ABSTRACTS OF PAPERS

ICE 01
TEACHING SKILLS DEVELOPMENT MODEL

Cicih Kurniasih, S.S
School Teacher Indonesian (SGI)
Bongor, Indonesia

ABSTRACT

Education is a process of transformation of life, transform from inability condition become skilled and develop the knowledge and character formation. The success of the learning process affects the teaching skills of teachers strike. Skills such as classroom management, learning strategies, interaction and communication instruction to how to conduct an evaluation through authentic assessment. This research aims to determine the impact of an increase in teachers’ teaching skills through the application of coaching observations and reflective teaching. Implementation of observation and reflection activities carried out during three cycles with the number of objects of research as much as thirty teachers for two months, accompanied by intensive teaching companion. Sampling with purposive sampling, ie the entire population is taken into the sample. The instrument used is the observation rubric of teaching and the data microteaching. As an indication of the increase that occurred on average 20% to 30% on various aspects of teaching skills.

Keyword: teacher development, teaching skills, observational learning
This paper investigates the position of ‘creativity’ within graphic design education in general, and within the Omani educational context in specific. Creativity is defined within this research and in relation to graphic design education as ‘problem solving’, which is explained also as a cultural activity, or a cultural production. Graphic designers can involve themselves effectively in solving communication, social, and cultural problems that are classified as ‘wicked problems’, which usually require creative solutions. It is argued that Omani graphic designers should be creative problem solvers and able to find effective solutions for these problems. Yet this is not the case in Oman, at least from perspective of this paper. The research problem is that the Omani design education system lacks a framework that minimizes creativity as an important concept in education. Such a lack creates twofold problems: 1) underestimating the importance of creativity in Omani design education; and 2) a shortage of pedagogical structured programmes that can enhance students’ creativity. It is argued that this problem is a result of the neglected situation of creativity in rabic traditional education in general. Traditional education usually does not support creative thinking in design students, which consequently minimizes their roles in social and cultural change. Based on the above, this research suggests that, in order to enhance and promote creative potential of Omani graphic design students, it is important to develop a pedagogical model for this purpose. Such, model can offer a systematic approach for lecturers, to guide them into the best practice to enhance the creative potential of their students. Yet, it is more important firstly to re-establish the position of creativity within Omani design education and educators should value it as integrated part of graphic design education. To achieve this aim, the relevant literature has been reviewed, especially that study techniques and strategies that employed internationally to improve the creative potential of graphic design students. Qualitative interpretative methodology was used for this purpose. Survey approach was used, implementing two methods: questionnaires and interviews. The online questionnaire was conducted with 33 international participants. It investigated how creativity is defined within graphic design contexts; whether creativity can be taught or enhanced; if yes, how, and by which techniques and strategies?. The same set of questions was asked in face-to-face interviews conducted with 39 design lecturers. The interviewees were local lecturers who teach graphic design courses at some Omani institutions. Ll of the collected data were analysed by a thematic analysis method. The outcome of this research are; 1) defining the concept of ‘creativity’, 2) this research has collected ideas, insights and trends about creativity in graphic design education and how it can be developed, 3) this research has advanced knowledge of the relationships among graphic design, creativity, and education. It is believed that the
The proposed model is the first step towards improving the position of creativity in Omani design educational system. The model would help Omani graphic design students to develop their creative problem-solving abilities, which can allow them to effectively find solutions for several social and cultural ‘wicked problems’ faced in Oman, such as the increased rate of car accidents nationally. The model suggested containing some creative-thinking techniques, and some pedagogical strategies that are already used internationally in education to improve creativity. The model would be suggested to the Omani Ministry of Higher Education that the model should be part of the Omani undergraduate graphic design curriculum.

Keywords: [Creativity, creativity enhancement, graphic design education, design lecturers, teaching creativity, pedagogical model, problem solving].
Effective teachers are the cornerstone of any education programme, and the vital element in student achievement. In the 21st century knowledge society, it is of paramount importance that teacher performance be optimised, and teachers be empowered to bring out the best capabilities and attitudes in them. One of the key factors in empowering teachers in schools is the school leadership, i.e. the behaviour, actions and attitudes of those in positions of leadership, such as the Principal, Vice Principal, Dean of Studies, Section Heads or Heads of Departments. This research paper presents the empowering and disempowering aspects of school leadership that are perceived by teachers. This is part of the findings of a qualitative study on teacher empowerment and disempowerment, using ethnographic methods for data collection, i.e. participant observation, interviews and document analysis. The study was carried out at a private secondary school in Brunei Darussalam over a period of six months in 2013. The purpose of the study was to explore teachers’ perceptions on how empowering or disempowering the school leadership was. An analysis of the field data revealed that school leadership is empowering for teachers when it creates space for teacher autonomy in the classroom, gives moral and professional support, displays genuine trust, expresses genuine appreciation, and places demands on teachers that extend their possibilities. School leadership becomes disempowering through discouraging attitudes and behaviour, inability or unwillingness to support teachers, conflicts in value systems, unworthy personal attitudes and behaviours, perceived lack of capability, lack of communication, and reluctance for power sharing. Within these broad themes several particular sub-themes were found, all of which point to the nature of empowering and disempowering school leadership. Besides contributing to the knowledge base on school leadership and teacher development, these results may be useful for the educational policy makers of the country, to understand the nature of school leadership that is conducive for optimal teacher performance. For the school leaders themselves, these findings may offer guidelines for adopting more empowering behaviours and attitudes.
ICE 04

