywords: Mobile learning, M-learning, Malaysian education, Education paradigm, Learning, Educational technology, Education

ID: 137

Social Support and Subjective Well Being among Emerging Adolescents

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By early 21st century, the development phase among the emerging adolescents has been concerned. The emerging adolescents were exposed to various kinds of development experiences compared to the previous generation. Therefore, the aim of the study wass to identify the social support and subjective well-being factors which can contribute towards the development phase of emerging adolescents. A total of 200 university students were participated as emerging adolescent respondents. The data were collected by using convenient sampling technique. All respondents were asked to complete Social Support Scale (SSC) and Flourishing Scale (FS) instrument. The data were analyzed using Statistical Package for Social Sciences (SPSS) version 16. The results showed there was a significant correlation between social support and subjective well being among the emerging adolescents. This study has great implications for counsellors and educators to identify which factors were significantly related to enhance the development transition among emerging adolescents.

Keywords: Social Support, Subjective-Well Being, Emerging Adolescents

ID: 139

Konsep Alternatif Pelajar Dalam Topik Haba

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Fizik merupakan mata pelajaran yang kompleks dan abstrak. Bagi menyelesaikan masalah harian, kefahaman terhadap mata pelajaran ini adalah diperlukan. Haba merupakan topik di dalam Fizik yang mencabar untuk difahami. Pelbagai konsep alternatif dimiliki pelajar sebelum mempelajari topik ini. Konsep alternatif yang dimiliki pelajar menjadi penghalang kepada mereka dalam memahami konsep saintifik yang dipelajari di dalam kelas. Antara konsep alternatif dalam topik Haba yang dimiliki pelajar adalah kesukaran membezakan antara suhu dan haba, tidak dapat menjangkakan suhu apabila dua sampel yang berbeza dicampurkan dan tidak memahami peranan haba pendam semasa perubahan fasa. Kajian lepas telah mencadangkan pelbagai kaedah pengajaran seperti teks perubahan konsep, demonstrasi dan analogi bagi mengatasi masalah ini. Oleh itu, kertas konsep ini akan membincangkan kajian lepas dalam konsep alternatif bagi tajuk haba dan pelbagai kaedah pengajaran dalam topik ini.

Kata Kunci:Konsep Alternatif; Haba; Kaedah Pengajaran

ID: 140

Model Amalan Refleksi: Satu Kajian Perbandingan

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Amalan refleksi merupakan sebuah amalan yang membolehkan pendidik untuk melaksanakan penilaian sendiri terhadap proses pengajaran dan pembelajaran yang telah dilakukan. Menerusi amalan refleksi ini juga pendidik dapat menghasilkan sebuah refleksi pengajaran yang kritikal dan bermakna berpanduan kepada beberapa model amalan refleksi yang telah dikemukakan oleh para penyelidik. Justeru itu, kertas kerja ini mengemukakan sebuah kajian perbandingan terhadap beberapa model amalan refleksi yang terkini. Model-model tersebut adalah Model kitaran ALACT, Model ONION, Model Refleksi CORE, Model Kitaran Refleksi Expanded dan Model Refleksi Berpaksikan Pengetahuan Pedagogi Kandungan Sains.

Keywords: Refleksi; Amalan Refleksi; Model Amalan Refleksi

ID: 142

Encourage Student to Enhance Creative Thinking through Socratic Method with Technology Approach

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Students whom wish to master high-level thinking skills, creative thinking is one aspect that should be prioritized. Creative thinking in particular is intended to diversify the solution of a problem to suit the current situation. If a student is unable to find an alternative solution, it shows that they have not been able to achieve the higher-order thinking. Creative thinking can be encouraged through the use of Socratic learning methods with technology approach. The process of questioning by provoking; the Socratic methods can improve students' creative thinking. This paper will describe how creative thinking can be enhanced through the Socratic method of learning with technology approach based on analysis of previous studies. Based on the findings of the analysis of these studies; a specific models to enhance creative thinking by using Socratic methods through technology will be produced.

Keywords: Creative Thinking, Socratic Method, Socratic with Technology

ID: 143

A Principle That Confides the Use of Gamification in E-Learning for Secondary Schools

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Implementing e-learning or electronic learning is a rampantly used method in the teaching and learning process in schools today. This method has gradually been introduced in the education system in line with the constant changing of the education landscape of the 21st century. Yet as this method eventually reaches its saturation point among students, a different method needs to be injected into e-learning. Game based learning, serious games and gamifications are methods that have been infused into e-learning to make it more engaging for the students. Yet as gamification only involves the elements of games such as points, badges and leader board, the usage in teaching and learning process can be undertaken easier in comparison to game based learning and serious games. This paper suggests how game principles such as Player types can be used to integrate gamification into e-learning.

Keywords: Gamification; E-learning; Game Principles

ID: 145

Tingkah Laku Delinkuen Dalam Kalangan Pelajar Sekolah Menengah di Johor Bahru: Suatu Analisis Literatur

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Tingkah laku delinkuen bermaksud tingkah laku yang dianggap berlawanan dengan norma-norma masyarakat, undang-undang, hukum agama dan tidak bermoral serta tidak dapat diterima yang dilakukan oleh pelajar. Aspek tingkah laku delinkuen dalam kalangan pelajar ini melibatkan aspek fizikal, verbal, seksual dan anti sosial. Delinkuen juga melibatkan kelakuan yang menyimpang secara signifikan daripada norma-norma yang ditentukan oleh individu dalam status sosial, ia tidak dapat dipelihara secara abstrak tetapi perlu dikaitkan dengan norma-norma yang dianggap oleh masyarakat sebagai munasabah dan 'morally binding' bagi orang menduduki status yang berlainan. Kelakuan yang melanggar jangkaan yang diinstitusikan, iaitu jangkaan yang dikongsi dan diiktiraf sebagai sah dalam sesuatu sistem sosial. Kelakuan mengikut arah yang tidak dipersetujui, yang bertentangan dengan norma dan darjatnya melebihi had toleransi sesuatu masyarakat. Dalam menangani kemelut tingkah laku delinkuen dalam kalangan pelajar, semua pihak perlu mengambil bahagian dalam usaha menangani perkara ini. Ini kerana jika sekiranya perkara ini tidak ditangani dengan segera, kemungkinan besar apa yang diharapkan kepada mereka sebagai penerus bangsa dan negara akan berkubur begitu sahaja. Kajian-kajian terdahulu berkenaan tingkah laku delinkuen juga telah dijalankan, namun perbezaan dengan kajian penulis pada kali ini ialah penulis lebih memfokuskan kepada pelajar-pelajar yang telah dikenal pasti bertingkah laku delinkuen serta melihat kepada tingkah laku dan gaya asuhan ibu bapa. Oleh yang demikian, diharapkan kertas konsep yang disediakan ini akan dapat memberi gambaran yang lebih jelas dan tepat tentang permasalahan serta usaha penyelesaian tingkah laku delinkuen dalam kalangan pelajar sekolah sebagai panduan kepada ibu bapa, guru, pengurusan sekolah dan pihak-pihak yang terlibat.

Keywords: Tingkah Laku Delinkuen, Pelajar, Gaya Asuhan Ibu Bapa

ID: 146

A Review on Use of Social Media in Teaching and Learning

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Online learning are rapidly evolving in educational uses through social media. Previous research has identified the problem occurred where the guidance for appropriate use of social media is needed so that can embark more effective and efficient learning environment. Social media has been shown to have a positive impact towards learner hence making the process of teaching and learning more meaningful. This is because social networking tools can provide opportunities for students to find information, collect their own material, communicate and interact towards each other. Therefore, this concept paper reviews the use of online learning through social media conducted by previous researchers. Besides, the advantages and disadvantages of implementing social media in teaching and learning also beeing reviewed. This review paper describe the use of online learning through social media and also its pros and cons compared to traditional media. As the conclusion, results from the previous research shows that, online learning through social media have a good feedback and advantages that can inline in education purposes.

Keywords: Social media; Online learning; Learning environment

ID: 147

Alternative Conception in Learning Science: A Critical Review

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Alternative conception is always a serious pedagogical problem for many teachers because the students have their own conceptions on the scientific concepts they are expected to learn. This is attributable to their conceptions are greatly influenced by their everyday experience. However, there are many past findings also reveal that not only the students have alternative concepts on what they have learned, the teachers as well. If this continues to happen, the students are expected to encounter the similar problem when they further their study at an institution of higher learning in the future. Therefore, this paper is going to review whether the similar problem will keep exist when the students reach university level, or otherwise and to identify what type of test is a better approach to diagnosing alternative conception among students, as well as to recommend some strategies to solve it. Apart from that, this paper will also discuss why alternative conception is an issue that need to be taken seriously in Malaysia.

Keywords: Alternative Conception; Scientific Concept; Diagnostic Test.

ID: 148

Metod Pengajaran Guru Bagi Meningkatkan Kemahiran Menyelesaikan Masalah Dalam Fizik

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Antara tujuan utama kurikulum fizik ialah untuk membangunkan kemahiran menyelesaikan masalah di kalangan pelajar tetapi ianya merupakan suatu tugas yang kompleks dan kritikal dalam pembelajaran pelajar. Namun begitu hingga kini, ia masih terus diusahakan dan terus menjadi agenda utama dalam bidang pendidikan. Kajian-kajian lepas menunjukkan tahap kemahiran menyelesaikan masalah Fizik dalam kalangan pelajar di Malaysia adalah masih lemah. Walau bagaimanapun, pelbagai inisiatif dan usaha telah dilaksanakan untuk meningkatkan kemahiran menyelesaikan masalah ini. Salah satu elemen yang dapat membantu pelajar dalam meningkatkan kemahiran ini ialah metod pengajaran guru. Oleh itu, kertas konsep ini akan membincangkan beberapa metod pengajaran guru dalam subek Fizik bagi membantu untuk meningkatkan kemahiran menyelesaikan masalah dalam kalangan pelajar.

Kata Kunci: Kemahiran Menyelesaikan Masalah, Metod Pengajaran, Fizik

ID: 149

Implimentasi Pendidikan Pembangunan Lestari Melalui Kimia Hijau Secara Informal – Cabaran dan Peluang

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Kimia hijau merupakan pendekatan ke arah pendidikan berteraskan pembangunan lestari, PPL yang mampu mendidik para pelajar ke arah penekanan konsep menuju kepada kehidupan yang lestari. Kimia hijau menyediakan satu platform pendidikan kepada pelajar ke arah penyelesaian secara saintifik, bagi menangani punca-punca utama pencemaran alam sekitar bertujuan untuk menghasilkan para pelajar yang berpengetahuan, berkemahiran, mempunyai sikap dan nilai yang dapat membentuk masyarakat yang bersifat prihatin terhadap kelestarian alam sekitar. Kebanyakan pelaksanaan pendidikan kimia hijau dilaksanakan ke atas pelajar di institusi pendidikan tinggi dan guru pelatih. Ia dilaksanakan secara pendidikan formal yang menyebabkan pelajar tidak dapat menghubungkan kepentingan kimia hijau dengan kehidupan sebenar. Pendidikan kimia hijau secara informal merupakan satu bentuk penglibatan pelajar di luar bilik darjah dan di luar skop pembelajaran secara rasmi yang dapat menarik minat pelajar untuk mempelajari kimia dan membolehkan pelajar membuat perkaitan isi kandungan pelajaran dengan konteks kehidupan sebenar. Kertas konsep ini akan menghuraikan peluang dan cabaran yang ada dalam mengimplimentasi pendidikan pembangunan kelestarian, PPL melalui kimia hijau secara informal ke atas para pelajar di Malaysia.

Keywords: Pembangunan Lestari, PL, Pendidikan Untuk Pembangunan Lestari, PPL, Kimia Hijau, Pembelajaran Informal, Penyelesaian Masalah

ID: 150

Kesan Aktiviti Fizikal Dan Puasa Terhadap Indeks Obesiti Sebagai Parameter Untuk Menilai Sindrom Metabolik

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Di Malaysia, senario obesiti kini mencapai tahap yang membimbangkan. Selain dikategorikan dalam komponen utama yang menyebabkan sindrom metabolik ia juga berpotensi sebagai penyumbang kepada penyakit-penyakit kronik seperti diabetes, tekanan darah tinggi, kardiovaskular dan hipoglisemia. Selain itu, penurunan paras rintangan insulin yang seiring dengan pengurangan ukur lilit pinggang membuktikan obesiti visera mempunyai perkaitan dengan rintangan insulin menjadi penyebab kepada penyakit sindrom metabolik. Walau bagaimanapun, kajian lepas mendapati selain melakukan senaman yang konsisten, aktiviti berpuasa juga merupakan salah satu alternatif bagi mengurangkan faktor sindrom metabolik seperti paras glukosa darah puasa, HDL (High Density Lipoprotein), tekanan darah dan rintangan insulin. Gabungan faktor pemakanan dan juga aktiviti fizikal yang melibatkan jumlah insulin dalam darah membantu dalam penurunan rintangan insulin dijangka akan memberi kesan positif ke atas sindrom metabolik. Setakat ini tiada lagi kajian terkawal membabitkan aktiviti fizikal dan puasa ke atas faktor sindrom metabolik di kalangan warganegara Malaysia. Oleh yang demikian, fokus kajian ini adalah untuk melihat tindak balas kesan aktiviti fizikal dan puasa terhadap ciri-ciri sindrom metabolik seperti glukosa, triglyceride, kolesterol, LDL (Low Density Lipoprotein) dan HDL (High Density Lipoprotein).

Kata Kunci: Obesiti, Sindrom Metabolik, Aktiviti Fizikal

ID: 151

Alat Bantuan Latihan Dan Ujian Dalam Sukan Sepak Takraw

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Kajian ini merupakan satu projek rekapipta yang bertujuan untuk menghasilkan modifikasi instrumen latihan dan ujian yang spesifik bagi sukan sepak takraw. Teknologi baru telah menjadikan sukan kini semakin pantas serta perubahan teknologi dalam sukan meliputi kaedah moden dan terkini (Fuss et al., 2007). Instrumen ini menggunakan teknologi elektronik (sensor) untuk merekod kekuatan servis atau rejaman pemain dan kamera untuk merekod dan menilai kesesuaian kedudukan kaki pemain semasa membuat lakuan servis dan rejaman. Objektif penghasilan instrumen ini adalah untuk menghasilkan modifikasi instrumen latihan dan ujian yang spesifik dalam sukan sepak takraw, mudah laras, mudah alih dan ianya mudah untuk di gunakan. Alatan ini pada masa yang sama akan digunakan sebagai instrumen penilaian lakuan tersebut. Apabila sensor mengesan beban dikenakan keatas tali, instrumen akan menganalisis dapatan tersebut dan merekod skor kekuatan kaki akan dipaparkan di paparan digital sebagai rujukan kepada pelatih atau pengendali mengenai kesesuaian lakuan dalam menghasilkan kekuatan. Pengujian alat ini akan dilakukan keatas 15 pemain professional. Subjek ini juga akan menjawab soalan berkenaan kesesuaian alat yang dibina. Keberkesanan dan kesesuaian alat akan diperolehi melalui maklumat temubual dalam kalangan 30 orang pemain dan jurulatih sepak takraw selepas menguji instrumen yang dibangunkan ini selama satu hari. Mereka terdiri daripada pelajar Sekolah Sukan Tengku Mahkota Ismail (SSTMI), Kota Tinggi, Johor. Data yang dianalisis menggunakan perisian Statistical Package For Social Science (SPSS). Instrumen yang dibangunkan ini dijangka dapat membantu latihan dan pengujian kekuatan untuk lakuan servis dan rejaman. kajian ini juga akan membincangkan masalah-masalah dan cabaran yang dihadapi sepanjang penyediaan

Kata Kunci: Rekapipta; Teknologi; Servis dan Rejaman

ID: 152

Revisiting Islamic Perspective Of Administration: Interpretations From Islamic Scriptures

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This study examines how Islamic model of administration is being practised referring to the main and fundamental sources of sharĒah (Islamic way of life); the QurĒn and the tradition of Prophet Muhammad (Hadith; also known as sunnah). Using various classical and modern commentaries, the Qur'anic verses are analyzed and interpreted, underpinned by Hadith. The study also gives an outline of the QurĒnic and Prophetic approaches toward administration and related issues. In searching for some theoretical aspects of Islamic pattern of administration, identity of the responsible administrator, and the normative function of man as an administrator, with a philosophical understanding, this study concludes with some implications for practice with regard to Islamic models of administration mainly centred on the administrative system of educational institutions.

Keywords: Administration, Islamic Perspectives, Islamic Pattern

ID:154

Cabaran Pendidikan Orang Asli Di Sekolah Dan Amalan Berkesan Pedagogi Orang Asli

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Dasar Kementerian Pelajaran Malaysia kepada Pelan Induk Pembangunan Pendidikan (PIPP), adalah bertujuan untuk merapatkan jurang pendidikan antara lokasi, tahap sosioekonomi, dan tahap keupayaan pelajar. Kementerian juga bermatlamat untuk memastikan semua sekolah dan pelajar berkeupayaan dan berpeluang yang sama untuk cemerlang termasuklah sekolah harian biasa atau sekolah berasrama penuh. Semua lapisan masyarakat pendidik di Malaysia sentiasa menitikberatkan peningkatan dalam kualiti pendidikan bagi kaum Orang Asli. Secara umum, masyarakat Orang Asli Malaysia mempunyai pelbagai budaya unik yang masih kurang difahami oleh masyarakat bukan Orang Asli. Justeru itu, kertas kerja ini ditulis untuk membentangkan keperluan amalan berkesan pedagogi pembelajaran pelajar Orang Asli secara mendalam. Pemahaman guru mengenai elemen dalam pedagogi yang sesuai untuk pelajar Orang Asli terutama dari aspek pengajaran dan pembelajaran dalam bilik darjah adalah penting. Hakikat yang tidak dapat dinafikan ialah pelajar Orang Asli juga mempunyai keperluan pembelajaran yang pelbagai. Kepelbagaian keperluan ini perlu diambil kira untuk mewujudkan suasana pembelajaran yang kondusif untuk pelajar Orang Asli ini. Kertas kerja ini mempunyai implikasi dalam mengenalpasti elemen-elemen yang perlu dimasukkan ke dalam pedagogi bilik darjah dan seterusnya menarik minat pelajar Orang Asli untuk mengikuti pengajaran dan pembelajaran bagi meningkatkan pencapaian pendidikan terutama dalam bidang akademik.

Kata Kunci: Orang Asli, Amalan Pedagogi berkesan, Pendidikan.

ID: 155

A Review of Social Constructivism Flipped Classroom Model on Students' ICT

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In the 21st Century, ICT (Information and Communication Technology) subject has been gradually included into every school includes primary and secondary schools to enhance ICT Skills. Social Constructivism involves peer to peer communication which help students to understand, investigate, and determine how knowledge is constructed. Flipped Classroom Model (FCM) turns traditional learning method by replacing classroom lectures with video lectures that students need to watch before class lesson time. Students do their homework or assignments during class lesson time with the help of the educators. Social Constructivism Flipped Classroom Model is the FCM that applies Social Constructivism theory. The purpose of this paper is to identify the social collaborative flipped classroom features that promotes student' active learning in ICT subject. The approach adopted in this article is a critical analysis of Social Collaborative Flipped Classroom Model on Students' ICT Skills. The paper proposes active learning activities based on social constructivism theory that could be used for future research.

Keywords: Flipped Classroom, Flipped Classroom Model; Social Constructivism; Social Collaborative Flipped Classroom Model; ICT Skills

ID: 156

Peningkatan Kemahiran Saintifik Pelajar dalam Pembelajaran Amali Fizik Berbantuan Komputer

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Kajian ini bertujuan untuk meneroka pengalaman amali berbantuan komputer yang dilalui oleh pelajar dalam mempengaruhi penguasaan kemahiran saintifiknya. Amali yang dijalankan di sekolah adalah satu medium yang digunakan untuk menjana sifat inkuiri dan pemikiran konstruktivis dalam kalangan pelajar. Penguasaan kemahiran saintifik melalui objektif pembelajaran amali sangat penting kerana menggalakkan pelajar meneroka sendiri ilmu tersebut. Oleh itu, kajian ini akan mengetengahkan kekangan yang dialami oleh pelajar semasa menjalankan amali melalui pemerhatian dan analisis dokumen (lembaran kerja). Analisis data mendapati bahawa epistemologi saintifik pelajar perlu ditingkatkan kerana pelajar tidak dapat menerangkan secara saintifik antara konsep yang dipelajari dengan amali yang dijalankan. Penguasaan kemahiran saintifik pelajar yang lemah menyukarkan pelajar memahami objektif amali yang dijalankan. Maka, epistemologi saintifik pelajar perlu ditingkatkan agar pelajar dapat mempunyai kemahiran saintifik, mengetahui tujuan amali dilakukan dan meningkatkan kefahaman dalam konsep fizik.

Kata Kunci: Amali, Kemahiran Saintifik, Fizik

ID: 157

Professional Competency Index For Lecturer In Saudi University

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The concept of competency has a long history in education, training research and practice. This study investigates the index of professional competency for lecturers in the three selected Saudi Universities. The sample of the study consists of four professors who are purposely selected and interviewed for their long experience in the field of university education. The index of the professional competency that fits the Saudi University lecturers are validated using face validity and content validity. The findings of the study revealed that the lecturers' professional competency index consists of teaching competency, technology competency, evaluative competency, human competency and cultural competency. Suggestions are given for future studies to improve the lecturers' professional competency index.

Keywords: Profession, Competency, Index, Lecturer, Saudi, University

ID: 158

A Study on the Integration Features of Cognitive, Affective and Psychomotor Domains in Teaching and Learning Physical Education

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In Malaysia, Physical Education (PE) is considered important by the Ministry of Education in promoting the modern concept of educations which involves the development of the a well-rounded child. The total school program is designed to assure the optimum growth and development of school children through directed physical activities. Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner. Issues in Physical Education has revealed that some students are not interested in physical education lessons and reported that lack of time, regimented lessons and lack of physical activities as the reason behind the result. The holistic learning outcome from the physical education were classified by Bloom to three domain of taxonomy which are cognitive, affective and psychomotor. From the Bloom taxonomy, Simpson's have integrate the cognitive and affective domain in psychomotor domain and used by Bunker and Thorpe to develop an education model of teaching game for understanding. The study of psychomotor domain is deemed timely and crucial as it could provide a relevant picture for scholars, practitioners and policy makers in relation to testing and assessment. Further study in this area will help to produce a new integrated model on psychomotor domain through the physical education learning outcome.

Keywords: Teaching Game for Understanding; Learning Domain; Physical Education

ID: 159

Persepsi Diri, Kecekapan Motor, Dan Kecergasan Fizikal Kanak-Kanak Orang Asli

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Matlamat Penulisan ini adalah untuk mencari penyelesaian tentang masalah keciciran di kalangan kanak-kanak Orang Asli yang semakin meningkat dari tahun ke tahun. Menurut statistik yang dikeluarkan oleh pihak Jabatan Hal Ehwal Orang Asli (JHEOA) menunjukkan dalam jangka masa 7 tahun, iaitu 2001-2007 daripada 25,131 kanak-kanak Orang Asli yang tamat tahun 6, hanya 64% yang meneruskan pelajaran ke tingkatan 1. Manakala menurut bekas Menteri Kemajuan Luar Bandar dan Wilayah (KKLW), YB Datuk Seri Shafie Apdal (2011), seramai 2,254 kanak - kanak Orang Asli tidak menghabiskan pendidikan sekolah menengah, sementara seramai 1,270 menyelesaikan pendidikan sehingga Tahun Enam sekolah rendah sahaja. Ini telah memberi kesan yang sangat besar kepada masyarakat Orang Asli kerana prestasi cemerlang dalam akademik merupakan kayu ukur kejayaan seseorang dan diiringi dengan peluang-peluang pekerjaan yang bergaji lebih tinggi. Ini menyebabkan mereka kekal tinggal di pedalaman dan membuat kerja-kerja kampung kerana mereka tidak mampu bersaing dengan masyarakat luar untuk mendapat pekerjaan yang baik. Dengan menggunakan kaedah mengesan tahap persepsi diri, kecekapan motor, dan kecergasan fizikal, ia akan dapat merungkai kekuatan yang ada pada mereka dan mengenalpasti persepsi tentang diri mereka. Kaedah ini digunakan kerana masyarakat Orang Asli lebih sinonim dengan kecergasan fizikal tetapi sangat lemah dalam akademik. Kaedah Sampel kajian terdiri daripada kesemua kanak-kanak Orang Asli yang berumur 11 dan 12 tahun, dan mereka perlu menjalani ujian "Self-Perception Profile for Children" (SPPC), "Movement Assessment Battery for Children" (MABC), dan "Test of Physical Fitness" (TPF). Ujian SPPC adalah ukuran yang telah dirancang untuk menguji tahap kecekapan akademik, penerimaan sosial, kecekapan olahraga, penampilan fizikal, kelakuan tingkah laku, dan juga persepsi tentang diri mereka. Ujian MABC pula adalah untuk mengenal pasti tahap kecekapan motor kanak-kanak, ia terdiri daripada ujian ketangkasan, ujian kemahiran bola, dan ujian statik dan dinamik. Ujian ini telah dibangunkan oleh Henderson & Sugden (1992). Manakala ujian TPF pula adalah bateri ujian yang agak baru diperkenalkan yang bertujuan untuk mengenal pasti tahap kecergasan kanak-kanak. Ia terdiri daripada aktiviti yang termasuk dalam permainan sehari-hari, sebagai contohnya melompat, membaling, berlari, dan memanjat.

Kata Kunci:Orang Asli; keciciran; Persepsi diri

ID:160

Perceptions, Practices and Problems of School-Based Assessment for Primary School in Kluang, Johor

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This study aims to identify the perceptions, practices and problems in the implementation of the School-Based Assessment (SBA) in the Standard Curriculum for Primary School (KSSR) in Kluang, Johor. The questionnaire which consists of four sections was used as instrument in this study. The sample consisted of 267 teachers from 20 Primary Schools in Kluang, Johor. The results showed that the perceptions, practices and problems have high mean values with each having a mean value of 3.93, 3.84 and 3.95 respectively. Perceptions of teachers who teach in urban schools do not differ from teachers teaching in rural schools, but in terms of practices and problems, the teachers in urban schools have higher mean values. The mean values for practices and problems of teachers who teach in urban schools are 4.01 and 3.93 respectively. This indicates that teachers in urban schools have problems in the implementation of SBA in KSSR. In addition, teachers teaching more than 10 years had a higher mean value in terms of perceptions, practices and problems of SBA in the KSSR with a mean of 4.09, 4.06 and 3.96 respectively. Their mean values are higher compared to those who teach less than 10 years. The study also shows that there are significant differences between aspects of perception, practices and problems with teaching experiences among teachers. In addition, there are also significant differences between practices and problems in schools category. However, there is no significant difference between the perceptions of teachers based on school category. Overall practices and problems of implementation of SBA in the KSSR, among the teachers are at a high level and perceptions is moderate.

Keywords: School-Based Assessment (SBA); Standard Curriculum For Primary School (KSSR)

ID: 161

The Effect Of Combined Calisthenics And PNF Stretching On Body Composition, Lipid And Non-Lipid Risk Factors And Flexibility In Adult

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Resistance training (RT) has a pivotal role in lessen the Cardiovascular Disease (CVD) risk factors. One of the typical resistance training exercises is traditional calisthenics, frequently included in rehabilitation or physical therapy program. Proprioception Neuromuscular Facilitation (PNF) also beneficial in improving physical fitness. Previous researches have been attempted to determine the effectiveness of resistance training exercise (i.e. weight machine and free weight). To date, however, there were small number of experimental evidences focusing on the effect of calisthenics exercises that could improve the risk factors. This study therefore, sets out to assess the effectiveness of the supervised calisthenics exercise combine with PNF stretching on CVD risk factors. Adult with age ranged from 25 to 50 years, with three or more risk factors will be randomly chosen for this study. Subjects are recruited among individuals attending the out-patient department (OPD) of health clinic. The subjects will be assigned into three groups – two experimental groups (i.e. calisthenics (CE) and Calisthenics and PNF (CP)) and also control group (CG). To obtain the baseline and post data, some parameters (body composition, lipid and non-lipid profiles and flexibility) of all subjects will be measured. The CE and CP undergo the supervised exercise program, whereby the CG will continue their usual daily routine. Therefore, this study seeks to examine the effectiveness of the exercise program on particular CVD risk factors in adult, thereby improving their quality of life.

Keywords: Calisthenics, PNF stretching, Lipid, Non-lipid, Body Composition

ID: 162

Asd: Are They Creative?

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This paper will explore the widely common belief of creativity deficit in people with Autism Spectrum Disorder (ASD). It will discuss the cognitive concept of creativity and outline how nature versus nurture factor comes to play in inhibiting or promoting creativity. It will also highlight the common assessment on creativity. Furthermore, this paper will examine the cognitive theories of autism and review the creativity capacity in people with ASD. As a whole, this paper advocates for us to reconsider the creativity deficit belief and appreciate the people with ASD who view the world in different ways.

Keywords: Autism; Creativity; Psychology

ID: 163

A Model Of Cognitive Pattern In Complex Problem Solving For Engineering Undergraduates

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The purpose of this research is to explore engineering undergraduate's pattern of cognition while they are engaging in process of complex problem solving from the perspective of cognitive psychology. Quantitative research will be employed in this research. A model of particular cognitive pattern will be developed based on the findings. The model developed from this research is crucial as a guideline for academics, course coordinators, curriculum developers and programme owners in designing advance inquiry-based teaching and learning modules for engineering programmes in Malaysia.

Keywords: Cognitive Pattern, Complex Problem Solving, Engineering Undergraduates

ID: 167

Assessing Collaborative Learning Activities Of Problem-Based Learning: The Experiences Of Chemistry Students In Nigerian Secondary Schools

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Nowadays employees should be able to apply knowledge and skills in real-life situations. Science curriculum should develop students' ability to have flexible knowledge and problem solving skills. However, teaching and learning in Nigerian Secondary Schools does not produce students with flexible knowledge and skills, because of traditional instructions which does not allow optimum learning activities and interactions that promote higher-order thinking, improved learning and skills development. The purpose of this article is to investigate the collaborative learning activities of the PBL and effects of these activities in promoting higher-order thinking, improved learning and skills development in chemistry students of Nigerian Secondary Schools. PBL is a process where students develop flexible knowledge and problem solving skills through collaborative and self-directed learning activities under teacher's guide. It is supported by Constructivists and Cognitivists psychologists. The study adapted a qualitative approach with explanatory design. Two teachers and fifteen (15) chemistry students (average age 16) were purposefully selected from one senior secondary school (10 grade) as research participants. The students' undergo 6 weeks of PBL intervention process using PBL module. Data was collected through observations and interviews after the PBL intervention exercise. The data were transcribed, triangulated and analyzed using content analysis. The findings showed that students experienced several collaborative learning activities. These activities generate optimum interactions between students and teachers that promote higher-order thinking, improved learning and problem solving skills. The researchers suggested for the implementation of PBL approach in learning chemistry in Nigerian Secondary Schools and higher educational institutions.

Keywords: Activities; Chemistry; Collaborative learning; Experiences; Problem-based learning.

ID: 168

Dimensionaliti Profesionalisme Pensyarah Institut Pendidikan Guru Malaysia

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Pelan Pembangunan Pendidikan 2013-2025 menuntut pensyarah-pensyarah Institut Pendidikan Guru Malaysia (IPGM) menguasai pengetahuan, kemahiran serta memartabatkan nilai-nilai murni bagi meningkatkan kualiti pengajaran dan pembelajaran. Selaras dengan konsep The New IPG (Learner-Centered University), IPGM berusaha meningkatkan standard 27 buah Institut Pendidikan Guru Kampus (IPGK) agar setanding dengan institut pengajian tinggi dalam dan luar negara. Justeru, gagasan baru IPGM memfokuskan terhadap profesionalisme pensyarah bagi memantapkan keterampilan pendidik guru dalam menghasilkan bakal guru yang berkualiti dan dinamik. Oleh yang demikian, tujuan kajian ini adalah bagi mengenal pasti konstruk dan dimensionaliti profesionalisme pensyarah IPGM bertujuan membina satu instrumen yang sah dan dipercayai untuk digunakan bagi saringan pengambilan pensyarah-pensyarah baharu yang berhasrat meneruskan kerjaya di IPG. Dalam kajian keperluan ini, pengkaji telah menggunakan dua pendekatan iaitu analisis dokumen (sorotan literatur) dan menjalankan protokol temu bual terhadap tiga orang pengurus tertinggi IPGM. Dua instrumen yang digunakan adalah (i) set soalan protokol temu bual dan (ii) borang matriks kompetensi. Hasil kajian menunjukkan profesionalisme pensyarah merangkumi 3 konstruk utama iaitu pengetahuan, kemahiran dan nilai. Dimensi pengetahuan terdiri daripada pengetahuan subjek (PS), pengetahuan pedagogi (PG), pentaksiran (PN) dan penyeliaan (PY) manakala dimensi kemahiran merangkumi kemahiran teknologi maklumat dan komunikasi (TMK), penyelidikan, penerbitan dan inovasi (PPI), komunikasi (KK), konsultasi (KT) dan pengurusan (PU). Dimensi nilai pula terdiri daripada personaliti (PI), integriti (IG) dan kolaboratif (KB). Hasilnya, matriks profesionalisme pensyarah IPGM dapat dikonseptualisasikan dan dijadikan panduan bagi pembinaan instrumen MyIPGM Kompetensi Inventori yang mempunyai tahap kesahan dan kebolehpercayaan yang tinggi.

Kata Kunci: Dimensionaliti Profesionalisme Pensyarah IPGM, Meta Analisis Konstruk Profesionalisme Pensyarah, MyIPGM Kompetensi Inventori.

ID: 169

Pengetahuan Dan Amalan Pentaksiran Dalam Bilik Darjah

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Pentaksiran adalah satu proses pengumpulan maklumat bertujuan meningkatkan kualiti pengajaran dan pembelajaran. Pentaksiran dalam bilik darjah berlaku secara berterusan serta menggalakkan murid meneruskan pembelajaran sepanjang hayat. Kandungan teras yang terdapat dalam Pelan Induk Pembangunan Pendidikan (PIPP) (2006-2010) memfokus kepada pelajar dan guru iaitu Fokus 4: memantapkan sistem pentaksiran dan penilaian supaya lebih holistik (KPM, 2012). Sistem Pentaksiran Pendidikan Kebangsaan (SPPK) kini mengalami anjakan pentaksiran yang menekankan keputusan ujian berdasarkan rujukan kriteria daripada memberi kedudukan kepada pelajar berdasarkan keputusan ujian rujukan norma (KPM, 2012). Sebagai pentaksir, guru perlu berfikir secara inovatif serta mampu merancang dan melaksanakan pentaksiran dengan berkesan. Kertas konsep ini bertujuan untuk membincangkan pengetahuan dan amalan pentaksiran guru dalam bilik darjah. Pengetahuan pentaksiran merangkumi pemilihan kaedah pentaksiran, pembinaan pentaksiran, tadbiran pentaksiran, kegunaan keputusan pentaksiran, prosedur penggredan, penyampaian maklum balas dan mengenalpasti kegiatan tidak beretika. Manakala amalan pentaksiran melibatkan amalan dalam pembinaan ujian, pemilihan jenis pentaksiran, penggunaan hasil pentaksiran, penggredan dan penskoran, skema pemarkahan dan memberi maklum balas hasil pentaksiran. Untuk memastikan pentaksiran bilik darjah dijalankan adalah sah dan tepat, guru sewajarnya mempunyai pengetahuan pentaksiran yang mantap dan melaksanakan pentaksiran secara telus, seterusnya mencapai hasrat pentaksiran secara holistik.