TEACHERS’ EMOTIONAL INTELLIGENCE ACROSS GENDER

Hjh. Norila Binti Md. Salle¹ & Hj. Ikhsan Bin Othman²
¹Faculty of Education and Human Development
Sultan Idris Education University, 35900 Tanjong Malim, Perak, Malaysia.
norila@fppm.upsi.edu.my
²Faculty of Education And Human Development
Sultan Idris Education University, 35900 Tanjong Malim, Perak, Malaysia.
ikhsan@fppm.upsi.edu.my

ABSTRACT

This paper discusses the findings of a study which was conducted to identify the emotional intelligence among school teachers in Malaysia and the difference across gender. The study adopted a survey research design in which questionnaire was used to collect data from the selected samples. The questionnaires were mailed to the selected schools. A total of 805 primary and secondary school teachers who are serving in schools under the administration of Malaysia Ministry of Education were involved as samples. Reaction to Teaching Situation was used as an instrument to measure teachers’ emotional intelligence. Reaction to Teaching Situations comprises of four branches of emotional intelligence which are identifying emotions, using emotions, understanding emotions, and managing emotions. The result showed that generally teachers possess moderate level of overall emotional intelligence and emotional intelligence for each construct which are identifying emotions; using emotions; understanding emotions and managing emotions. The result showed that there is no significant difference in the levels overall emotional intelligence among male and female teachers. The result also revealed that there is no significant difference in the levels of the emotional intelligence constructs among male and female teachers.

Keywords: Emotional intelligence, teachers, gender.
THE IMPLEMENTATION OF PORTFOLIO ASSESSMENT IN PROBLEM-BASED LEARNING TO IMPROVE STUDENTS’ INITIAL MATHEMATICAL PROBLEM-SOLVING ABILITY: CASE STUDY

Tati Heriati, Perliawan Franajaya
Sekolah Menengah Atas Negeri 2 Krakatau Steel, Cilegon, Banten Province.

ABSTRACT

Authentic assessment is an alternative assessment that is rarely used by the teacher to assess students’ learning outcome. There are so many types of authentic assessment, such as performance assessment, project assessment, portfolio assessment, and written assessment. This study focuses on portfolio assessment. Portfolio assessment is an assessment of the collection of artifacts that shows progress and is appreciated as the work of the real world. Portfolio assessment can be used in various learning models. One of them is problem-based learning. Problem-based learning is a learning approach that uses real-world problem as a learning context (Ratnaningsih, 2006:5). It also requires students’ critical thinking and ability in solving the problem in order to be able to build essential knowledge and concept of the materials learned. This study to discover and compare the use of portfolio assessment in problem-based learning, problem-based learning, and conventional learning to the improvement of students’ mathematical problem-solving ability. Besides, this study also aims to investigate students’ attitude toward problem-based learning. This study employed an embedded mixed method design. There were three data collection techniques used in this study. They were problem solving test, interview, and students’ questionnaire. The population of this study was ten-grade students in Sekolah Menengah Atas Negeri (Government Senior High School) 2 Krakatau Steel, Cilegon, Banten Province. Meanwhile, the sample of this study was ten-grade students from Ilmu Pengetahuan Alam (Natural Science) 1, 2, and 3. In analyzing the data, scoring guideline from problem-solving test was used. Besides, students’ questionnaire was also analyzed. In conclusion this study revealed two findings. Firstly, there was the difference between the students who used portfolio assessment in problem-based learning, problems-based learning, and conventional learning. The difference was particularly took place on their mathematical problem-solving ability. Secondly, students expressed positive attitude on the implementation of problem-based learning in mathematic subject.

Key words: Authentic Assessment, Portfolio Assessment, Problem-Based Learning, Students’ Mathematical Problem-Solving Ability
DEVELOPMENT AND ASSESSMENT OF CONTENT VALIDITY OF PLAY-BASED MODULE FOR TEACHING AND LEARNING PRESCHOOLERS’ LANGUAGE SKILLS

Aliza Ali & Zamri Mahamod
National University of Malaysia
alizatra@yahoo.com
d-zam@ukm.edu.my

ABSTRACT

The development stage is part of the research process in the study of instructional design. This article reports the development process of play-based module for teaching and learning preschooler’s language skills. The target users of the module are preschool teachers. The development process of the modules involves three steps, namely (1) Preparation of the materials, (2) Experts review and (3) The content validity of the module. Preparation of the materials involves content development of the module, done based on a needs analysis, theories, literature review and curriculum review. Expert review was conducted by eight subject matter experts of different fields. All experts were given a module to be reviewed and to assess the accuracy of the content of the module. The results of evaluation resulted in further course revisions. Several recommendations were identified and an amendment was done accordingly based on the suggestions given by the experts. The amended module was then evaluated for its content validity. The process of content validity evaluation involved a total of 20 evaluators, consists of eight subject matter experts and 12 users. The analysis received from those experts and users showed that they have agreed a module has achieved high level of content validity. The findings indicate that the module has high content of validity and can be used by the users. The module will be tested its usability in the real setting for the next phase of module development process.

Key words: development research, content validity, preschool teacher, preschool children, play-based approach, language skills.
ICE 07

STAKEHOLDERS’ PERSPECTIVES OF A HEALTHY AND SAFE SCHOOL ENVIRONMENT

David Cababaro Bueno

Dean, Graduate School and Director, Research and Publications
Columban College, Inc. 1 Mt. Apo St., New Asinan, Olongapo City
Philippines 2200. Email Address: docdave30@yahoo.com

ABSTRACT

School officials are faced with the need to present clear information and ideas about elements of a healthy and safe school environment, which are not in themselves easy to understand. The study focused on the analysis of a healthy and safe school environments based on the perspectives of internal stakeholders in the District of San Marcelino, Zambales. Specifically, it sought answers to the following questions: 1. How may the stakeholders assess their environmental practices based on the following indicators of a healthy and safe learning environment: energy use, water consumption, solid waste, indoor air quality, laboratory waste, building renovation, pest management, ground keeping, food service, and mold growth?; 2. Are there variations in the perspectives of the stakeholders on a healthy and safe learning environment?; and 3. What implications can be drawn from the findings to the environmental management strategies of the schools? The researcher used the descriptive method of research utilizing the survey-questionnaires, observations and informal interview. The school administrators, teachers and the janitors were the stakeholders involved in this study. The data gathered were treated statistically using Mean, and ANOVA. The schools were performing very well based on the indicators identified in the environmental practices which included energy use, water consumption, solid waste, indoor air quality, laboratory waste, building renovation, pest management, grounds keeping, food service, and mold growth. There were no significant variations on the perspectives of stakeholders’ perspectives of a healthy and safe learning environment. Environmental management strategies were identified by creating top management support by adopting environmental policy statement for these schools; establishing a team of employees and pupils to identify and brainstorm environmental improvement ideas; identifying operations where large quantities of water and energy were used and those that generate high volume of waste, and assign priority to be taken in those areas; seeking employee and pupils’ suggestions, and find other ways to involve them in the environmental program; and building permanence into the green school program by making these efforts long lasting by incorporating environmental improvement into the core operations and curriculum. A parallel study should be conducted in other schools to fully implement and promote safer and healthier learning environment for pupils.

Keywords: School Environment, Health and Safety Learning Environment, Stakeholders, Analysis of Variance (ANOVA)
GAYA KEPIMPINAN PENGETUA SEKOLAH BERPRESTASI TINGGI

Mohd Norsham Hj. Abdul Ghani
Mohd Mazhan B. Tamyis

ABSTRAK


Kata Kunci : Sekolah Berprestasi Tinggi, Kepimpinan Pengetua, Gaya Fasilitator Perubahan.
ICE 09

THE IMPACT OF PRINCIPAL LEADERSHIP ON STUDENTS’ ACHIEVEMENT

Haji Loji Roji Bin Haji Saibi
Senior Fellow, Ministry Of Education, Malaysia
Institute Aminuddin Baki, Genting Highland Campus)