Kata Kunci: Pentaksiran Dalam Bilik Darjah, Pengetahuan Pentaksiran, Amalan Pentaksiran

ID: 170

PenguasaanKemahiranBerfikirArasTinggiDan PengutaraanMasalahPelajarKimia

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Artikel ini bertujuan untuk melaporkan dapatan kajian terhadap penguasaan kemahiran berfikir aras tinggi (KBAT) dan penguasaan pengutaraan masalah dalam kalangan pelajar kimia. Kajian secara deskriptif dengan menggunakan reka bentuk tinjauan telah digunakan. Responden terdiri daripada 370 pelajart ingkatan empat aliran sains yang mengambil mata pelajaran kimia di tiga buah sekolah sekitar Bandar Kajang. Data di peroleh melalui instrumen Ujian Kemahiran Berfikir ArasTinggi (UKBAT). Data di analisis secara statistik deskriptif yang melibatkan frekuensi, peratus dan min. Dapatan menunjukkan tahap penguasaan KBAT dan pengutaraan masalah pelajar adalah pada tahap sederhana. Majoriti pelajar hanya berupaya menyelesaikan masalah dan mengutarakan masalah pada aras rendah (pengetahuan dan kefahaman) dalamTaksonomi Bloom dan mengalami kesukaran pada aras tinggi. Dapatan kajian ini menunjukkan peripentingnya usaha yang lebih bersungguh-sungguh untuk membangunkan kemahiran berfikir dan penguasaan pengutaraan masalah pelajar kearah pembentukan masyarakat yang berdaya saing di era globalisasi.

KataKunci:Pengutaraan Masalah,KemahiranBerfikir Aras Tinggi,Kemahiran Berfikir Aras Rendah, Kimia

ID: 171

Model To Overcome Disciplinary Problems In Skill-Based Educational Institutions

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Disciplinary problems among teenagers is not something strange in the education environment, particularly at the school level. However, these problems will be a major problem to the country in general when it extends to the tertiary level education. Attitudes, lacking of attention and family upbringings are among the factors that contributed to the disciplinary problems. Moreover, this problem might persist in the working environment which will give negative impact to employers and company as well. This research is conducted to identify problems faced by educators from various background of Skill-based Educational Institutions around Johore during the Teaching and Learning process among their students. Eight (8) respondents were chosen to participate in this Qualitative Research. Respondents were interviewed and being observed directly in class sessions. Findings showed problems such as educators' lacking of knowledge and guidance in managing students' disciplinary problems, lacking in spiritual values among students and students' family problems contributes to the disciplinary problems in Skill-based Educational Institutions. Therefore, a model as guidelines to educators of Skill-based Educational Institutions will be presented to educate students to adopt a better way of everyday life during studies and working, thus at all time and places.

Keywords: Disciplinary Problems; Skill-Based Education; Value

ID: 172

Peer Tutoring Teaching Practice in Online Learning Environment: A Review

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Peer tutoring concept originates from classroom settings and has only recently be shifting to online learning environment (online discussion). Many studies reviewed on peer tutoring teaching practice particularly in face-to-face settings. However, few studies reviewed on peer tutoring teaching practice embed in online settings. Thus, this paper aim to review the peer tutoring teaching practice in terms of formats, participants, subjects used in online settings specifically in online discussion/forum and its findings regarding used of particular peer tutoring formats whether yield positive or negative outcomes to students' learning. There are 9 researches have been reviewed; further the findings will be used to design the peer tutoring teaching practice in online learning environment specifically online discussions for encouraging active learning.

Keywords: Peer Tutoring; Online Learning; Review

ID: 174

Obstacles in Adaptation of a Western Approach to English Language Teaching

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Although Liao (2004); Li (1984) and Maley (1984) completely agree with applying western approach to English language teaching in Asian countries because of different preferences such as improving learners' motivations and putting focus on fluency instead of accuracy (Belchamber, 2007), during 3 decades some opposing ideas on the effectiveness of applying western approach in Asian contexts have been declared (Bax, 2003; Savignon, 2003; Incecay, 2009; Ansarey, 2012; Mochida, 2002). Bax (2003) and Incecay (2009) stated the advantages of the traditional methods of language teaching in Asian contexts and some researchers (Bax, 2003; Shin and Crookes, 2005) have announced that the implementation of CLT approach in Asian countries is almost impossible because of cultural resistance in different countries such as opposing philosophies of teaching and learning and the responsibilities of teachers and learners (Hu, 2002). The application of western approach in Asian countries is associated with some problems that can cause the method turn out not to be so much successful and the learning outcome not to be efficient enough. This paper mainly intended to evaluate the problems that may lead to the failure of western approach to English language teaching in Asian countries. Awareness of these problems and the possible remedies can be helpful for both Asian teachers and learners, providing them with insightful ideas about how to manage their teaching and learning activities for the successful implementation of western approach in Asian context. From the perspective of Pandian (2004) local elements should be considered into account in teaching Malaysian students. He declares that local Malaysian socio-cultural context as well as the unique needs of English for the Malaysian learners should be taken into account in choosing a syllabus or teaching method. Nur Salawati Binti Mohd Nadzri (2011) also believes Western methods did not consider these factors and implementing these methods such as CLT needs some adaptation in Malaysia.

Keywords: Western Approach; Obstacles; Asia

ID: 176

Industrial Collaboration In Vocational College: A Preliminary Study

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In recent years, the collaboration between educational institutions and industry has been given much attention particularly in the field of technical and vocational education and training (TVET). Collaborations between educational institutions and industrial organizations to propel strategic partnership are necessity. The inter-organizational collaborations are important to ensure the graduates fulfill the requirements of the industry and the national economy prior to entering the job market. The need to study this topic was initiated by observing the growing challenges towards the role played by vocational colleges as one of the newly established TVET educational institutions in preparing their graduates with relevant skills. The purpose of this preliminary study was to explore the possibilities and limitations of collaboration between industrial companies and vocational colleges. An inductive qualitative approach was deployed in the research process. The respondents were administrators and lecturers from three vocational colleges. Interviews were conducted to identify the level of collaboration of the vocational colleges with companies and the limitations for such collaboration. Initial findings indicated that vocational colleges need to collaborate with industry and workplace for practical hands on that can be done by implementing the On-the-Job Training (OJT) and National Dual Training System (NDTS). However, process of getting approval for Memorandum of Understanding (MOU) was the barrier specified by these three Vocational colleges.

Keywords: Collaboration, Vocational Colleges, Industry

ID: 177

Learning To Teach: Vocational Student Teachers Early Development In Teaching Practicum

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The transformations of TVET are to deliver system and increase its attractiveness as a choice for another education pathway. With this transformations, teacher training programmed needs to achieve the standard of the transformations. Basic (pre-service) training of vocational subject teachers, their training and upgrading in the course of work (in-service), presents a complex problem to deficit of knowledge and skills of VET teachers as a consequence of transition to the market economy, and of faster technology development. The research is set up to get conceptual framework of Vocational Student Teachers Development in Teaching Practicum. However this paper will discuss early development of student teachers during teaching practicum in vocational school by using qualitative analysis. The findings show that how nervous student teachers can be before their first school placement. In fact, third year undergraduates from Department of Technical and Engineering Education Faculty of Education UTM, who may have only recently left school themselves, probably relate more easily to the pupils in schools rather than the teachers. Furlong and Maynard(1995) have identified what they consider to be five 'Stages of Learning' in student teachers' development. They describe these as the first period in the classroom is, for most students, primarily focused on developing their own performance as teachers. Adult learning theories have been identified as the dominant conceptual framework behind mentoring as student growth as a teacher within a context of support and challenge. It is considered that learning how to teach and learning about teaching relies greatly on the empathy and close professional understanding.

Keywords: Learning To Teach, Vocational Student Teachers, Teaching Practicum

ID: 178

PEMBELAJARAN BERASASKAN KONTEKS ATAS TALIAN BAGI MEMUPUK LITERASI KIMIA PELAJAR

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Cabaran utama dalam pendidikan kimia adalah untuk membentuk pengetahuan pelajar dalam membina konsep kimia yang abstrak kerana pelajar tidak mampu membina kekuatan pemikiran aras tinggi. Kekuatan pemikiran aras tinggi merupakan ciri penting bagi pelajar untuk berinteraksi dengan fenomena yang berlaku dalam kimia secara mikroskopik, makroskopik, dan simbolik. Perkembangan pemikiran aras tinggi pelajar dalam menguasai konsep-konsep asas kimia sangat diperlukan dalam menguasai literasi kimia. Penguasaan literasi kimia boleh ditingkatkan melalui pembelajaran secara konteks di mana pembelajaran konsep kimia yang abstrak menjadi lebih baik. Pembelajaran secara konteks mewujudkan persekitaran pembelajaran yang membolehkan pelajar berinteraksi dengan bahan-bahan pengajaran dan membina pengetahuan serta pembelajaran bermakna. Integrasi teknologi dalam pembelajaran berasaskan konteks pula membantu guru menyediakan pengalaman yang diperlukan oleh pelajar bagi memupuk literasi kimia kerana membolehkan pelajar mengembangkan idea saintifik situasi dunia sebenar melalui pengumpulan maklumat, mengvisualisasi, mentafsir dan merekod data yang boleh dilakukan dengan mudah secara atas talian. Artikel ini membincangkan ciri-ciri pembelajaran kontekstual secara atas talian bagi meningkatkan literasi kimia di kalangan pelajar.

Kata Kunci: Pembelajaran Berasaskan Konteks; Literasi Kimia

ID: 179

Conceptual Framework of Authentic Chemistry Problem-Solving Competency among School Students

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This paper discusses the conceptual framework of authentic chemistry problem solving competency in learning electrolysis. Authentic learning practice has a potential to improve problem solving competency by creating a meaningful learning environment among school students. This conceptual framework incorporates two established models; model of problem solving instruction: Search, Solve, Create and Share (Pizzini, 1987) and model of authentic learning (Herrington, 2000) with Science Framework in Program for International Student Assessment (PISA) by The Organization for Economic Cooperation and Development (2012). Authentic practice in learning chemistry will enhance higher order thinking skills especially to solve the open-ended problems. Open-ended problem is an ill-defined and non-routine problem, which is presenting a real-life context that interesting and relevant to the students. Student's prior scientific knowledge competency, experience, problem solving skill and authentic learning practice are identified to be the independent variables to develop problem solving competency in learning chemistry. Chemistry problem solving ability test and problem solving skills questionnaire are administered to 112 full residential school students. Result from the preliminary study found that low (20.5%) and average (53.6%) achiever in Chemistry problem solving ability test has verified the independent variables are essential for the research. Domains in the problem solving skills are also at the average and low level. This framework is being implemented in a research being undertaken at present. The research will be investigating the impact of module of the authentic learning practice on the chemistry problem-solving competency among full residential school students.

Keywords: Problem-Solving Competency; Authentic Learning Practice, Open-Ended Problem

ID: 180

Faktor-Faktor Dan Kesan Tingkah Laku Bermasalah Dalam Kalangan Pelajar Sekolah Rendah Di Daerah Johor Bahru

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Masalah disiplin dalam kalangan pelajar merupakan sesuatu yang lumrah dalam dunia pendidikan. Walau bagaimanapun masalah disiplin tidak boleh dipandang ringan kerana sekolah merupakan tempat proses pengajaran dan pembelajaran berlaku serta memerlukan suasana yang kondusif supaya keberkesanan kedua-dua proses tersebut berjaya dimanfaatkan oleh pelajar. Namun terdapat pelajar yang melakukan kesalahan disiplin berulang kali tanpa rasa takut dengan hukuman yang bakal diterima. Kumpulan pelajar ini dikategorikan sebagai pelajar bermasalah disiplin tegar. Tingkah laku mereka sudah tentunya memberi kesan kepada pelajar lain di dalam bilik darjah sedangkan sekolah merupakan tempat untuk melahirkan modal insan yang berkualiti. Menyedari kewujudan pelajar bermasalah disiplin tegar ini satu penyelidikan telah dijalankan untuk mengkaji tingkah laku bermasalah dalam kalangan pelajar sekolah rendah di daerah Johor Bahru. Objektif kajian ini juga adalah untuk mengenal pasti faktor-faktor yang mempengaruhi tingkah laku bermasalah dan kesan tingkah laku bermasalah tersebut kepada pelajar. Selain itu juga tindakan-tindakan yang pernah dilakukan oleh pihak yang bertanggungjawab juga terdapat dalam kajian yang dijalankan ini. Kerangka teori berkaitan dengan tingkah laku pelajar bermasalah juga terdapat dalam kajian ini. Kerangka teori ini menerangkan bagaimana tingkah laku bermasalah tadi terbentuk dari awal dalam kalangan pelajar sekolah rendah.

Kata Kunci : Tingkah Laku Bermasalah, Faktor-Faktor, Kesan Terhadap Pelajar.

ID: 182

Holistic Approach in Online Learning Community: A Meta-Analysis

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Holistic approach in online learning can be viewed as the development of a person as a whole dimensional that is the development of students' physical, emotional, and affective dimensions. As technology advances, learning are now no longer limited to learning in the classroom per se but can also extended to learning online through the support of online community. Holistic approach is seen not only applied to the traditional classroom learning, but also is applied to online learning environment. Thus, it is important for this study to investigate the suitability of elements in holistic approach that can be applied in online learning environment. Hence, the aim of this paper is to investigate different holistic approach that were implemented in the literature of online learning and their suitability to learning online especially in social network environment.

Keywords: Holistic Learning, Online Learning, Online Community

ID: 184

Mental Health Status Of Students Of Guidance And Counseling In West Sumatera

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This research aims to reveal the condition of the mental health status of students of guidance and counseling. The mental health condition is divided into stress, depression and anxiety experienced by the students of guidance and counseling. This research is a descriptive quantitative research with the total sample 221 students, selected by using simple random sampling technique. The instrument used is DASS. The data are analyzed by using descriptive analysis. The results of the study reveals that the stress condition of guidance and counseling students is normal in general, the depression condition of guidance and counseling students is also normal, and the anxiety of guidance and counseling students is in moderate condition. The implications of this study are the need to increase resilience and reduction efforts to improve productivity of students. In addition, the results of this research can be the preliminary data to determine the types of services to solve problems of stress, anxiety and depression of students.

Keywords: Stress, Anxiety, Depression

ID: 185

Isu Pembangunan Keusahawanan Dalam Kalangan Pelajar-Pelajar Kejuruteraan Di Ipta Malaysia

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Kajian ini adalah bertujuan mengenal pasti faktor-faktor yang mempengaruhi pelajar-pelajar jurusan kejuruteraan di IPTA di Malaysia ini menceburi bidang keusahawanan selain bekerja makan gaji. Lulusan graduan pelajar jurusan teknikal mempunyai potensi yang tinggi untuk menceburi bidang keusahawanan berbanding dengan pelajar berjurusan pengurusan. Hal ini demikian adalah kerana pelajar jurusan kejuruteraan mempunyai kepentingan kemahiran dan kecenderungan dalam teknologi yang boleh diaplikasikan dalam bidang keusahawanan. Walau bagaimanapun, pelajar kejuruteraan di IPTA ini juga dipengaruhi oleh beberapa faktor seperti kaedah pengajaran, kemahiran yang dimiliki, galakan kerajaan serta kecenderungan pelajar. Selain itu, pelajar kejuruteraan ini juga perlu menghadapi beberapa cabaran dalam menceburi bidang keusahawanan. Antara cabaran dan halangan pelajar kejuruteraan ini ialah kurang pendedahan dalam bidang perniagaan, kurang motivasi, kurang keyakinan diri, tidak mendapat galakan pihak tertentu serta kekurangan sumber modal. Untuk memastikan isu ini dapat ditangani, semua pihak termasuk pelajar, universiti, ibu bapa, pensyarah, pihak kementerian dan masyarakat harus bertanggungjawab dalam memberikan keyakinan dan galakan kepada pelajar jurusan kejuruteraan ini agar berani untuk menceburi bidang keusahawanan dan seterusnya menjadikan bidang ini salah satu kerjaya selepas tamat pengajian.

Kata Kunci: Keusahawanan, Kerjaya, Pelajar Kejuruteraan Di Ipta

ID:186

Kompetensi Peribadi, Pedagogi, Profesionalisme Guru Dan Pencapaian Akademik Sekolah-Sekolah Berprestasi Rendah Di Bahagian Barat Dan Utara Negeri Sabah

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Kajian ini meninjau aspek kompetensi peribadi, pedagogi, profesionalisme guru dan hubungannya terhadap pencapaian akademik sekolah. Pencapaian akademik sekolah dalam kajian ini adalah merujuk kepada prestasi sekolah dalam Ujian Penilaian Sekolah Rendah (UPSR). Kerangka kajian adalah berdasarkan Standard Guru Malaysia yang ditetapkan oleh Bahagian Pendidikan Guru, Kementerian Pendidikan Malaysia. Data kuantitatif diperoleh dengan mengedarkan soal selidik kepada 111 responden dalam kalangan guru-guru di sekolah berprestasi rendah daerah Ranau, Sabah. Sekolah yang dikategorikan sebagai sekolah fokus KPM ialah sekolah-sekolah yang masih berada di Band 5, 6, 7 dan Gred Purata Sekolah (GPS) masih berada pada tahap 3.00 ke atas. Guru-guru di sekolah berkenaan diletakkan di bawah bimbingan pegawai pembimbing School Improvement Specialist Coaches Plus (SISC+) dari KPM untuk membantu menambahbaik kualiti pengajaran guru bagi meningkatkan pencapaian akademik di sekolah-sekolah berkenaan. Statistik deskriptif dan inferensi digunakan untuk menganalisis data kuantitatif. Dapatan kajian menunjukkan pengaruh antara kompetensi dan profesionalisme guru dengan pencapaian akademik sekolah dalam Ujian Penilaian Sekolah Rendah (UPSR).