ABSTRACT

This case study was conducted to ascertain the impact of Principal leadership on the students’ achievement in a full-boarding school in Kota Kinabalu, Sabah. The study was done following outstanding results achieved by the school in the public examination. Based on a wide range of literature reviews, there are strong indications showing a correlation between effective Principal Leadership and students’ achievement do exists. Currently, Malaysia has just launched the education transformation plan. The aim of the plan is to upgrade the education system in order to face future challenges. One of the major shifts of the plan is to provide effective school leadership in every school throughout the country. Among the steps taken by the Ministry of Education was to appoint Senior Fellows. This group of former Principals is to assist the Ministry to achieve the shifts in the education system. Based on their experiences and outstanding performances in their former schools, they are to render their services for the benefit of the schools selected under the Fellowship programme. One of those schools is the Science Secondary School, Kota Kinabalu, Sabah. The school was chosen as it had achieved incredible results in Sijil Pelajaran Malaysia (SPM) in 2013. The school was already in the category of high performing schools but in 2013, the school improved dramatically. Due to the phenomenal results achieved, it is important that a case study was done. Based on their combined experience, the Senior Fellows believe that Principals were critical when came to improving school performance. The focus of the case study was therefore on the leadership role of the Principal of that school. The outcome of the case study clearly shows that the leadership role of the Principal matters. His professional attributes and ability to harness the teachers’ capacity to deliver quality teaching contributed heavily in effective management of the school. In sum, there is indeed a significant correlation between the Principal Leadership role and the students’ achievement.
The study focused on the school leader’s self-reflection to initiate changes and transformation required to embark on the journey of the Model School since 2012 in Brunei Darussalam. Model Schools are aimed to act as catalysts in accelerating the effectiveness and efficient achievement of SPN21. The five key strategic areas to be focused on to reach the key performance indicators for 2017 are Leadership, Innovation, Teaching, Learning and Assessment, Capacity Building and Learning Environment. Therefore, it is very crucial for the school leader to enhance her capacity to initiate and lead the changes which are taking place to ensure that the Model School will deliver as expected by the Ministry of Education. To support the school leader’s self-reflection journey, a survey based on Marzano’s 21 leadership responsibilities with correlations to Student Academic Achievement was adapted and responded by the teachers in the Model School. The results extracted from the SPSS highlights the order of the leadership responsibilities according to its importance and areas for the school leader to polish on to successfully lead the school. Furthermore, the school leader will identify the challenges encountered while delivering the most frequent responsibilities and reflected on ways to overcome it.

Kata Kunci: Pengaruh Media, Aggresif dan Program.
FAKTOR-FAKTOR YANG MEMPENGARUHI KEMEROSOTAN DISIPLIN PELAJAR DARI PERSEPSI GURU SEKOLAH MENENGAH

Rohanita Yaakub 1, Azizi Yahaya 1, Norwidayawati Metussin1, Norsiah Abdullah 1, Samsul Muawan Shodiq1
1Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei darussalam

ABSTRAK


Kata kunci: kemerosotan, disiplin pelajar, persepsi guru-guru
ICE 13

PEMBINAAN INSTRUMEN JATI DIRI KEBANGSAAN DALAM KALANGAN BELIA NEGARA BRUNEI DARUSSALAM

Aliff Nawi, Gamal Abd Nasir Zakaria, Salwa Mahalle, Samsul Muawan Shodiq, Norkhairiah Hashim, Mohammad Hilmy Baihaqy Yussof, Rojja Pebrian, Rahmat Hidayat, Rose De Norsiah Abdullah, Azrin Timbang, Norwidayawati Metusin, Artini Timbang, Faridah Abang

1 Institut Pendidikan Sultan Hassanal Bolkiah &
2 Pusat Pengajian Islam Sultan Omar ‘Ali Saifuddien,
Universiti Brunei Darussalam

ABSTRAK


Kata kunci : Instrumen, jati diri, belia, Brunei
This report is to present Sekolah Rendah Panaga, Seria and its community outreach program that has been conducted since 2012. It consists of the establishment of the Panaga Young Leaders (PYL) in 2011 and the School Outreach Program by PYL known as the 'Panaga Young Caring Community'. This is the niche of the school as it is implemented as one of the activities that supports the school’s vision. There are several activities conducted by this community outreach program that involves the Panaga Young Leaders. It is by enhancing their leadership skills by exposing them to carry out community services such as raising funds and charity projects. This report will also highlight the collaboration of Sekolah Rendah Panaga, Seria with the Ministry of Education, Non-government organizations, government and international schools and other caring individuals to support the 'Panaga Young Caring Community' program and the schools that were identified to be a part of this project.
ABSTRACT

Injustice for people with disabilities has still been a familiar phenomenon in many countries, one of them is Indonesia. According to WHO, people with disabilities in developing countries reach 15% of the total population. Nearly 785 million women and men with disabilities are at working age, but the majority of them do not work. Whereas, the International Labour Organization (ILO) states that excluding people with disabilities from the labor force resulting in loss of GDP by 3-7% . Data from Indonesian Ministry of Social Affairs in 2010, the number of people with disabilities were 11,580,117, but they had very limited job opportunity. The main cause of the limited job opportunity for people with disabilities is the assumption that people with disabilities cannot compete with other normal people. Based on this problem, the authors initiated a solution to overcome this problem by implementing entrepreneurship education program through an outing class method to improve the soft skills of students with disabilities. Some of the main aspects developed in this program include: community survival skill, personal care skill, interpersonal competence skill and working ability skill. The method used in this research is descriptive by carrying out a case study on one of the extraordinary schools in Surakarta, namely SLB-CG Yayasan Bina Sejahtera. The purposes of this paper are to explain the implementation strategy of entrepreneurship education program by using outing class method and to explain the impact of the program. This program provides benefits for students, schools, and general public. Students can learn entrepreneurship through useful training to improve their potential, schools are helped through the effectiveness of skills classes, and general public become aware of the potential of students with disabilities.

Keywords: Entrepreneurship Education, Outing Class Method, Soft skill, Student with Disability.
A STUDY ON THE USE OF PROJECT-BASED LEARNING FOR THE DEVELOPMENT OF TOURISM STUDENT’S EMPLOYABILITY SKILLS

Dk. Siti Norizah Bte Pg. Haji Hallid\(^1\) and Dr. Adeline Goh Yuen Sze\(^2\)
\(^1\)Maktab Teknik Sultan Saiful Rijal, Bandar Seri Begawan, Brunei Darussalam. Email: dknorizah.hallid@ssrtc.moe.edu.bn
\(^2\)University of Brunei Darussalam, Bandar Seri Begawan, Brunei Darussalam. Email: adeline.goh@ubd.edu.bn

ABSTRACT

In Brunei, the Tourism industry is relatively young compared to other industries. Over recent years, the tourism industry has emerged as an increasingly important sector in the development of the country. In Brunei, Tourism industry looks to vocational institute for work ready graduates with relevant professional skills. In order to respond to the needs of this industry, there is a need to integrate learning approaches such as project-based learning in preparing and equipping students with the necessary employability skills. The purpose of this study was to explore the use of Project-Based Learning (PBL) in the development of Tourism students’ employability skills. Using action research, this study focuses on the learning experiences of a group of diploma students using PBL which involve students creating, designing and executing an operational tour package. Data was collected using participant observation and semi-structured interviews. Findings of this study shows that PBL provided opportunities for individuals to develop their employability skills such as time-management, application of knowledge through the use of technology and sharpened awareness of situations to solve real-world problems at varied stages of the project work. As part of the conclusion, recommendations were provided to enhance Tourism curriculum based on project-based learning experiences to support the development of relevant professional skills such as educator’s involvement.

Keywords: project-based learning, employability skills, vocational, tourism students, development, qualitative, interview, action research
ABSTRACT

This paper reports on the outcome of a pilot study to investigate group discussion using a design called Roundtable. Group discussion is a pedagogical technique with potential to enhance students’ learning. The research questions which follow are pursued through analysis of transcripts of discussions and follow up interviews:

- How and what do students learn through participation in discussion of economic issues with their peers?
- What are the necessary conditions for learning to occur under this arrangement?

Using a methodological approach derived from phenomenography, the analysis of the transcripts seeks to identify threads of learning occurring when dimensions of variation opened through discussion provide an opportunity for students to experience critical aspects of an object of learning. For example, in a discussion of the advantages and disadvantages of the subsidization of fuel prices, the object emerging may relate to the allocative effects of subsidization. However, it is also possible that a discussion simply takes many turns as different contributions are made without follow through of anything to a point where learning is possible. This paper will use data extracts to illustrate the potential of this approach to the analysis of discussion and will invite critical discussion of the methodology.

Key words: learning, discussion, roundtable, phenomenography, economics
TOWARDS THE DEVELOPMENT OF PRE-UNIVERSITY STUDENTS’ MATHEMATICAL MODELLING COMPETENCIES FRAMEWORK

Maureen Siew Fang Chong & Masitah Shahrill
SHBIE, Universiti Brunei Darussalam, Brunei Darussalam

ABSTRACT

This paper reports an exploratory study results of 167 pre-university students’ competencies in solving mathematical modelling tasks. We investigated the use of MODEL (Meanings, Organise, Develop, Execute, Link) framework in classifying students’ solutions according to their modelling performance in six stages. The MODEL framework was designed to assess independent modelling routes of students’ competencies in the transfer of their abstract knowledge into real-world settings. The aim of this study is to explore pre-university students’ mathematical modelling competencies, and subsequently use the results to prescribe approaches and strategies in the integration of mathematical modelling as problem solving approach, in facilitating the learning of mathematics course at pre-university level. The instrument used to collect the data was a pen and paper test consisting of four real-world setting questions. The analysis of the test papers showed that only 6 students (3.59%) had achieved the learning outcome of demonstrating their modelling competency in reflecting back into the problem, which is the Execute stage. This may be attributed to the fact that students are expected not only to have abstract knowledge of mathematics but a sound contextual knowledge of a real-life setting in solving these mathematical modelling tasks. This also indicated deficiency in the interpreting and validating phases of the modelling process. In addition, majority of these students’ attempted solutions seemed to be limited to known mathematical techniques and application of formulae, without demonstrating another competency such as meanings (understanding) in the framework. Further analysis on correlation of mathematical modelling competency stage and students’ confidence levels showed that, students are most confident in attempting questions only with familiar settings and with specific values or variables readily given in the real-world setting questions.
ICE 19