Kata kunci: *Kompetensi, kualiti peribadi, pedagogi, profesionalisme*

ID: 187

Persepsi Majikan Dan Pekerja Terhadap Profesionalisme

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Kajian ini mengkaji persepsi majikan dan pekerja terhadap profesionalisme pada abad ke 21 ini. Satu kajian tinjauan kuantitatif yang menggunakan kaedah soal selidik telah dijalankan ke atas 124 orang majikan dan 179 orang pekerja teknik di industri perusahaan kecil dan sederhana di negeri Johor. Matlamat kajian ini dilakukan adalah untuk mengenal pasti perbezaan persepsi industri (majikan dan pekerja) terhadap kriteria profesionalisme. Data dianalisis dengan ujian-T. Hasil dapatan kajian menunjukkan tidak terdapat perbezaan yang signifikan di antara persepsi majikan dan pekerja terhadap kriteria keprofesionalan, ini membuktikan data adalah homogen ($t=0.096$; $p>0.05$). Persepsi majikan ($\text{min}=4.17$) adalah sama dengan persepsi pekerja ($\text{min}=4.16$). Hasil dapatan kajian menunjukkan kebanyakan majikan dan pekerja mempunyai persepsi yang sama terhadap keprofesionalan.

Kata Kunci: *Industri Perusahaan Kecil Dan Sederhana, Majikan, Profesionalisme.*

ID: 188

Hand Dominance on Grip Strength and Muscle Activity among Physical Education Pre-Service Teacher

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Hand dominance refers to the consistency of favouring to manipulate one hand over the other for the daily skilled activity. This study was design to evaluate the grip strength and muscle activity for the right- and left-hand dominant among pre-service physical education teacher. Fifteen (8 right-handed and 7 left-handed) subjects aged between 24-26 years old were involved in the study. The measurement of the hand grip strength and muscle activity had been measured using the EMG II (Hand Dynamometer) – BIOPAC Student Lab®. The results revealed that the right-hand grip dominant subjects exhibited stronger isometric strength and higher muscle activity than the left-hand grip dominant counterparts. However, no significance differences were shown on the grip strength between right-handed with left-handed subjects. On the other hand, significant differences had shown on the muscle activity on dominant hand preferences ($t=2.45$, $p=0.03$) and non-dominant hand preferences ($t=3.10$, $p=0.008$) between right-handed and left-handed subjects. The differences of muscle activity amplitude indicate that the non-dominant hand grip requires more electrical impulse generated by muscle cells to alter the motor control in undergoing the grip strength test.

Keywords: Hand Dominance, Grip Strength, Muscle Activity, Pre-Service Teacher, Physical Education

ID: 190

Pembelajaran Sains Secara Tidak Formal Melalui Lawatan ke Pusat Sains

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Pembelajaran sains adalah kurang berkesan sekiranya pelajar tidak dapat menguasai sesuatu konsep atau mempunyai salah konsep iaitu miskonsepsi. Miskonsepsi secara spesifiknya merupakan interpretasi berserta justifikasi yang dikemukakan adalah bercanggah dengan konsep sebenar. Miskonsepsi seringkali dikaitkan dengan pembelajaran sains secara formal di dalam kelas yang pasif, bersifat satu hala dan dianggap sudah tidak relevan pada masa kini. Pembelajaran sains secara formal juga mengehadkan implimentasi pembelajaran dalam kehidupan seharian. Pelbagai kekangan lain yang dihadapi dalam pembelajaran secara formal di sekolah. Oleh itu, kajian ini dijalankan dalam usaha memperluas transformasi pembelajaran sains kepada pembelajaran sains secara tidak formal atau Informal Science Learning (ISL). ISL yang telah diaplikasikan secara global dan dicadangkan dalam konteks pembelajaran sains di Malaysia adalah melalui lawatan ke pusat-pusat sains seperti Pusat Sains Negara dan Petrosains, Malaysia. Kajian ini turut memberi maklumat berkaitan implikasi ISL terhadap perkembangan minat dan kefahaman yang mendalam dan pembelajaran sepanjang hayat pelajar terhadap sains.

Kata Kunci: Miskonsepsi, *Informal Science Learning* (ISL), Lawatan Pusat Sains

ID: 191

Pengajaran Stem Berteraskan Al Quran: Isu Dan Permasalahan

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Pendidikan Sains, Teknologi, Kejuruteraan dan Matematik (STEM) amat penting dalam membantu pelajar berfikir tentang konsep yang dipelajari dengan kehidupan sebenar. Hal ini secara tidak langsung telah mengakibatkan STEM menjadi salah satu fokus utama dalam PPPM. Malangnya, STEM tidak menekankan komponen nilai dan akhlak yang perlu ditekankan dalam pembangunan insan mithali sebagaimana dalam Falsafah Pendidikan Kebangsaan dan matlamat utama KSSM. Selain itu, faktor pendidikan agama turut perlu diselaraskan agar segala perancangan dan tindakan yang diambil dalam memajukan negara tidak menyimpang dari landasan yang benar. Akan tetapi pendidikan sains di Malaysia dilihat dilaksanakan secara berasingan di antara ilmu sains dan ilmu tauhid. Amalan pengasingan ini menjadi faktor kerapuhan jati diri dalam masyarakat dan tujuan sebenar pembangunan pengetahuan akan terjejas. Sehubungan itu kertas kerja ini berusaha untuk mensintesis penemuan daripada penyelidikan terdahulu terhadap kepentingan pendidikan STEM dan kepentingan pengintegrasian Al-Quran dalam pendidikan. Justeru, satu penyelidikan kajian lanjutan secara empirikal mengenai menekankan aspek nilai agama dalam pendidikan STEM amat diperlukan bagi membantu guru sains khususnya guru sains yang mengajar di sekolah menengah aliran agama melaksanakan pendidikan STEM sekaligus penerapan penghayatan Al-Quran untuk melengkapkan potensi insan yang sepadu, seimbang dan menyeluruh.

Kata Kunci: Pendidikan STEM, Penghayatan Al-Quran, Guru Sains

ID: 192

The Motivation Level of Learning Chemistry among Secondary School Students

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Students enrolment in chemistry course are decreasing from elementary school towards higher education level. Studies made by some researchers issues several factors that lead to student's motivation towards the subjects itself. Many researchers found out that, the lack of motivation among students are oriented in cognitive, affective and conative aspect. Students are not cognitively motivated if they're facing the lack of understanding in the content and purpose of the activity done in the learning process. An affective motivation in learning are referring to the emotional and value of the subject learned whilst conative aspect are more focusing on willingness and effort made by students in achieving their target in their learning process. All of these three aspect of motivation must not been taken for granted in order to enhance students interest in chemistry subject not just in school but also towards higher education level.

Keywords: Students Motivation, Cognitive, Affective, Conative, Chemical Education

ID: 193

Pengaruh Peranan School Improvement Partner (Sipartner) Terhadap Kepimpinan Sekolah Menengah Di Negeri Sabah

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School Improvement Partner (SIPartner) dilaksanakan di bawah program penambahbaikan sekolah atau School Improvement Program (SIP) telah menjadi fokus pelaksanaan oleh Kementerian Pendidikan Malaysia melalui Pelan Pembangunan Pendidikan Malaysia 2013-2025. Kajian tinjauan ini bertujuan untuk mengenal pasti pengaruh peranan SIPartner terhadap kepimpinan sekolah menengah di negeri Sabah. Kajian-kajian ini berdasarkan Standard Operating Procedures (SOP) peranan SIPartner iaitu menjalankan lawatan bimbingan kepimpinan, mengendalikan kursus yang diluluskan oleh KPM dan menjadi pengantara PPD dan kepimpinan menyelesaikan masalah dan isu-isu yang dihadapi oleh kepimpinan. Tiga pemboleh ubah iaitu bimbingan, kursus dan pengantara menjadi pemboleh ubah tidak bersandar manakala kepimpinan sekolah menjadi pemboleh ubah bersandar. Seramai 182 orang pengetua dari sekolah menengah di negeri Sabah menjadi responden kajian ini. Data bagi kajian tinjauan ini diperolehi melalui soal selidik yang diadaptasi dari Swaffield (2013). Data kajian dianalisis dengan menggunakan SPSS Versi 21. Keputusan analisis regresi mudah menunjukkan bahawa bimbingan ($\beta=.653$, $p<0.05$), kursus ($\beta=.573$, $p<0.05$) dan pengantara ($\beta=.789$, $p<0.05$) memberi kesan secara positif terhadap kepimpinan sekolah dengan menjelaskan sejumlah 42.6% varians, 32.8% varians dan 62.3% varians. Selain itu, analisis regresi berganda menunjukkan sumbangan keseluruhan pemboleh ubah tak bersandar iaitu pengantara, bimbingan dan kursus yang dijalankan oleh SIPartner terhadap kepimpinan ialah sebanyak 68.2%. Dalam kes ini semua komponen dalam peranan SIPartner menjadi penyumbang kepada kepimpinan sekolah. Kesimpulannya program SIPartner yang telah dilaksanakan di sekolah-sekolah menengah di negeri Sabah didapati dapat mengupayakan kepimpinan sekolah dalam meningkatkan pencapaian sekolah.

Kata Kunci: School Improvement Partner, Kepimpinan

ID: 197

Should Algebraic Thinking Be Implemented For Teaching Algebra In Boarding School (SBP)? : Needs Analysis

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Algebraic thinking is the way of solving variables as well as way of thinking that developed through algebraic concept in learning algebra. Algebraic thinking was developed through teaching and learning of algebraic concept and procedures in the early algebras' perspective as well as extended the mathematical thinking. Furthermore, algebraic thinking helps students to connect mathematics with the real world and think abstractly. Nowadays, algebraic thinking plays a significant role of developing a conceptual understanding of algebra and thinking associated with and doing algebra. However, in Malaysian schools, learning algebra with integration of algebraic thinking is not explicitly implemented and practice. Therefore, learning algebra should be taught with integrating algebraic thinking in school which in line with the results from needs analysis that showed learning algebra with integration of Algebraic thinking should be implemented in boarding school (SBP) in Perak.

Keywords: Algebraic Thinking; Boarding School Students (SBP); Needs Analysis

ID : 200

Potentials and Challenges in the Implementation of Flipped Classroom (Abstract)

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Flipped classroom is one of the pedagogies that created from the revolution of the use of technology in education that has changed the form of teaching, and to facilitate the teaching and learning process. Through the flipped classroom method, the use of technology is capable of providing students with reference materials to learn outside of teaching and learning session before the process of teaching and learning in the classroom happens. Thus, the time in the classroom can be provided with hands-on activities and group works. Although the implementation of the flipped classroom empirically and potentially proven to be implemented more widely, but there are some issues that need to be prioritized especially in the context of the flipped classroom learning method itself. In addition, improvements in technology and equipment also contributed to the existence of some challenges in the implementation of the flipped classroom method. In addition, this paper will describe and investigate the challenges in the implementation of the flipped classroom from different aspects. This is to ensure the implementation of the flipped classroom is not just the technology usage solely. The author believes that the implementation of an effective flipped classroom should give consideration to all elements that can impact positively and negatively on this method.

Keywords : Flipped Classroom, Technology, Teaching and Learning

ID: 202

Impak Jangka Pendek Laporan Pemeriksaan Penuh Nazir Sekolah Ke Atas Pengurusan Kurikulum Sekolah Menengah Di Negeri Sabah

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Kajian ini adalah kesinambungan daripada kajian awal dalam tajuk yang sama dan telah dibentangkan dalam IEPS tahun 2014. Dalam kajian awal sebanyak sepuluh teks laporan dianalisis menggunakan kaedah kualitatif bertujuan untuk mengenal pasti impak laporan Pemeriksaan Penuh ke atas pengurusan kurikulum di sekolah menengah. Kajian awal tersebut mendapati bahawa ketidakpatuhan utama adalah pada penyediaan Rancangan Pelajaran Tahunan dan penyediaan jadual waktu. Kajian itu juga mendapati bahawa impak laporan terhadap penyediaan jadual waktu dalam tempoh enam bulan selepas Pemeriksaan Penuh adalah 80 peratus. Dengan menggunakan kaedah yang sama, kajian susulan ini menggunakan sebanyak tujuh laporan Pemeriksaan Penuh dan tujuh laporan Pemeriksaan Tindak Ikut di tujuh buah sekolah menengah di negeri Sabah. Empat daripada sekolah terlibat dalam kajian awal. Ketujuh-tujuh sekolah telah mengalami Pemeriksaan Penuh oleh Nazir Sekolah dari Jemaah Nazir dan Jaminan Kualiti, Kementerian Pendidikan Malaysia pada tahun 2006 hingga 2013. 14 teks laporan tersebut dianalisis menggunakan kaedah text descriptive oleh Shannon & Hsieh. Kajian ini mendapati bahawa ketidakpatuhan utama adalah pada penyeliaan pengajaran dan pembelajaran, penyediaan jadual waktu, penyediaan perancangan strategik kurikulum, Buku Rekod Mengajar, latihan murid dan pengurusan panitia. Kajian ini juga mendapati bahawa impak laporan terhadap penyediaan jadual waktu yang berjaya diperbetulkan oleh sekolah dalam tempoh enam bulan selepas Pemeriksaan Penuh adalah seratus peratus.

Kata kunci: Pemeriksaan Penuh, Pemeriksaan Tindak Ikut, pengurusan kurikulum, impak laporan

ID:203

Isu Pendekatan Pengajaran Kolaboratif Terhadap Pemulihan Literasi Bahasa Melayu

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Dalam kelas tahap satu terdapat murid yang telah menguasai dan belum menguasai asas membaca, menulis dan mengira (3M). Justeru itu guru perlu melaksanakan pemulihan, pengukuhan dan pengayaan bagi memastikan murid ini menguasai kemahiran asas 3M. Bagi murid yang telah menguasai guru memberikan pengayaan, manakala murid yang belum menguasai guru perlu melaksanakan pemulihan dan pengukuhan mengikut konstruk yang belum dikuasai murid berdasarkan Kurikulum Standard Sekolah Rendah (KSSR). Melaksanakan pemulihan, pengukuhan dan pengayaan bukan perkara yang mudah. Ini demikian kerana, guru perlu mengenalpasti tahap penguasaan murid dan mengabungjalin dengan aktiviti berdasarkan Kurikulum Standard Sekolah Rendah (KSSR). Bilangan murid yang ramai dalam satu kelas sehingga mencecah 40 orang murid menyukarkan pelaksanaan pemulihan, pengukuhan dan pengayaan dalam kelas. Guru juga tidak dapat mengurus tingkah laku murid dengan baik dan lebih cenderung mengajar tanpa mengikut tahap penguasaan murid. Impaknya murid yang belum menguasai akan terus tidak menguasai asas 3M. Guru pemulihan dan Guru LINUS perlu berkejasama secara kolaboratif melalui pengajaran sebagai salah satu langkah penyelesaian masalah penguasaan 3M murid. Pengajaran kolaboratif amat luas di negara-negara barat. Namun demikian bidang kajian ini amat sedikit diterokai di negara ini. Pengajaran kolaboratif ini membantu para guru dalam pelaksanaan pemulihan, pengukuhan dan pengayaan serta peningkatan penguasaan 3M murid. Oleh yang demikian kertas kerja ini akan memfokuskan kepada pendedahan kajian berkaitan pengajaran kolaboratif yang mengemukakan pendekatan khusus serta isu dalam pemulihan literasi Bahasa Melayu dan seterusnya dapat meningkatkan tahap penguasaan 3M murid.

Kata Kunci: Pengajaran Kolaboratif, Pemulihan Literasi Bahasa Melayu, Guru LINUS dan Guru Pemulihan

ID: 204

Development of Video Based on Cognitive Conflict Strategies in Learning Computer Network.

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Computer Network is one of the subjects offered to students in tertiary level either majoring in computer science or other non-major programs. This Computer Network subject is compulsory for pre-services teacher program to equip students with the skills needed to deliver information using network technologies. However, previous research claimed that students were having trouble mastering the concepts in this course. Many researches showed that video-based learning can help to stimulate students' interest towards learning. Furthermore, cognitive conflict strategy is one of important factors in conceptual change process that able to help student constructing or restoring a correct framework for their own knowledge. Due to the beneficial implications, cognitive conflict can be considered to be implemented in the video-based learning to help students in learning the Computer network subject. Therefore, the aim of this research was to develop a video for learning one subtopic in a computer network subject based on the Cognitive Conflict Strategies. The video was developed using the ADDIE Instructional Design model as a guideline. The video was tested by experts to confirm the validity of content. The modified version of the video was tested by 18 students and it showed potential consequence towards Computer Network subject

Keywords: Conceptual Change, Computer Network, Video-based learning, Cognitive Conflict Strategies

ID: 205

Investigating the Oral Communicative Ability of Graduating Students for the Workplace

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It has become vital for employers in every industry imaginable to hire personnel with an extra competitive edge at the workplace. A standout criterion at the top of an employer's requirement list is the ability to competently use the English language at the workplace which includes the ability to engage in oral interaction and possessing the functional ability in the use of the language. This has been recognised by Universiti Teknologi Malaysia (UTM) which has implemented the Test of English Communication Skills for Graduating Students (TECS). It evaluates final year students' readiness and ability in using English for the workplace environment. This study investigates the oral communicative ability of UTM final year students focusing on the linguistic features, communicative strategies and interactive ability. The methodology used in the study includes video recording of the students while taking the TECS oral component to serve as the speech samples for this study, and the transcription of the speech samples for analysis. A total of 12 sets of speech samples have been recorded and more than half of them have been transcribed. Analysis of data is still in the early stage but it is hoped that the outcome of the analysis could provide more insights into the communicative ability of graduating students, and this could further refine the competency criterion expected by workplace professionals. Hence, the expected benefits that this study will bring about will not only be limited to the developers of the test itself, but in the wider context, UTM stakeholders.