JOURNAL WRITING AS A TOOL FOR REFLECTION BY PRE-UNIVERSITY ECONOMICS TEACHER AND STUDENTS

Queenie Chin Yee Chong*, Pte Tutong
Chee Sheng Onn Amrsc*, Pte Tutong
Linda Galbraith, Cfbt, Smja
queenie.chong@ptet.moe.edu.bn
cheeshengonn@ptet.moe.edu.bn or cheeshengonn@gmail.com

ABSTRACT

This paper reports the educational values of reflecting upon learning and teaching experience of thirteen pre-university Economics students at a co-educational government school in Brunei Darussalam. Students wrote weekly journals summarising what they have learnt for the previous week, what they like about the lessons, what they found confusing as well as their suggested areas of improvements in line with learners taking greater responsibility for their own learning. Our longitudinal study uses mixed methods – we quantify how much students write over time and analyse qualitatively whether writing improve in terms of their expression and language usage. Also investigated is the impact of journal writing on the affective domain of learning by analysing how much students revealed themselves in their journals and subsequent lesson designs by the teacher to accommodate students’ learning needs accordingly.

Keywords: journal writing, reflective learning, affective domain, learning needs, economics education
ABSTRACT

Chemical equilibrium is one of the most difficult concepts in chemistry. Despite considerable research in this area problems with conceptual understanding among students across educational levels and cultures still persist. In an attempt to resolve this problem, firstly, a phenomenographic study was conducted with pre-university chemistry students to identify the critical aspects of understanding this phenomenon - what it is necessary to learn - from the experience of the students. Semi-structured interviews were conducted and data was analysed using the phenomenographic approach. Secondly, the critical aspects of the object of learning chemical equilibrium thus discovered were incorporated in a sequence of instruction using variation theory as the design tool. This study sought to identify the patterns of variation experienced against a background of invariance in other aspects that would bring about a powerful understanding of the object of learning. Pre- and post-tests were used to measure the impact of progressive cycles of design. Finally, a teacher group would be formed to share the process of design and to explore its effect. Involvement with learning study has been found to provide a powerful catalyst for improving teaching by bringing together educational research results that provided useful knowledge for teachers. This paper reports on the critical aspects and dimensions of variation of the object of learning emerging from the study and on the impact of the designs developed in cycles of learning study on students’ learning outcomes and on teachers’ changing understanding of teaching chemical equilibrium through their engagement with the study.

Key words: Chemical equilibrium, Pre-university students, Phenomenography, Variation theory, Learning study.
GAYA KEPIMPINAN GURU BESAR DAN HUBUNGANNYA DENGAN FAKTOR-FAKTOR KEPIMPINAN DI SEKOLAH PENERIMA ANUGERAH SEKOLAH CEMERLANG DI NEGARA BRUNEI DARUSSALAM

Pg Razmahayati Pg Hj Mahmud¹, Azizi Yahaya¹, Gooh Mo Lee², Dk Norhasinhwati Bte Pg Hj Idris¹, Hajah Surayati Binti Hj Ahmad Shah¹, Ku Suhaila Ku Ali @ Ku Johari²
¹Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam
²Fakulti Pendidikan, Universiti Kebangsaan Malaysia

ABSTRAK

Kajian ini bertujuan untuk mengenal pasti persepsi guru terhadap gaya kepimpinan guru besar dan hubungannya dengan pengamalan faktor kepimpinan guru besar di sekolah penerima anugerah sekolah cemerlang di Negara Brunei Darussalam. Seramai 32 orang guru dari dua buah sekolah ugama menerima penganugerah ASC telah dipilih secara rawak untuk melibatkan diri dalam kajian ini. Instrumen kajian Leader Behavior Description Questionnaire (LBDQ) digunakan untuk mengenalpasti gaya kepimpinan guru besar dari aspek mengarah, bertimbang rasa, penyertaan dan berorientasikan kejayaan. Sementara pengamalan faktor kepimpinan guru besar dari aspek budaya ilmu, permuafakatan, motivasi dan dorongan, kepimpinan kurikulum dan pengupayaan kepimpinan di sekolah diukur dengan menggunakan soal selidik dalam instrumen SKPM. Kajian rintis telah dilakukan oleh 20 orang guru di sebuah sekolah Ugama, Alpha Cronbach digunakan untuk menguji ketekalan sumpahan dalam soal selidik dan nilainya ialah 0.95. Dalam kajian ini analysis deskriptif seperti min, frekuensi dan peratus digunakan untuk mengenal pasti faktor demografi jantina, umur, pengalaman mengajar dan gred jawatan responden, dan inferensi ujian-t, ANOVA dan Pearson Correlation digunakan untuk menguji hipotesis-hipotesis dalam kajian ini. Dapat dijukan, gaya kepimpinan yang paling dominan diamalkan oleh para guru besar di sekolah ASC. Dapat dijukan, gaya kepimpinan yang paling dominan diamalkan oleh para guru besar di sekolah ASC. Dapat dijukan, gaya kepimpinan yang paling dominan diamalkan oleh para guru besar di sekolah ASC. Analisis menunjukkan terdapat hubungan yang kuat antara gaya kepimpinan guru besar dengan aspek kepimpinan budaya ilmu, permuafakatan, motivasi dan dorongan, kepimpinan kurikulum dan pengupayaan kepimpinan berada pada tahap yang tinggi, terutamanya dalam aspek kepimpinan budaya ilmu. Kesimpulan yang diperoleh daripada kajian ini ialah guru besar haruslah cekap dalam pengamalan gaya kepimpinannya mengikut keperluan situasi.

Kata Kunci: gaya kepimpinan guru besar, faktor kepimpinan guru besar, Anugerah Sekolah Cemerlang

ICE 22
DEVELOPMENT OF 21ST CENTURY SCHOOL TEACHERS’ TEACHING COMPETENCIES IN INDIA

Mohd Hasan
Department of Education,
Aligarh Muslim University, Aligarh, U.P.,
India- 202002
E-mail: mhasanedu@gmail.com

ABSTRACT

21st century has been considered as the era of exponential growth of knowledge and global competition. Globalisation process has put the nation in to the dearth of tough competition. Efficiency to survive in this competition is determined by the quality of education which plays a very pivotal role in the process of the 21st century nation building. There is no doubt that education plays a very crucial role in the development of nation but the quality of education, especially school education is very much determined by the competency and quality of teachers. Significant makeshift has been taking place in the process of teaching and learning. Construction of knowledge is getting importance over the traditional way of manufacturing knowledge. Dream of quality based education cannot be claimed true until the school teachers would be competent enough in all the viable and desired teaching competencies. As the changes have been taking place in the every possible walks of life, field of teaching and learning too. In India, National Council of Teacher Education (NCTE, 1973) is responsible to land the norms and guidelines for the affiliation and accreditation of teacher education institutions at national level. Moreover, it also list the competencies required for teaching. However, competencies listed by NCTE are seemed to be vehemently debated and reorganised in the light of 21st century. Therefore, the present research article based paper aims to discuss the NCTE listed teaching competencies in the light of 21st century. It also aims to discuss the meaning and characteristics of key teaching competencies of school teachers.

Key words: Teaching Competencies; NCTE; NCF.
HUBUNGAN ANTARA BUDAYA Formal SEKOLAH DAN GAYA PEMBELAJARAN PELAJAR DENGAN PENCAPAIAN AKADEMIK PELAJAR SEKOLAH MENENGAH

Siti Salawati Binti Hj Salat¹, Azizi Yahaya¹, Gooh Mo Lee², Hjh Kartini Binti Hj Bakar¹, Dyg Suriati Binti Hj Awg Mohamad¹, Hjh Noraini Binti Hj Saman¹
¹Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam
²Fakulti Pendidikan, Universiti Kebangsaan Malaysia

ABSTRAK


Kata kunci: budaya formal sekolah, gaya pembelajaran pelajar, pencapaian akademik
GAYA ASUHAN IBU BAPA, KONSEP KENDIRI DAN PENGARUH RAKAN SEBAYA
TERHADAP SALAH LAKU PELAJAR

Hajah Surayati Binti Hhj Ahmad Shah¹, Azizi Yahaya¹, Gooh Mo Lee², Dk Norhasinahwati
Bte Pg Hj Idris¹, Pg Ramahayati Bte Pg Hj Pg, Hj. Mahmud¹, Ku Suhalia Ku Ali@Ku Johari²
¹Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam
²Fakulti Pendidikan, Universiti Kebangsaan Malaysia

ABSTRAK

Kajian korelasi yang menggabungkan statistik deskriptif dan inferensi ini bertujuan untuk melihat
gaya asuhan ibubapa, kendiri pelajar dan pengaruh rakan sebaya terhadap salah laku pelajar. Kajian ini melibatkan dua buah sekolah Menengah di daerah Brunei Muara, yang mempunyai rekod salah laku yang tinggi. Kajian ini melibatkan 54 orang pelajar dan instrument kajian menggunakan borang soalselidik. Dapatan kajian menunjukkan salah laku fizikal adalah perlakuan yang paling dominan dilakukan oleh para pelajar dengan skor min adalah 1.41. Faktor yang paling dominan mempengaruhi salah laku pelajar adalah faktor kendiri (M = 3.29). Gaya asuhan autoritatif (M = 3.9) pula menjadi gaya asuhan yang paling dominan diamalkan oleh ibubapa pelajar. Statistik inferensi menunjukkan hubungan yang signifikan antara gaya asuhan permissif (r = 0.117, p>0.4) dengan salah laku pelajar, pengaruh negative rakan (r = 0.206, p>0.134) dengan salah laku pelajar, gaya asuhan authoritarian (r = 0.009, p>0.0275) dengan kendiri pelajar dan gaya asuhan autoritatif (r = -0.171, p>0.0765) dengan kendiri pelajar. Satu model peramal gaya asuhan ibubapa, kendiri pelajar, pengaruh rakan, jantina dan peringkat sekolah telah dibina berdasarkan kepada analisis pelbagai regresi (stepwise).