Keywords: Test of English Communication Skills (TECS); Oral Communicative Ability; Workplace

ID: 206

An Analysis of Critical Thinking Model for Video Learning Practices to Enhance Students Critical Thinking Skills

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Many challenges is faced by an educational society of the 21st century in order to increase student enactment and quality. Thus, educational institutions must ensure the quality of education provided in parallel for all levels of students. In conjunction with 21st century themes, many parties, including stakeholders, educators and civic groups have consensus that students need multiple skills to succeed at work which are creative, critical thinking, problem solving and communication. Thus, more innovative approaches in teaching such as video should be used in this era of technology instead simply depend on traditional teaching methods; . Nowadays, there are developed programs that may be served as a link from conventional teaching to teaching with technology. This Open Educational Resources (OER) program provides video as a teaching tool. The main goal of this video is to enhance the students' critical thinking skills and moving away from rote learning for a test. Critical thinking is a part of the thinking skills that help in solving any problems effectively. The skills are teachable and the teacher can create an environment to build competitive behaviour among the students. Thus, this research try to investigate the appropriate model of critical thinking skills to be embedded in video learning in order to produce good critical thinkers among undergraduate students. After being analyzed qualitatively, the Ennis's critical thinking abilities were chosen which consist of twelve critical thinking elements.

Keywords:Video learning, Critical thinking, Meta analysis

ID: 209

How Did Students Perform Evaluating and Creating Thinking in the Learning of Coordinates Topic?

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Higher-order thinking skills (HOTS) which involve high intellectual skills of cognitive process are important constituents of critical thinking. The acquisition of HOTS and critical thinking is one of the important educational agenda and becomes a critical focus in the Malaysian education system. However, the inculcation of HOTS in normal Malaysian classroom setting is said to be rather limited and often inadequate. This small scale research was conducted to study how second formers performed on two specific components of HOTS (namely Evaluating and Creating thinking) in relation to the learning of Coordinates topic. A total of 27 second formers of mixed ability were involved in this study. A specially designed test was constructed to measure their performance on the Evaluating and Creating thinking involved in the learning of Coordinates topic. A semi-structured interview approach has been adopted to collect useful qualitative information which would provide some insights related to the Evaluating and Creating thinking. Simple descriptive analyses based on Newman's Error Analysis model and thematic analysis were used to analyse the students' performance on each of these two HOTS components and the qualitative data respectively. The Newman Error Analysis suggested that many of the students encountered serious difficulties to perform Evaluating and Creating thinking skills. The results showed that most of the students are capable in performing the first stage of Newman's Model (Read and Recode) however they faced difficulties in performing the second to five stage of Newman's Model (Comprehension, Transformation, Process Skills and Encoding).

Keywords : Higher-Order Thinking Skills, Evaluating Thinking Skill, Creating Thinking Skill

ID: 210

Kaedah Pengajaran Guru Matematik bagi Meningkatkan Kemahiran Berfikir Aras Tinggi (KBAT) Pelajar

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Kaedah pengajaran guru masih lagi terikat dengan kaedah pengajaran tradisional yang lebih tertumpu kepada pendekatan prosedural berbanding pengajaran yang menekankan kepada pemikiran kritis dan kreatif. Walaupun hampir kesemua guru di Malaysia berpendapat kemahiran berfikir aras tinggi (KBAT) perlu diajar di dalam kelas, kurang dari separuh guru hanya bersedia menggunakan kemahiran tersebut dalam proses pengajaran. Justeru kertas kerja ini membincangkan tentang perbezaan kaedah pengajaran sedia ada dan kaedah pengajaran yang dapat meningkatkan KBAT pelajar bagi komponen Matematik KBSM iaitu Nombor, Bentuk dan Ruang serta Perkaitan. Perbincangan ini juga secara langsung menjelaskan tentang perbezaan amalan pengajaran di Malaysia dan luar negara bagi topik-topik dalam komponen Matematik tersebut. Daripada analisis kajian literatur yang telah dilaksanakan, penyelidik mendapati terdapat beberapa perkara yang perlu ditambah baik menerusi pengajaran guru Matematik supaya KBAT pelajar dapat ditingkatkan.

Kata Kunci : Pengajaran, Matematik, Kemahiran Berfikir Aras Tinggi, Nombor, Bentuk dan Ruang serta Perkaitan

ID: 211

Proses Pembinaan Modul Pro-Mc Physics: Fasa Analisis Dan Reka Bentuk Bagi Model Reka Bentuk Pengajaran ADDIE

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Kertas kerja ini bertujuan untuk membincangkan tentang pembinaan modul Pro-Mc Physics berdasarkan model reka bentuk pengajaran ADDIE. Modul berasaskan web ini dibina bagi membantu meningkatkan pencapaian kemahiran penyelesaian masalah Fizik di kalangan pelajar Fizik di peringkat universiti dengan memfokuskan kepada topik Mekanik. Dalam kajian ini, pembinaan modul ini adalah berdasarkan model reka bentuk pengajaran ADDIE. Ini kerana kelebihanannya berbanding dengan model yang lain seperti model ADDIE, model ASSURE, model Dick & Carey, model Hanaffin & Peck serta model waterfall. Akronim ADDIE membawa maksud bagi setiap fasanya iaitu 1) analisis, 2) reka bentuk, 3) pembangunan, 4) pelaksanaan dan 5) penilaian. Walau bagaimanapun, dalam kertas kerja ini hanya dua fasa sahaja yang akan dibincangkan iaitu fasa analisis dan reka bentuk. Berdasarkan pandangan beberapa pakar yang diperolehi, mereka mencadangkan modul berasaskan web yang dibangunkan mestilah mempunyai unsur-unsur interaktif serta penggunaan warna dan tulisan yang bersesuaian dengan peringkat umur dan tahap pengetahuan pengguna. Dapat disimpulkan berdasarkan fasa pertama dan kedua yang dilalui ini memberikan banyak input kepada penyelidik dalam membina sebuah modul berasaskan web yang baik dan menepati kehendak pengguna.

Kata kunci: Model reka bentuk pengajaran ADDIE, modul berasaskan web, penyelesaian masalah

ID: 213

Profiling Turn Taking Patterns and Word Choice in a Group Discussion

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In the workplace, English language competency correlates highly with employability. The industry has called for a valid, reliable and industry-driven English competency certification for non-native speakers of English for employment purposes. This study aims to investigate the oral communicative ability of graduating students based on their performance in the UTM Test of English Communication Skills (UTMTECS). The scope of this study focuses on profiling the students' oral interactive ability in terms of their turn taking patterns and word choice usage in a group discussion. In order to examine this, the group discussion task of the UTMTECS oral component has to be recorded. Consent was sought from the students before video recording took place. The recordings were then transcribed for analysis. Besides, a survey questionnaire was distributed to the students after they completed the oral test. The expected findings of this study includes the turn taking patterns, specifically on how a turn is gained and given through accepting, volunteering, interrupting, and nominating the next speaker in a group discussion. In addition, a list of words and phrases commonly used by the students in relation to turn taking will be formed. In this study only Level 3 achievers in the UTMTECS oral component were involved. It is hoped that this study could provide more insights into the setting of benchmark to evaluate graduating students' oral English communication competency and preparedness for the workplace.

Keywords: Oral Communicative Ability, Turn Taking Patterns, Word Choice, Group Discussion

ID: 214

A Descriptive Study Causes Involving of Stress and Coping Techniques Consumed by the Freshman Graduate Students

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This descriptive study was executed using the Islamic Azad University South Tehran Branch, to be capable of assess what may cause stress along using the actions of dealing with stress. Complete 39 Freshman Graduate Students were chosen purposely regarding collection of information. The questionnaire contains 2 parts associated with checklist, first area is actually regarding causes involving stress and second part was the Coping Techniques. Result exposed that 19 (46.44%) students had been possessing the Minor stress together with 6 (14.89%) were acquiring Modest stress along with 16 (34.90%) were having certainly no stress. Academic stress rated highest among your individual "stresses" apparented through the Freshman Graduate Students. Most of the particular graduating students, apparented difficulty all through participation with sociable life because connected with for an extended time university hours. The same as all stressful followed received from shortage involving time period regarding self-study and in addition circumstances throughout obtaining log book accomplished. Majority of students tend to utilize more associated along with healthy Coping Techniques in comparison with negative as well as unhealthy versions. Optimistic thinking along with listening to music or maybe radio were acquired.

Keywords: Freshman Graduate Students, Stress, Coping Techniques

ID: 217

Validating UTM-TECS Oral Interactions Descriptor Based on the Industry's Perspective

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Graduate employability has become more rigid nowadays whereby industries not only demand for the graduates' academic qualifications but also their ability to communicate orally in English. This has become an essential trait that employers sought in recruiting potential employees. Being competent in English communication skills would enhance the graduates' ability in establishing network with clients, taking parts in discussion, and working in teams at workplace. However, there is a lack of availability of an exit test in higher learning institutions that could disclose the graduates' communicative competence. Thus, the Test of English for Communication Skills (UTM-TECS) was developed to address this. The UTM-TECS aims to provide potential employers with a more accurate measure of graduates' readiness to function in the workplace. The descriptor for the test was developed through collaborations between language experts and employers from industries. However, since 2011, the UTM-TECS descriptor has not gone through any re-validation process. Hence, this study is conducted to re-validate the present UTM-TECS oral interactions descriptor so as to ensure it abides by the current industries' requirements for recruitment. To serve this purpose, the criteria that the industries require to assess fresh graduates' oral competencies for recruitment purpose will be examined. Then, these criteria will be compared with the existing UTM-TECS oral interactions descriptor for revalidation purpose. The data that will be obtained through interviews with HR personnel from different firms in Malaysia would be useful to outline the criteria determinants of graduates' employability. Likewise, the expected findings would also be useful in the re-validation of UTM-TECS oral interactions descriptor to ensure its quality so that the test can be a better yardstick for graduates' employability and marketability in future.

Keywords: Test of English Communication Skills (TECS); Oral Interactions Descriptors, Graduates' Employability; Target Language Usage (TLU)

ID: 218

The Cooperative Learning STAD Model Approach in Stereoisomerism of Carbon Compound

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This study aims to identify the effectiveness of using Cooperative learning STAD (Student Team Achievement Division) model on the topics of isomerism in carbon compounds. To achieve the objectives, students' understanding towards the facts and situation after exposure of the Model STAD Cooperative learning approaches is identified. This descriptive study has involved 30 students at a secondary school near Kota Tinggi. Data was collected through tests and questionnaires. Then, test score and data of the questionnaire were analysed via Statistical Package for Social Sciences (SPSS). The result was presented in the form of mean, percentage and standard deviation. Lastly, the result shows that a fact, that is the majority of students are unable to give current nomenclature and draw molecules structure of isomers suggested by IUPAC (International Units for Pure Applied Chemistry). The exposure of STAD cooperative learning approach can successfully strengthen the students' understanding towards isomerism in carbon compounds. Moreover, the students were also found having the positive perception towards STAD Cooperative learning model.

Keywords: Cooperative, STAD Model, Stereoisomerism and Carbon Compound.

ID: 219

Pendidikan Alam Sekitar di Sekolah: Isu dan Cabaran

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Pendidikan Alam Sekitar di Malaysia, khususnya di sekolah dilaksanakan melalui kaedah merentas kurikulum yang diterapkan melalui aktiviti guru dan murid semasa proses pengajaran dan pembelajaran mata pelajaran lain yang diajar di sekolah. Ini bermaksud ia tidak diajar sebagai satu mata pelajaran yang berdiri sendiri atau berasingan sebagaimana mata pelajaran lain. Pendidikan Alam Sekitar telah dilaksanakan di peringkat pra sekolah, sekolah rendah dan seterusnya sekolah menengah Namun demikian, sejauhmana Pendidikan Alam Sekitar dilaksanakan melalui merentas kurikulum sebagaimana yang diarahkan oleh Kementerian Pendidikan melalui Pusat Perkembangan Kurikulum pada tahun 1998 dengan mengeluarkan Buku Panduan Pendidikan Alam Sekitar Merentas Kurikulum mencapai matlamat masih diperkatakan. Kertas ini bertujuan untuk mengenalpasti isu-isu yang wujud dalam pelaksanaan Pendidikan Alam Sekitar di sekolah. Antara isu yang dikenalpasti menyumbang kepada tahap pelaksanaan yang rendah ialah kaedah pelaksanaan Pendidikan Alam Sekitar, panduan pelaksanaan yang kurang jelas, komitmen guru yang kurang, kurangnya pengetahuan guru, kekangan tugas guru dan peranan pihak pentadbir sekolah dalam memastikan Pendidikan Alam Sekitar dilaksanakan sebagaimana yang dikehendaki oleh Kementerian Pendidikan Malaysia. Isu yang timbul dalam pelaksanaan Pendidikan Alam Sekitar di sekolah telah menjadi cabaran dalam usaha memupuk kesedaran, sikap dan nilai cintakan alam sekitar dalam kalangan pelajar sekolah khususnya dan masyarakat Malaysia amnya. Cabaran yang wujud akan memberi impak terhadap kepentingan ilmu itu sendiri dan negara dalam menghasilkan generasi yang cintakan alam sekitar pada masa kini dan akan datang jika langkah penambahbaikan tidak dilakukan. Diharapkan melalui kajian ini, status pelaksanaan Pendidikan Alam Sekitar dalam sistem pendidikan negara dapat diberi nafas baru agar ia dapat mencapai matlamat sebagaimana yang digariskan.

Kata Kunci: Pendidikan Alam Sekitar, Sekolah, Kurikulum

ID: 220

Attribution Factors of Chemistry Anxiety: What are they?

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Chemophobia is supposedly to be known as chemistry anxiety. Chemistry anxiety will influence the development of holistic students to be as part of competent experts in scientific and technology arena in the near future. Chemistry anxiety that exist among science stream students at secondary school level tends to impairs performance and cause the low student enrollment in science field at the tertiary level. The attribution factors of chemistry anxiety that can be studied comprise of chemistry anxiety in learning, chemistry anxiety in evaluation and chemistry laboratory anxiety. Indeed, chemistry anxiety in learning aspect is anxious feeling that exists among students when they learn chemistry in classroom or laboratory while chemistry anxiety in evaluation is described as an arousal of undesirable feeling when sitting for assessment or test that related to chemistry subject and chemistry laboratory anxiety is fear of chemical substances or handling laboratory apparatus that perceived by the students when conducting experimental tasks. Determination of undesirable apprehension towards chemistry is required to be studied in order to discover preventive interventions that consequently help in cultivating science stream students' interest towards chemistry.

Keywords: Chemophobia, Students' Anxiety, Chemistry Anxiety, Chemistry Education

ID: 221

Kesediaan Guru Dalam Melaksanakan Kemahiran Berfikir Aras Tinggi Dalam Pengajaran Dan Pentaksiran Matematik

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Matematik ialah antara bidang yang terpenting dalam usaha pembangunan modal insan abad ke-21. Selari dengan itu, transisi dalam pendidikan matematik daripada penekanan kemahiran algoritma kognitif kepada kemahiran berfikir aras tinggi (KBAT) telah memberi kesan kepada pelaksanaan pengajaran dan pentaksiran matematik. Guru adalah pihak pelaksana dan amat penting dalam menentukan kejayaan aspirasi ini. Namun demikian, pemikiran aras tinggi dalam kalangan guru di Malaysia masih amat rendah dan pengajaran dan pentaksiran matematik masih bersifat prosedural yang menekankan algoritma. Menerusi kajian ini pengkaji membincangkan tentang kesediaan guru matematik dalam melaksanakan kemahiran berfikir aras tinggi dalam pengajaran dan pentaksiran. Di samping itu kajian ini juga mengenal pasti pendekatan pengajaran dan pentaksiran KBAT dalam mata pelajaran Matematik. Kajian ini melibatkan analisis dokumen daripada sumber sekunder yang terdiri daripada penerbitan jurnal, tesis, buku, prosiding dan laporan disertasi daripada dalam dan luar Negara.

Kata kunci : Kemahiran berfikir aras tinggi, Pengajaran dan pentaksiran matematik, Kesediaan guru

ID: 222

Resources Needed In Creativity Development of Building Technology Students in Nigeria Technical Colleges

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Based on Human capital theory, Availability of the required resources are essential in creativity training of students in any programme. Thus the quality of resources put into the training will determine the levels of training received by the graduates of the programme. This study therefore was set out to determine the types of resources needed in creativity training of Building Technology students in Nigeria Technical Colleges based on teachers and students' perception. The participants for the study consisted of 215 and 638 building technology teachers/experts and students respectively drawn from the South West Geo-Political Zones of Nigeria. The instrument for data collection consisted of structured questionnaires for teachers and students with Five-Point Likert scale ranging from 1-5 and with reliability coefficient of $r=0.872$ and 0.870 respectively. Data collected were analysed using Mean, Standard deviation and T-test. The findings of the study showed that the resources needed for fostering creative thinking skill include creativity books, construction plants, and Auto-CAD and internet facilities. The study further showed that there was no significant difference in the responses of the teachers/experts and the students on the needed resources except on Construction Plants and Creative teachers. It was further recommended that the findings of the study could be implemented in Nigeria Technical colleges.

Keywords: Creative Thinking, Building Technology, Resources, Technical College

ID: 223

Amalan Kepimpinan 'Turnaround' Di Sekolah Dan Kompetensi Guru Di Sekolah Negeri Sabah

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Kajian ini dijalankan bertujuan untuk mengenalpasti Amalan kepimpinan 'turnaround' di sekolah dan kompetensi guru di sekolah negeri Sabah. Kajian ini akan melibatkan sekolah rendah luar bandar yang telah mencapai status sekolah berprestasi tinggi iaitu band 1 dan band 2 berdasarkan penilaian Jemaah Nazir dan jaminan Kualiti Pendidikan Malaysia. Kajian ini akan menggunakan persampelan bertujuan (purposive sampling) yang merujuk kepada prosidur persampelan yang mana sekumpulan subjek yang mempunyai ciri-ciri tertentu dipilih sebagai responden kajian. Satu set soal selidik yang mengandungi 87 item soalan dibina dan diambil daripada kajian yang terdahulu, telah digunakan untuk mengukur perhubungan tersebut. Kajian ini menggunakan kaedah gabungan iaitu kaedah kuantitatif dan kaedah kualitatif. Bagi kaedah kuantitatif, kajian ini menggunakan pendekatan dalam bentuk tinjauan yang melibatkan 500 orang guru sekolah rendah luar bandar yang telah mencapai band 1 dan 2 manakala bagi kaedah kualitatif kajian ini akan menggunakan kaedah temu bual yang melibatkan 4 orang guru besar dan 4 orang pegawai SIP + (School Improvement Partnership Plus) Kementerian Pelajaran Malaysia. Data akan dianalisis menggunakan perisian komputer melalui program Statistical Package for Social Science (SPSS) for Window version 20.0. Manakala bagi kaedah kualitatif, data akan diperolehi melalui kaedah temubual yang akan melibatkan 4 guru besar sekolah berprestasi tinggi dan 4 orang pegawai SIP+ dari Kementerian Pelajaran Malaysia.

Katakunci: Amalan Kepimpinan, 'Turnaround', Kompetensi Guru

ID: 224

Keperluan Modul I-THINK dalam Proses Pengajaran dan Pembelajaran di Sekolah

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Pendidikan masa kini sangat menekankan penggunaan pemikiran secara kritis dan kreatif dalam pengajaran dan pembelajaran. Sehubungan dengan itu, kerajaan melalui Agensi Inovasi Malaysia (AIM) dengan kerjasama Kementerian Pelajaran Malaysia (KPM) telah memperkenalkan Program i-THINK. Di sekolah-sekolah seluruh Malaysia dengan tujuan untuk mempertingkatkan dan membudayakan kemahiran berfikir dalam pengajaran dan pembelajaran bagi melahirkan murid yang berfikir kreatif. Guru-guru telah didedahkan dengan program i-THINK melalui kursus-kursus yang telah dianjurkan oleh pihak KPM mahu pun pihak sekolah. Oleh itu, satu kajian dijalankan untuk mengenal pasti keperluan pembinaan modul i-THINK dalam melaksanakan program ini dalam proses pengajaran dan pembelajaran di bilik darjah. Seramai 7 orang guru daripada dua buah sekolah menengah kebangsaan dan sekolah menengah kebangsaan (agama) terlibat dalam kajian awal ini. Temu bual separa terbuka telah dijalankan dalam kajian ini untuk mengenal pasti keperluan pembinaan modul i-THINK. Hasil temu bual menunjukkan bahawa guru memerlukan modul ini supaya apa yang diajar dalam bilik darjah dapat diselaraskan di semua sekolah seluruh Malaysia. Guru terlibat juga menyatakan wajar sekiranya mereka dibekalkan modul mengikut mata pelajaran yang diajar. Dengan adanya modul pengajaran dan pembelajaran dalam bilik darjah dapat diselaraskan secara berstruktur di semua sekolah-sekolah di Malaysia. Oleh itu, wajar bagi pihak KPM membekalkan modul mengikut mata pelajaran sebagai panduan kepada guru dalam melaksanakan pengajaran dan pembelajaran dalam bilik darjah.

Kata Kunci: Program i-THINK, kemahiran berfikir, modul i-THINK

ID: 225

Defining and Developing Expertise in Higher Education

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Effective succession plan of academics at higher education institutions is a complex process as it involves a wide spectrum of experts with constantly updating fields of expertise. In the academic world, the information of expertise is not always uniquely defined and often interdisciplinary. In addition, the academic's expertise is highly likely to evolve over the time of his or her services. Consequently, the characterization, storage and updating of such data in accordance to the needs of every individual academic or disciplines becomes difficult and problematic. This paper reports a critical review on the importance and problems related to the data of expertise in higher education institutions. It includes the needs and ways of defining expertise among academics within a big faculty comprising a combination of disciplines. This information is then used to propose an approach to design and develop a simple management information system to store and manage data of expertise among academics at higher education institutions.

Keywords: defining expert, expertise, data management

ID: 227

Dominant Personality Traits among Engineering Students: Implication for Career Decision Making

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Understanding of one's Personality traits can facilitate an intrinsic motivation towards appropriate creativity and career decision making process among undergraduate students. Thus the choice of career outside one's personality traits can cause mismatch and unsustainability in the chosen career in future. This study therefore was carried out to determine the dominant personality traits among engineering undergraduates with the aim of finding out their potentials for sustainability and career development based on their personality traits. The sample of the study consisted of 175 students randomly selected from Universiti Teknologi Malaysia. The design of the study was a quantitative type using Tajma Personality Profile 2nd edition (TPP2). The study showed that the instrument had reliability coefficient (r) = 0.96. Data collected was analysed based on the recommended Scoring parameter of the instrument and other descriptive analysis. The finding of the study showed that the students' traits matched their course and can help them acquire creativity in the same. Also their dominant personality traits were found to include: Analytical, Cross-Cultural, Caring, Achievement. Thus the students' chosen career was found to have matched their personality traits and there is potentiality for creativity development.

Keywords: Personality1, Personality Traits2, Career Decision Making 3, Engineering students 4, Undergraduates5, creativity 6

ID: 228

Pengetahuan Pedagogi Kandungan Bagi Mata pelajaran Kimia: Satu Meta Analisis

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Pengetahuan pedagogi kandungan (PPK) merupakan satu pengetahuan yang perlu dimiliki oleh seorang guru bagi mengubah pengetahuan kandungan yang dimiliki oleh guru dapat diubah kepada pengetahuan yang boleh diajar dan difahami oleh murid. Secara konsepnya pengetahuan pedagogi kandungan terdiri daripada pengetahuan kandungan dan pengetahuan pedagogi. PPK penting dalam meningkatkan kualiti pengajaran guru dan pencapaian murid. Satu kajian meta analisis dijalankan untuk menyiasat perjalanan penyelidikan masa kini bagi PPK bagi mata pelajaran kimia. Hasil kajian mendapati kebanyakan kajian yang dijalankan dalam mata pelajaran kimia lebih kepada penggunaan alat CoRe (Content representative) dalam penghasilan rancangan pengajaran dan penghasilan modul pengajaran yang bertujuan meningkatkan pencapaian murid. Lebih banyak kajian diharapkan dapat dijalankan dalam kalangan guru bagi menghasilkan PPK bagi topik spesifik kimia. Kolaboratif antara guru-guru kimia sama ada guru baru, guru pelatih dan guru pakar di harap dapat membangunkan profesionalisma dalam kalangan guru kimia.

Keywords: Pedagogical Content Knowledge, Covalent Bonding, Teaching Modules, Model

ID: 231

Amalan Spiritual Islam dan Perubahan Tingkahlaku Penagih Dadah(Abstrak)

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Masalah penagihan dadah saban tahun menunjukkan peningkatan dan kian membimbangkan. Paling mengkusarkan apabila masalah ini didominasi Melayu Muslim sedangkan penagihan dadah jelas dilarang di dalam Islam. Fenomena ini sedikit sebanyak menunjukkan bahawa ajaran Islam yang dianuti tidak diamalkan dengan sebaiknya. Ini kerana sekiranya ajaran Islam dipraktikkan dan dihayati dalam kehidupan seharian seseorang, perkara-perkara negatif seperti masalah dadah ini tidak akan berlaku. Kewujudan pusat-pusat pemulihan dadah yang menggunakan kaedah spiritual Islam sebagai pendekatan untuk merangsang perubahan tingkahlaku penagih mula mendapat sambutan dalam kalangan masyarakat. Ini menunjukkan masyarakat sudah mulai sedar akan peranan dan kepentingan pelaksanaan dan amalan spiritual Islam dalam mentarbiah tingkahlaku seseorang individu khususnya penagih dadah ke arah tingkahlaku positif. Artikel ini meninjau berkenaan amalan spiritual Islam yang paling kerap dilaksanakan di pusat-pusat pemulihan dadah persendirian. Selain itu, artikel turut mengkaji kedudukan amalan spiritual Islam terhadap perubahan tingkahlaku penagih. Kajian deskriptif yang melibatkan kesemua subjek dalam populasi yang dikaji ini menggunakan soal selidik sebagai instrumen kajian. Hasil kajian yang dijalankan ke atas 123 orang responden mendapati amalan solat paling kerap dilaksanakan di pusat pemulihan dadah, manakala amalan berzikir pula didapati paling berkesan dalam membentuk tingkahlaku positif penagih. Justeru, disarankan agar amalan spiritual Islam khususnya amalan solat dan zikir diterapkan sebaik mungkin di dalam pusat-pusat pemulihan dadah seluruh Malaysia.

Katakunci: Spiritual Islam, Penagih Dadah, Tingkahlaku Positif

ID: 233

Enhancing High Order Thinking Skills In Science Through Lesson Study Approach

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Higher Order Thinking Skills (HOTS) is one of the most essential skills in the 21st century education. However, the skill set is still a low among students in Malaysia, especially in science subjects. Ministry of Education (MOE) has taken several measures including the introduction of "Lesson Study" as a new approach in teaching and learning process in schools. This new approach originating from Japan has been given new impetus by the Teacher Education Division (BPG) to suit the implementation in Malaysia. Lesson Study approach has been widely used by many countries such as the United States and Singapore to enhance students' higher-order thinking skills in the classroom. Lesson Study is conducted in groups involving several teachers and a group of students. It is conducted through the following steps; 1) Set the teaching goal, 2) developing lesson plans, 3) teaching / observing teaching, 4) reflection on teaching, 5) adjustment of the lesson plan when necessary. These steps can be repeated several cycles and it would certainly improve and create the best practices in the classroom as a result from this approach. Lesson Study approaches which are equipped with particular focus in its implementation will bring huge outcome to both teachers and students. From the aspect of teachers, lesson study will improve teachers' professionalism through the enhancement of their knowledge, skills and confidence in teaching. As for the students, they will have opportunities to master these skills better due to the teaching and learning sessions that have been designed to emphasize particular aspects such as higher order thinking skills.

Keywords: High Order Thinking Skills, Lesson Study

ID: 235

Development and Impact of English Learning Courseware “EzE” to Diploma Students At KPM Bandar Penawar

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Multimedia courseware is one of the media to improve the teaching and learning process. The principles of multimedia learning should be viewed as instructional methods with its primary goal to foster meaningful learning. Therefore, the objectives of this study are to design an English courseware based on Cognitive Theory Multimedia Learning approaches to help students nurture their knowledge on types of basic tenses. In addition, this study also evaluates the impact of using courseware in the teaching of basic tenses among the average diploma students. A quasi-experimental method will be used in this study. The study sample involves 80 students of semester 1 from KPM Bandar Penawar, Johor. The sample is divided into two groups, the experimental group and the control group. Each group consists of 40 students. To identify the effectiveness of the courseware, the patterns of students' answers in both tests will be collected and analyzed through pre and post-tests in the evaluation phase. The questionnaire instrument will be used to investigate students' and teachers' perception towards the courseware. Also, in this research we will develop an English courseware for teaching basic tenses for KPM students. Hopefully, this courseware will motivate English teachers to develop their own courseware by designing, preparing content and delivering learning materials to assist students in understanding the concepts of learning English tenses using technology.

Keywords: Courseware; Meaningful Learning; CTML, English Tenses

ID: 236

Transformational Leadership and Innovation: A Meta-Analysis

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The needs of society towards new inventions have led to the formation of advanced technology. Most organizations are now equipped with Research and Development (R&D) department to cater to this issue. Innovation, apart from other organizational aspects, is what keeping the organizations operating and creating a competitive advantage environment. It is an introduction of any new product, process or system into an organization. It also provides sustainability for the organizations. In order to encourage innovation, leadership is very much needed. Leaders are those who drive and support culture in most organizations. Being a shared and collaborative leadership style, transformational leadership is seen to have a positive effect towards innovation. There are four core components in transformational leadership. The intellectual stimulation component is the one component related to leaders' support for innovation where they encourage followers to be creative and innovative by questioning assumptions, reframing problems and approaching old situation in new ways. This will encourage the creation of new ideas and approaches. Thus, the purpose of this study is to identify the relationship between transformational leadership and innovation.

Keywords: Transformational leadership; Innovation; Higher educational institution

ID: 237

Project-Based Learning : Multitude of Strategies Critical for Success In 21st Century

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This is a conceptual paper to study project-based learning as an approach to creating learning environments where students create their own knowledge. A brief discussion on previous research and the theoretical foundations of project-based learning. The paper then examines that Project-Based Learning (PjBL) provides opportunities for students to learn deep content knowledge and 21st century skills. The PjBL is a method for imparting students' and pupils' thinking competencies. First reference about the project-based learning comes from the beginning of the 20th century. PjBL is an innovative approach to learning that teaches a multitude of strategies critical for success in the 21st century. Project-based learning is described by many definitions. Each of these definitions contains a solution of a problem by the group of students. This method showcases a different role of the teacher in comparison to the traditional teaching method. The teacher must be a very good facilitator for the successful implementation of this method to the curriculum. PjBL is a key strategy for creating independent thinkers and learners. This paper also describes the effects of PjBL on pupils' learning and attitudes. Learning responsibility, independence, and discipline are three outcomes of PjBL.

Keywords: Project-Based Learning; Definitions of Project-Based Learning; 21st Century Skills

ID: 239

Personaliti Kaunselor Penentu Prestasi Kerja (Suatu Tinjauan Psikometrik TAJMA Edisi 2)

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Suatu ujian psikometrik dalam proses kaunseling adalah membantu dalam mengenalpasti bentuk intervensi dan psikoterapi yang tepat kepada klien. Konsep yang sama untuk mengenalpasti kompetensi Kaunselor. Melalui kajian tinjauan, sebuah psikometrik inovasi tempatan, Profil Personaliti TAJMA Edisi 2 (PPT2) diaplikasikan untuk meneroka 12 tahap tret personaliti kumpulan Kaunselor dari Institusi Pendidikan Tinggi Awam Malaysia. PPT2 mengukur tret personaliti Asertif (AS), Analitikal (AN), Keterbukaan (KT), Keyakinan Diri (KD), Kepimpinan (KP), Jati Diri (JD), Prihatin (PT), Silang Budaya (SB), Pencapaian (PN), Integriti (IG), Patriotisme (PM) ,dan Ketidakselarasan (KS). Untuk analisis deskriptif, hanya empat (4) tret personaliti PPT2 menjadi fokus kajian. Dapatan menjelaskan tahap tret personaliti PPT2 kumpulan Kaunselor itu berada di tahap sederhana dan rendah dan tret KS menunjukkan tahap bukti kejujuran dapatan kumpulan ini. Jelasnya, tret personaliti berupaya menggambarkan tahap kompetensi profesion Kaunselor. Kompetensi Kaunselor adalah berpandukan Akta Kaunselor 580 dan Kod Etika American Counseling Association (ACA) Edisi 2014.

Katakunci: Kaunselor;Psikometrik TAJMA; Kompetensi

ID: 240

Integrating Serious Game For English Language Learning

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Serious games (SGs) are increasing rapidly in many application areas concerning education, health care, military and cultural heritage. SG is one of the new learning methods that has the real game components and educational outlined purposes, suitable for teaching and learning and to cater the new age learners' group mainly comprises the Generation Y. Nevertheless, there is a lack of research exploring SG in language learning. Therefore, the aim of this paper is to (1) review the concept of SG; and (2) to explore and discuss the potential of integrating SG for English language learning.

Keywords: Serious Game; language learning; Overlapping Concepts

Keywords: Serious Game; language learning; Overlapping Concepts

ID: 241

Penggunaan Robotik sebagai Alat dalam Pengajaran dan Pembelajaran Sains, Teknologi, Kejuruteraan dan Matematik

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Media dan teknologi pembelajaran telah banyak mempengaruhi corak pendidikan di seluruh dunia. Ini dapat dilihat menerusi pengevolusian dalam kaedah pendidikan di China menekankan keperluan pendekatan pengajaran yang terbaru dalam menggantikan pembelajaran tradisional bagi menyediakan lebih ramai pelajar untuk berjaya dalam abad ke-21. Maka, penggunaan robotik dijadikan sebagai langkah inovasi dalam pengajaran dan pembelajaran diperingkat dunia. Pembelajaran menerusi robotik dilihat sebagai salah satu cara untuk menarik minat bagi pelajar yang bergelut melalui pembelajaran secara konvensional di sekolah. Kajian ini juga tidak terhad kepada mana-mana pendekatan pembelajaran. Hal ini disebabkan sifat robotik itu sendiri yang boleh fleksibel dan amat inklusif bagi pelajar yang berbakat dan pelajar yang mempunyai masalah pembelajaran. Justeru, kertas kerja ini akan membentangkan meta analisis tentang (a) mengenalpasti jenis robotik yang digunakan di peringkat sekolah (b) mengenal pasti kajian berkenaan mengaplikasi robotik sebagai alat pendidikan dalam bidang STEM (c) membentangkan sintesis bukti empirikal pada keberkesanan pendidikan robotik menerusi kaedah kajian kuantitatif yang dipilih.

Kata Kunci: Robotik; STEM, Alat Bantu Mengajar

ID: 245

**Kompetensi, Persepsi dan Kesiediaan Guru-guru Bukan Opsyen di Daerah Kulaijaya dalam
Perlaksanaan Kurikulum Teknologi Maklumat dan Komunikasi (TMK)**

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Kementerian Pendidikan telah merangka Pelan Pembangunan Pendidikan Malaysia (PPPM) 2013-2025 untuk memperkenalkan asas Teknologi Maklumat dan Komunikasi (TMK) dalam pendidikan. Pada 2014, mata pelajaran TMK telah diperkenalkan dalam Kurikulum Standard Sekolah Rendah (KSSR) tahap dua. Kajian kuantitatif ini bertujuan untuk mengkaji tahap kompetensi TMK guru-guru bukan opsyen di daerah Kulaijaya, Johor serta persepsi dan kesiediaan mereka untuk mengajar mata pelajaran TMK di tahap dua sekolah rendah di daerah ini. Data diperolehi dengan menggunakan kaedah soal selidik di mana borang soal selidik terbahagi kepada empat bahagian iaitu bahagian A, B, C dan D. Item soal selidik Bahagian A ialah soal selidik demografi yang dibina oleh penyelidik. Item Bahagian B pula adalah borang soal selidik asal daripada kajian yang dilakukan oleh Christensen (1997) iaitu Teachers' Views of Technology and Teaching Scale (TVTT) dan Bahagian C adalah soal-selidik kesiediaan guru melaksanakan kurikulum TMK yang dibina oleh penyelidik. Manakala item bahagian D ialah borang yang telah diubah daripada Basic Technology Competencies for Educators Inventory (BTCEI). Seterusnya, pada Oktober hingga November 2015, data-data mentah dianalisis dengan menggunakan perisian Statiscal Package For Scienses Sosial (SPSS) bagi mengetahui frekuensi, min, sisihan piawai, peratusan setiap item, dan korelasi. Pemilihan 52 orang peserta kajian adalah berdasarkan Jadual Krejcie dan Morgan (1970) bagi memilih guru bukan opsyen yang mengajar mata pelajaran Teknologi Maklumat & Komunikasi di daerah Kulaijaya.

Kata Kunci: kompetensi guru, KSSR, teknologi maklumat dan komunikasi

ID: 246

Kekangan dalam Pengajaran dan Pembelajaran bagi Kursus Teknologi Elektrik di Kolej Vokasional

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Dalam Rancangan Malaysia ke Sebelas (RMK 11), pembangunan modal insan yang berkemahiran dan berpengetahuan diberi penekanan oleh kerajaan untuk memacu arus pembangunan negara demi mencapai status negara maju pada tahun 2020. Bagi merealisasikan matlamat ini, penambahbaikan harus dilakukan dalam sistem pendidikan kini dengan memberi penekanan dalam pengajaran dan pembelajaran. Untuk menambah baik kaedah pengajaran dan pembelajaran ini, pengkaji menjalankan kajian untuk mengenal pasti kekangan dan masalah dalam pengajaran dan pembelajaran yang dihadapi oleh pensyarah dan pelajar bagi Kursus Teknologi Elektrik di Kolej Vokasional. Sampel kajian ini terdiri daripada sebelas orang pensyarah di Kolej Vokasional yang mengajar Kursus Teknologi Elektrik di Semenanjung Malaysia. Reka bentuk kajian ini adalah kajian kualitatif. Instrumen kajian yang digunakan adalah temu bual tidak berstruktur. Kaedah analisis data adalah menggunakan analisis tema terhadap transkrip temu bual. Dapatan kajian ini mendapati terdapat tiga masalah yang dihadapi oleh pensyarah dan pelajar dalam pengajaran dan pembelajaran bagi Kursus Teknologi Elektrik di Kolej Vokasional iaitu kekangan masa, peraturan terhad dan tidak terkini serta pelajar berasa bosan dan tidak menunjukkan minat untuk mendalami teori pembelajaran. Implikasi daripada kajian ini dapat digunakan sebagai panduan dalam kajian-kajian akan datang untuk mencari penyelesaian kepada masalah yang dinyatakan dalam kajian ini.

Kata Kunci: Pengajaran, Pembelajaran, Elektrik, Pensyarah Dan Pelajar

ID: 247

Tingkah Laku Moral Dalam Kalangan Pelajar Sekolah Rendah

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Kertas kerja ini ditulis untuk membincangkan isu salah laku moral dalam kalangan pelajar dan faktor-faktor berkaitan dengannya. Kajian-kajian lepas yang dikemukakan menunjukkan salah laku moral dalam kalangan pelajar semakin meningkat dan kompleks selari dengan perkembangan semasa. Namun begitu satu perkara yang sangat penting diutarakan adalah bagaimana salah laku tersebut boleh terbentuk. Faktor-faktor seperti pengaruh ibubapa, rakan sebaya, persekitaran dan sekolah merupakan antara faktor kritikal kepada pembentukan tingkah laku moral dalam kalangan pelajar. Oleh itu dapat dikatakan bahawa untuk membentuk tingkah laku moral yang positif ibubapa perlu memainkan peranan yang sewajarnya, pemilihan rakan sebaya dilakukan dengan lebih efektif manakala sekolah meneruskan pendekatan dengan pendidikan formal.

Kata Kunci: Tingkah Laku Moral; Peranan Ibubapa; Rakan Sebaya; Peranan Sekolah

ID: 248

Meta-Analysis Konstruk Pengetahuan Dan Kemahiran Penyelidikan Bagi Pensyarah Institut Pendidikan Guru Malaysia

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Sistem pendidikan berkualiti merupakan pemacu kepada hasrat kerajaan Malaysia menuju status negara maju pada Tahun 2020 yang mana hasrat ini akan tercapai dengan menitikberatkan agenda penyelidikan dan inovasi dalam pendidikan. Sehubungan itu, sebagai sebuah institut perguruan yang melahirkan guru terlatih, Oleh itu Institut Pendidikan Guru Malaysia (IPGM) seharusnya bertanggungjawab dalam merealisasi hasrat Kementerian Pendidikan Malaysia (KPM) dengan menekankan kompetensi penyelidikan dalam membangunkan keterampilan guru-guru di Malaysia. Oleh itu, pensyarah IPGM seharusnya mempunyai tahap pengetahuan dan kemahiran yang tinggi dalam aspek penyelidikan bagi melatih bakal-bakal guru tersebut. Oleh yang demikian, tujuan kajian ini adalah bagi mengenal pasti konstruk dan dimensionaliti pengetahuan dan kemahiran penyelidikan bagi pensyarah IPGM menggunakan kaedah meta analisis. Dalam kajian keperluan ini pengkaji menggunakan dua pendekatan pengumpulan data iaitu sorotan literatur dan temu bual (seorang pensyarah kanan yang terlibat mengurus dan mengajar kursus penyelidikan). Fasa konseptualisasi ini telah menghasilkan matriks konstruk pengetahuan dan kemahiran penyelidikan pensyarah IPGM di mana konstruk pengetahuan merangkumi pengetahuan tentang metodologi, etika penyelidikan, teknologi dan pengurusan. Konstruk kemahiran pula merangkumi kompetensi komunikasi, penulisan laporan serta kemahiran pemikiran kritikal.

Kata Kunci: Meta-analisis Pengetahuan dan Kemahiran Penyelidikan, Pensyarah IPGM

ID: 249

Reading Habits Among Adolescence: A Concept Paper

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In this article the author is proposing a research in factors that affects reading habits among Malaysian students in secondary education. The proposed research is taking into accounts among others: academic achievements, gender, socio-economic relationship and prevailing Malaysian culture in the discussion. The proposed research also will suggest ways to increase intrinsic reading motivation among the suggested focused group. Methodologies identified for this research are questionnaire and interview. At the end of research, the author will conclude if intrinsic motivation increased reading habit among secondary students in Malaysia.

Keywords: Intrinsic Motivation

ID: 250

THE EFFECTIVENESS OF APPLYING BEHAVIORAL TREATMENT FOR STUDENTS WITH AUTISM IN GENERAL PHYSICAL EDUCATION

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Autism is a complex developmental disability that typically appears in the first three years of life; it is the result of a neurological disorder that affects the normal functioning of the brain, affecting development in the areas of social interaction and communication. In general, Students with Autism have difficulty with social interactions, communicating, and using sensory information. Autism also affects children's abilities to play and acquire leisure skills. A child with Autism may exhibit motor skills, fitness performance, participation behaviors, and intellectual functions that are below the expected range for a given age. These challenges make it difficult for physical education teachers to fully include children with Autism in their general physical education (GPE) curriculum. In this paper, we review the nature and frequency of behavioral treatment among students with Autism and other individuals during various tasks in general physical education (GPE), relative to behavioral treatment in other education settings. We conclude that further strategies of including children with Autism in General Physical Education (GPE) needed to develop a highly systematic, effective technology of behavior change, including strategies for improving the efficacy of less intrusive procedures and for successfully fading treatment. If physical education does provide a social environment unique from the typical classroom, then it becomes important to understand whether or not it is actually fostering social interactions. Due to the high prevalence rates of youths with Autism and the common practice of inclusion in GPE, it is critical to learn what is naturally occurring in the GPE setting. These baseline data on interactions and tasks can be utilized to set the social goals of an intervention or applying behavioral treatment.

Keywords: Behavioral Treatment, General Physical Education, Autism

ID: 251

Green Chemistry Education Through Storytelling In Non-Formal Setting For Malaysian Secondary Students

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Synthetic chemicals are known to be one of the main sources of pollution. In the case of Malaysia, there is a need to educate secondary students on the chemicals used in everyday lives to prevent pollution and health hazards. This could be achieved by instilling green Chemistry principles. The purpose of this study is to develop a module to explore the knowledge of secondary students through context-based storytelling green chemistry activity in non-formal setting. The module highlights 5 of the 12 green Chemistry principles using relate, experiencing, applying, cooperating and transferring (REACT) strategy. One classroom Chemistry teacher and twenty-two form 4 secondary students from Hin Hua High School, Klang were selected via purposeful sampling. The teacher was briefed by the researcher on the storytelling module before the implementation was made. Data collected using open ended teacher's interviews, students' interviews and activities of video capture. The data was analyzed with TRANSANA transcription and critical episodes were identified. The findings show that students lack of the necessary knowledge to perform any possible future actions as highlighted by green chemistry principles after learning the module. However, the knowledge learnt through the module activity was found to be useful for the students' everyday life in chemical awareness and hazard prevention. This article suggests more activities should be included in the module to enhance green chemistry principles.

Keywords: Green Chemistry; Context-Based, Non-Formal; Secondary School; Storytelling

ID: 253

Malaysian Preschoolers' Social-Emotional Competencies: A Preliminary Study Using MySECI

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The purpose of this study is to measure preschool children's social emotional competencies (SEC) based on the Malaysian context using MySECI (Malaysia Social Emotional Inventory), an SEC inventory specially developed to provide parents, teachers and professionals with a standardized, norm-referenced, reliable and valid instrument. A pool of 50 items were created for MySECI, representing eight clusters of SEC in children: self-awareness, social awareness, self-management, relationship management, attachment, communication, responsible decision making and pro-social skills. This preliminary study involved two public Annex preschools in Johor Bahru, purposely selected with 49 preschool children as respondents. Results showed that My-SECI has high reliability index of Alpha Cronbach-Teachers .98. Initial findings also showed that children's SEC development differ according to age (for 5 years old Mean = 2.98 and 6 years old Mean = 3.37) and gender (Boys' Mean = 3.16 and Girls' Mean = 3.33). Overall results indicated that girls scored significantly higher in all the eight clusters of SEC in MySECI. This finding has also been proven in other research showing girls scoring higher SEC compared to boys in the same age group. These findings raise interesting questions regarding social emotional development of boys and girls, especially in the context of schools, where SEC has been established as important predictors of children's emotional wellbeing, school readiness, academic achievements and future success in life. Results from this study also indicated that MySECI holds promise as a reliable and valid measure of social emotional competencies in young children for the Malaysian context.

Keywords: Social-Emotional Competency, Preschool, Inventory, Gender

ID: 254

Pilot Study of Innovation Perspective on Universiti Teknologi Malaysia (UTM) Undergraduate Students

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Since the establishment of UTM-CSI in 2010, various efforts have been made to foster innovation and to recognize individuals who have managed to develop innovation and creativity in Malaysia in improving the standard of living and quality of life. The objective of this study is to develop an instrument in measuring three constructs; Human Capital Innovativeness, Culture Innovativeness and Leadership Innovativeness which have good features in terms of reliability. This study is a pilot study with a quantitative approach using survey method by questionnaire. The data have been analysis using the Statistical Package for Social Sciences version 19. Samples for this study are selected using random sampling with the feature of those who are undergraduate students in Universiti Teknologi Malaysia, Skudai. The results found that Human Capital Innovativeness, Culture Innovativeness and Leadership Innovativeness are highly recommended constructs in measuring students' innovation level since the instrument reliability consist of 132 items have achieved 0.96 cronbach's alpha. However, some sub constructs showed poor reliability as they have croanbach's alpha value above 0.5 regarding to benchmark scale recommended by George and Mallery (2003). As a result, a total of 128 needs to be retained since some items are required to be improved and removed. Future work will be discussed on further analysis on actual survey.

Keywords: Instrument, Innovation, Reliability, Pilot Test

ID: 256

Masalah Disiplin Kritikal dalam Kalangan Pelajar

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Peningkatan masalah disiplin kritikal dikalangan pelajar sekolah menengah amat membimbangkan kita. Banyak masalah-masalah disiplin yang terpapar di media-media perdana tentang masalah disiplin yang berlaku di peringkat sekolah rendah dan peringkat sekolah menengah. Antaranya kes buli, ponteng sekolah, pergaduhan, cabul, seks, merokok, dadah dan sebagainya. Melalui kajian yang dijalankan ini, pengkaji menfokuskan tentang masalah disiplin yang amat membimbangkan di daerah Batu Pahat, Johor iaitu masalah seksual dan buli dalam kalangan pelajar. Ia hasil temubual yang telah dijalankan dengan Penolong Pegawai Pendidikan (Unit Hal Ehwal Kemanusiaan). Objektif kajian ini ialah untuk profil pelajar bermasalah, faktor-faktor masalah disiplin kritikal ini berlaku dan harapan serta halatuju pelajar yang mempunyai masalah seksual dan buli ini. Kaedah yang digunakan adalah kaedah kualitatif iaitu dengan menjalankan temubual dengan 7 orang pelajar sekolah menengah yang terlibat dengan masalah seks dan buli di daerah Batu Pahat. Selain temubual, pengkaji juga membuat analisis dokumen iaitu analisis jurnal dan artikel yang berkaitan. Hasil dapatan kajian menunjukkan bahawa profil pelajar yang bermasalah seksual dan buli ini adalah dari kalangan keluarga yang mempunyai SES yang rendah dan latarbelakang keluarga yang bermasalah. Dapatan kajian juga menunjukkan bahawa faktor dominan yang menyebabkan masalah ini berlaku ialah faktor keluarga dan faktor diri pelajar. Manakala halatuju dan harapan yang pelajar amat harapkan ialah keluarga yang bahagia, perhatian dan kasih sayang daripada ibu bapa.

Kata Kunci: Disiplin Kritikal, Pelajar, Seksual, Buli

ID: 258

Meningkatkan Profisiensi Murid Tahun Empat Perimeter Menggunakan Pendekatan Konkrit-Gambar-

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Kajian bertujuan untuk meningkatkan penguasaan murid tahun empat dalam perimeter menggunakan pendekatan konkrit-gambar-abstrak (KGA). Kajian ini menggunakan reka bentuk kumpulan kawalan tidak setara dan pensampelan rawak berkelompok untuk memilih sampel kajian. Pada peringkat ini, kertas hanya membincangkan tentang hasil kajian rintis yang melibatkan sampel tujuh puluh dua murid tahun empat dari Sekolah Kebangsaan di Pulau Pinang. 37 murid terlibat dalam kumpulan eksperimen dan 35 orang murid adalah dalam kumpulan kawalan. Keputusan Analisis Kovarians (ANCOVA) satu hala menunjukkan bahawa terdapat perbezaan yang signifikan dalam min skor ujian pasca perimeter bagi segi empat sama, segi empat tepat dan segi tiga antara murid-murid tahun empat yang mempelajari konsep ukuran melalui pendekatan KGA dan murid-murid tahun empat yang mempelajari konsep ukuran melalui pendekatan konvensional dengan min skor ujian pra bagi segi empat sama, segi empat tepat dan segi tiga sebagai kovariat serta hasilnya menunjukkan kumpulan eksperimen mengatasi kumpulan kawalan.

Kata Kunci: Pendekatan Konkrit-Gambar-Abstrak; Profisiensi; Matematik Tahun Empat

ID: 259

Keperluan Pembinaan Struktur Kurikulum Kursus Penghasilan dan Pengkomersialan Makanan

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Malaysia mempunyai banyak agensi kerajaan yang membantu pengusaha PKS makanan dalam bentuk latihan inovasi dan teknologi, modal insan, pembiayaan, akses pasaran dan pembangunan infrastruktur. Walau bagaimanapun sehingga 2014, jumlah perusahaan firma besar dalam penghasilan produk makanan hanya 2.7%. Oleh itu kajian bagi mengenalpasti kelemahan latihan penghasilan makanan dan pengkomersialan sediada yang dikendalikan oleh agensi tersebut telah dijalankan. Kajian ini mengaplikasi rekabentuk kajian kualitatif. 20 sampel dipilih secara bertujuan daripada kalangan bekas peserta program yang pernah mendapat latihan penghasilan dan pengkomersialan makanan yang dikendalikan oleh mana-mana daripada agensi latihan tersebut. Pengumpulan data menggunakan kaedah temubual. Dapatan kajian menunjukkan terdapat kelemahan dalam latihan yang diberi dari aspek tidak menyediakan struktur kurikulum yang terancang, kandungan pelajaran latihan yang tiada kesinambungan di antara satu sama lain. Latihan berbentuk amali tidak dijalankan di tempat yang kondusif, jurulatih latihan kurang mahir, strategi pengajaran latihan dijalankan berpusatkan jurulatih dan tiada penilaian penguasaan isi kandungan latihan. Dengan mengambil kira kelemahan – kelemahan tersebut kajian ini mencadangkan kurikulum latihan bagi penghasilan dan pengkomersialan produk makanan perlu dibangunkan.

Kata kunci: Struktur Kurikulum, Penghasilan Makanan, Pengkomersialan

ID: 263

Investigating the Requirements of Fresh Graduates from the Industry's Perspective

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Due to the growing demand of society and industry in hiring new employees, the requirements for graduates' employability have increased. The selection and recruitment process conducted by the company have becoming more challenging as the fresh graduates are expected to perform certain employability skills in which Bridgstock (2009) refers as essential requirements and competencies owned by an individual to meet the needs of the labor market and the same time to attract the potential employers during the recruitment process. Therefore, this study was carried out to find out the criteria expected by the industry in assessing fresh graduates' during the recruitment process. Besides that, in order to enhance UTM-TECS test descriptors, this study also aimed to compare the criteria obtained from the industry with the present UTM-TECS assessment. A qualitative methodology was used to obtain the necessary data. Interview sessions were conducted among the personnel of the selected companies. The results have so far revealed that most of the companies expected the candidates to have both high technical expertise or also known as 'hard skills' and to demonstrate good employability skills or the 'soft skills'. The soft skills in which consisted of graduates' communication skills, problem solving skills, interpersonal skills and the ability to be flexible were significantly to be the most relevant skills expected by the industry. Hence, the results obtained would be useful to determine the expected graduates' employability requirements upon the recruitment process. At the same time, the requirements obtained from the study would be helpful in assessing UTM students during the TECS sessions thus enhancing and refining quality of the test descriptors as well.

Keywords: Test of English Communication Skills (TECS), Graduate Employability, Graduate' Skills Requirements

ID 264

Keperluan Pemurnian Kandungan Kursus Pengendalian Makanan Kantin Sekolah di Malaysia

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Kes keracunan makanan di kantin dan dapur asrama sekolah meningkat setiap tahun dari tahun 2010 sehingga tahun 2014. Peningkatan statistik ini menunjukkan seolah-olah Kursus Pengendalian Makanan yang wajib dihadiri oleh pengusaha dan pengendali makanan sebelum mereka terlibat dalam perniagaan makanan adalah kurang berkesan. Oleh itu kajian ini dijalankan bagi mengenalpasti kesesuaian kandungan Kursus Pengendalian Makanan dibawah seliaan Bahagian Kualiti dan Keselamatan Makanan, Kementerian Kesihatan Malaysia. Kajian kualitatif ini telah melibatkan lapan orang peserta yang dipilih secara bertujuan. Data dikumpul menggunakan kaedah temubual dan analisa dokumen. Dapatan kajian menunjukkan kandungan kursus yang dijalankan mengandungi hanya empat tajuk pelajaran iaitu akta dan perundangan, kebersihan makanan, keselamatan makanan, dan faktor-faktor kritikal keracunan makanan. Kandungan pelajaran ini tidak menyeluruh dan tidak mendalam dalam memastikan peserta kursus pengendalian makanan memperoleh pengetahuan yang mencukupi. Dapatan kajian juga menunjukkan kandungan Kursus Pengendalian Makanan sediaada ini perlu dimurnikan dengan penambahan dua lagi tajuk pelajaran dalam kandungan kursus iaitu kualiti makanan dan pemantauan pengendalian makanan.

Katakunci: Kandungan Pelajaran, Pengendalian Makanan, Kantin Sekolah

ID: 265

Kecerdasan Emosi Dalam Kepimpinan

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Kecerdasan emosi semakin popular sebagai langkah untuk mengenal pasti keberkesanan pemimpin yang berpotensi. Kecerdasan emosi juga telah dijadikan sebagai elemen untuk melahirkan pemimpin yang berkemahiran dan berkesan. Walau bagaimanapun, penyelidikan empirikal yang menyokong keberkesanan kecerdasan emosi dalam bidang kepimpinan masih lagi terhad. Tujuan kertas ulasan ini adalah untuk meneroka hubungan antara kecerdasan emosi dan kepimpinan yang berkesan dengan mengkaji semula kajian-kajian yang pernah dibuat berhubung dengan topik ini. Hasil kajian jangka panjang dan berterusan oleh Salovey dan Mayer (1990); Mayer, Salovey & Caruso (1997); Mayer, Caruso, & Salovey (1999); dan Mayer, Salovey, Caruso dan Sitarenios (2001) telah dijadikan sebagai asas dalam penerokaan isu ini. Aplikasi kecerdasan emosi dalam mengurus, memantau dan bertindak balas kepada pekerja bawahan telah terbukti memberi kesan yang positif di tempat kerja. Beberapa pengamal dan penyelidik juga mempunyai pandangan yang sama di mana mereka menilai sesebuah organisasi sebagai suatu arena yang memerlukan interaksi yang lebih emosional berbanding rasional. Ini membuktikan bahawa terdapat keperluan yang mendesak agar diberi penekanan peranan emosi dalam organisasi dan kepimpinan.

Katakunci: Kepimpinan, Kecerdasan emosi, Organisasi

ID:266

Constraints Women Academician's Participation At Administrative Positions In Higher Education Of Developing Countries

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This paper attempts to set the stage for the exploration of women participation in administrative positions within developing countries by reviewing the studies on women in administrative positions within developing countries and suggesting guidelines for future studies in this area in developing countries. The paper is based on a systematic review of papers that have been published in journals. The review focuses on constraints to women's participation in higher education of developing countries (e.g. strong family responsibility, low levels of women faculty members, social values and gendered cultural factors). Further guidelines for future examination of this field of study are suggested (e.g. adopting a different theoretical view). The article is an initial attempt to gather knowledge about constraints of female administrators in higher education of developing countries. The subject has received less attention in studies on administration and gender. In addition, the article provides suggestions for future studies in order to understand women administrators' experiences in different educational and cultural settings.

Keywords: Administrative Position, Women Administrator, Developing Countries, Participation.

ID: 268

Using English Learning Websites to Assist Secondary School Students in Dealing with Indirect Corrective Feedback

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Corrective feedback (CF) is an inevitable teaching strategy carried out by educators, especially in an English Language classroom. Past studies have shown that corrective feedback is effective; however, indirect corrective feedback seems to have a variety of issues that has caused it to be unsuccessful. For example, looking at studies by Maleki and Eslami (2013) and Vickers (2001), it is found that one of the setbacks of indirect corrective feedback is students are still having difficulties in dealing with and learning from the indirect corrective feedback itself. Students could not rectify their errors as they do not have sufficient linguistic knowledge to facilitate them, especially when they have to deal with complex linguistic errors all by themselves (Van Beuningen, De Jong & Kuiken, 2012). Hence, this research was carried out to address this problem via the utilization of the English Language learning websites as the reference materials for the students to deal with complex linguistic errors. It was hoped that the students would be able to deal with indirect corrective feedback and successfully self-correct their errors. The qualitative research approach was employed, where participants recorded their usage of the English Language learning websites in a logbook. Five randomly selected participants were interviewed to obtain a more comprehensive understanding of their experience, feedback and comments. The results showed that there were positive reactions and comments which indicated that the use of the English Language learning websites has been successful in assisting the participants in dealing with indirect corrective feedback and in doing self-correction. However, there were also negative reactions to be taken into account. Thus, this presentation will highlight some insights from the research.

Keywords: English Language Learning Websites, Indirect Corrective Feedback, Self-Correction

ID: 271

Technical Education Teachers' Capacity Building: An Imperative For Effective Teaching And Learning At The Technical Colleges In Nigeria.

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The 21st century has witnessed more emphasis on 'generic', 'soft' or 'behavioural' skills than on 'technical' skills that once informed much of TVET teaching and learning approach. New developments have also emerged in learning theory including increased interest in 'situated', 'organisational' and 'productive' learning. Modern world concerning knowledge has also changed as a result of increased interest in the emergence of the 'knowledge economy' and the 'knowledge' worker. At present, there is greater need to develop in students, the knowledge, reasoning capacity and problem solving skills required for a rapidly changing technological world which is not possible with the traditional instructional methods. However, the present reality of the 21st Century is such that TVET teachers face numerous and compound challenges that they almost at crossroads with several changes that are quickly taking place both inside and outside their own educational institutions. One of these changes has been the introduction of teaching innovations (instructional technology) in schools, and just like any other reform that takes place in education; teachers play an important role in its development and in deed implementation. Specifically, practising TVET teachers are faced with a challenge to learn teaching with technology so that they can function in technology-based environments that are increasingly being implemented in our schools today. This condition therefore, has practically placed teachers' capacity building as top priority that has the potential to guarantee effective teaching and learning experience in our technical colleges. It is against this background that this paper highlights the changing role of TVET teachers; pedagogical innovations in TVET teaching and learning; training of TVET teachers, and capacity building methods for TVET teachers.

Keywords: TVET Teachers, Capacity Building And Teaching Innovations.

ID: 272

Pembelajaran Berasaskan Projek dalam Membangunkan Kompetensi Pelajar di Institusi Pengajian Tinggi

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Pembelajaran merupakan proses yang perlu dilaksanakan dengan berkesan memandangkan ianya merupakan salah satu alat utama dalam membangunkan kompetensi pelajar. Bagi mencapai matlamat tersebut, Pembelajaran Berasaskan Projek menjadi kaedah terbaik di mana setiap pelajar berpeluang mengikuti pembelajaran secara meneroka, memproses dan mengaplikasikan ilmu pengetahuan dan kemahiran yang diperolehi secara sendiri dengan kawalan pensyarah sebagai fasilitator. Artikel ini membincangkan tentang peranan Pembelajaran Berasaskan Projek di Institusi Pengajian Tinggi ke arah membangunkan kompetensi pelajar yang dapat memenuhi pasaran pekerjaan. Pelajar yang mempunyai kompetensi tinggi setelah melalui proses Pembelajaran Berasaskan Projek akan mempunyai pengetahuan, kemahiran dan sikap selari dengan keperluan pasaran pekerjaan. Artikel ini turut membincangkan proses pembelajaran sebagai satu pendidikan, teori pembelajaran yang menjadi teras kepada Pembelajaran Berasaskan Projek, definisi Pembelajaran Berasaskan Projek, perlaksanaan Pembelajaran Berasaskan Projek, dan cabaran pensyarah sebagai fasilitator.

Kata Kunci : Pembelajaran Berasaskan Projek, Kompetensi Pelajar, Pensyarah Sebagai Fasilitator

ID: 275

Keberkesanan Pembelajaran Kaedah Konvensional bagi Pengetahuan Kesihatan Seksual dan Reproduksi dalam Kalangan Remaja di Kuala Lumpur

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Kajian ini merupakan sebahagian projek komuniti daripada Malaysian Care for Adolescent Project (MyCAP), Jabatan Perubatan Kemasyarakatan dan Pencegahan, Fakulti Perubatan, Universiti Malaya Kuala Lumpur dengan kerjasama UMCares. Projek ini bertujuan melaksanakan satu program berkaitan kesihatan seksual dan reproduktif kepada awal remaja. Kajian ini juga merupakan kajian deskriptif bagi melihat keberkesanan menggunakan kaedah konvensional bagi menyampaikan informasi kesihatan seksual dan reproduktif. Kajian ini melibatkan para remaja yang berasal daripada keluarga golongan pertengahan dan ke bawah serta dibesarkan dalam keadaan yang kurang mendapat keistimewaan. Seramai 108 orang responden berumur 12 tahun dari kawasan Lembah Pantai, Kuala Lumpur yang telah diberikan kebenaran oleh ibu bapa mereka untuk mengikuti program kesihatan seksual dan reproduktif remaja (KSRR). Tahap pengetahuan remaja berkenaan KSRR diuji sebelum pengenalan kepada modul KSRR (*Pre-Test*). Seterusnya, peserta diajar mengenai pelbagai topik KSRR seperti organ reproduktif dan akil baligh dengan menggunakan kaedah ceramah dan aktiviti berkumpulan. Bagi melengkapkan penilaian, kesemua peserta sekali lagi menjawab soalan yang sama (*Post-Test*). Dapatan kajian menunjukkan hampir kesemua peserta mempunyai tahap sederhana dan tahap pengetahuan tinggi dalam kesihatan seksual dan reproduktif. Selain itu, terdapat peningkatan sebanyak 4.3 dalam min skor pengetahuan setelah melalui pembelajaran sekaedah konvensional dan terdapat perbezaan yang signifikan ($p < .05$) antara kedua-dua skor sebelum dan selepas program. Dapatan daripada kajian ini menunjukkan bahawa pembelajaran menggunakan kaedah ini meningkatkan pengetahuan remaja terhadap kesihatan seksual dan reproduktif. Walaubagaimanapun, penilaian selanjutnya diperlukan untuk menentukan mekanisme dan impak yang spesifik, khususnya dalam komponen-komponen program.

Kata Kunci: Kesihatan Seksual, Reproduksi, Remaja, Akil Baligh, Konvensional

ID: 276

Concept Paper of Co-Teaching Approach in an Inclusive Classroom: Challenges, Readiness, and the Role of Special Education Teacher on Co-Teaching Components

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This concept paper is about the determination of the relationship between aspect of readiness, and the role of special education teacher (SET) in implementing common approaches in inclusive classrooms. The components of co-teaching will be tested in this study. Experiences as a moderator will be used to know the effect of the co-teaching component and the results will be carried out for the next study. This study will be using a common sampling method that involved more than 300 respondent's representatives of the population of SET in the state of Johore. SEM-PLS will be used in this study and all hypotheses will be tested by the second - order method in SEM.

Keywords: Challenges, Readiness, Inclusive, Special Education, Co-teaching Components

ID: 278

Kerangka Pemikiran Saintifik Berpaksikan Domain Afektif Bagi Membangunkan Pelajar Beradab Mithali

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Pembentukan Kurikulum Standard Sekolah merupakan satu transformasi kurikulum dan usaha penyusunan semula serta penambahbaikan dalam sistem pendidikan negara. Ia bertujuan untuk memastikan setiap pelajar dibekalkan dengan pengetahuan, kemahiran dan nilai yang relevan dengan keperluan semasa selari dengan hasrat negara untuk melahirkan masyarakat saintifik. Pembangunan masyarakat berfikir saintifik mestilah mampu menguasai konsep sains dengan tepat, menguasai aktiviti penyiasatan dengan berkesan dan mempunyai sikap saintifik serta sarat dengan nilai-nilai murni. Namun begitu, ciri struktur pemikiran saintifik sedia ada pelajar lebih berfokus dan tertumpu hanya kepada dua domain pembelajaran sahaja. Menyedari hakikat ini, kajian dijalankan dengan tujuan untuk mengkaji pembangunan pemikiran saintifik dalam proses pengajaran dan pembelajaran berdasarkan tiga domain utama pembelajaran iaitu domain kognitif, psikomotor dan afektif. Modul Pengajaran dan Pembelajaran Kimia dibangunkan dan digunakan sebagai instrumen kajian bagi mengkaji skema pemikiran saintifik pelajar. Modul ini dibangunkan berdasarkan 5 E's Science Learning Model dan memberi fokus kepada ketiga-tiga domain pembelajaran, domain kognitif, psikomotor dan afektif. Penekanan terhadap tiga aras pengkonsepan; mikroskopik, makroskopik dan persimbolan, kemahiran proses sains serta sikap saintifik dan nilai-nilai murni amat dititikberatkan dalam pembangunan dan pelaksanaan modul pengajaran ini.

Kata Kunci: Tiga Aras Pengkonsepan, Kemahiran Proses Sains, Sikap Saintifik, Nilai-Nilai Murni, 5 E's Science Learning Cycle.

ID : 279

Mobile Learning Framework for Automotive Programmed in Malaysian Polytechnics

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Mobile Learning (M-Learning) refers to any kind of learning which takes place within and beyond the traditional learning environment via wireless mobile devices. These devices are able to move with the learner to allow learning anytime, anywhere. Over the past decade M-Learning has become gradually popular in higher education by providing mobile access to learning resources and collaborative learning. Despite the familiarity with M-Learning as a new paradigm in vocational training, there has been a shortage of research concerning how to deploy this technology in a successful way. The integration of M-Learning in a higher education environment like polytechnics, needs to involve some aspects in terms of the readiness of users and institutions, users acceptance and engagement, and the sustainability of the system. The aims of this research are to study students' readiness for M-Learning, investigate the factors that affect students' acceptance and analyse M-Learning literature in order to propose and evaluate a framework which can be used to foster the sustainable M-Learning framework within teaching and learning strategies, specific for automotive programmed in Malaysian Polytechnics. This research was conducted in Malaysian Polytechnics, with all automotive students and automotive lecturers was selected as participants. The outcome of this research lead to a conceptual framework that gives a wide overview of all elements that need to be addressed in the M-Learning environment. Furthermore, the framework provides polytechnics educators with a planned approach to incorporate M-Learning in higher education curriculums with the aim of improving teaching and learning in automotive programmed.

Keywords: Mobile Learning; Technical and Vocational Education; Polytechnics

ID280

The Concept and Process of Developing "Adab" Or Moral As Inspired By Malaysian National Education Philosophy

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Teachers are the main character in educating our young generation to become decent, balance and harmonies as mention in the Malaysian National Education Philosophy (NEP). In other words, Malaysian education system aims to produce young generation who are emotionally stable and be able to develop good and harmony relationship with others. However, Malaysian society is overwhelmed with social problem among teens such as delinquents, sex abuse among them and these problem keeps increase year by year. There will be many reasons that contribute to this problem. However, this study only focuses on educator as the main character to educate and develop "adab" or moral among Malaysian young generation. Therefore, the aim for this article is to share our finding on the level of educators' knowledge and self-understanding about the concept and process of moral development as inspired by NEP. Action research has been used as research methodology. The researcher has develops pre-test and post-test instrument (same instrument) to measure the educator knowledge and self- understanding about the concept and the process and a module .The module has been used as an action taken by the researcher to share the knowledge about the concept and the process of moral development as inspired by NEP. The instrument and the module have been evaluated and approve by the expert in the field for the content validity. Findings shows that there is an improvement with a significant difference between pre-test (mean 4.10) and post-test (mean 4.82). In conclusion, there is a need to do more research to help and improve Malaysian educators' knowledge and self-understanding about the concept and the process of moral development as inspired by NEP. Future research might be focus on the implementation of moral development process as inspired by NEP throughout education process in classroom.

Keywords: Philosophy, Adab, Moral, Educators