Kata kunci: Gaya Asuhan Ibubapa, Konsep Kendiri, Rakan Sebaya, Salah Laku Pelajar
PERKAITAN ANTARA MODEL ‘THE BIG FIVE’ PERSONALITI, PENGARUH GAYA KEIBUBAPAAN DAN KECERDASAN EMOSI DENGAN PENCAPAIAN AKADEMIK PELAJAR SEKOLAH RENDAH

Noorhayati Hj Emran¹, Azizi Yahaya¹, Gooh Mo Lee², Salwa Mahalle¹, Suzana Hj Md Jaini (suzana.hmj@gmail.com)¹, Hjh Haziah Hj Jamaie (hazsam_2712@hotmail.com)¹
¹Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam
²Fakulti Pendidikan, Universiti Kebangsaan Malaysia

ABSTRAK


Katakunci: Kecerdasan emosi, pencapaian akademik, gaya keibubapaan dan big 5 personaliti
KESAN GAYA KEIBUBAPAAN, KONSEP KENDIRI DAN RAKAN SEBAYA TERHADAP PEMBENTUKAN TINGKAH LAKU REMAJA

Inderawati Binti Hj Damit¹, Azizi Yahaya¹, Gooh Mo Lee², Dyg Maslina Binti Hj Awg Ali¹ Siti Hilmiah Binti Yahya¹
¹Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam
²Fakulti Pendidikan, Universiti Kebangsaan Malaysia

ABSTRAK

Kajian korelasi ini bertujuan untuk melihat gaya keibubapaan, kendiri pelajar dan pengaruh rakan sebaya terhadap salah laku pelajar. Kajian ini melibatkan tiga buah sekolah di daerah Brunei Muara dan Belait. Kajian ini melibatkan 60 orang pelajar dan instrument kajian menggunakan borang soal selidik. Dapatan kajian menunjukkan salah laku fizikal adalah perlakuan yang paling dominan dilakukan oleh para pelajar dengan skor min adalah 1.44. Faktor yang paling dominan mempengaruhi salah laku pelajar adalah faktor rakan sebaya (M = 3.44 ). Gaya asuhan autoritif (M = 3.86 ) pula menjadi gaya keibubapaan yang paling dominan diamalkan oleh ibu bapa pelajar. Statistik inferensi menunjukkan hubungan yang signifikan antara gaya asuhan permisif (r = 0.245,p<0.06) dengan salah laku pelajar, pengaruh negatif rakan (r = 0.11,p<0.34 ) dengan salah laku pelajar, gaya asuhan authoritarian (r = 0.286,p>0.026 ) dengan kendiri pelajar dan gaya asuhan autoritatif (r = 0.176,p<0.178 ) dengan kendiri pelajar. Regresi pelbagai menunjukkan bahawa gaya keibubapaan, kendiri pelajar, pengaruh rakan, jantina dan peringkat sekolah merupakan faktor peramal kepada salah laku pelajar. Satu model peramal telah dibina berdasarkan kepada analisis pelbagai regresi (stepwise).

Kata kunci: Gaya Keibubapaan, Konsep Kendiri, Rakan Sebaya, Salah Laku Pelajar
SOCIAL AND EMOTIONAL DEVELOPMENT AND ACADEMIC PERFORMANCE OF PUPILS IN SINGLE AND MIXED GENDER SCHOOLS.

Brizuela, Geraldo P

1University Of Nueva Caceres, Naga City, Philippines 2015

ABSTRACT

The study determined the correlation between the social and emotional development and academic performance in selected single and mixed gender schools in Naga City, Philippines, for the School Year 2013-2014. A survey instrument assessed the level of emotional and social development of grade 6 pupils participated in this investigation. The students’ grades in English, Math, and Science were utilized to measure their academic performance in the said key subject areas. The results showed that students coming from mixed-gender schools were emotionally and socially developed as compared to their counterparts from the single-gender schools. In terms of their academic performances, there were no significant differences between students coming from both types of schools. Overall, it was found out that there is highly significant relationship between the students’ emotional and social development and their academic performances.

Keywords: Single-gender schools, Mixed-gender schools, Social and Emotional Development, Academic Performance
INNOVATIVE LEARNING SPACES IN PANAGA PRIMARY SCHOOL, BRUNEI DARUSSALAM

Dewi Fitriza Hj Razali
Panaga Primary School, Brunei Darussalam

ABSTRACT

The report is based on the journey of Panaga Primary School, Brunei Darussalam towards having innovative learning spaces for the pupils and teachers since 2013. Panaga Primary School collaborated with the iDigital consultant from E-Hijrah to start our CiMS Project (Computing in Model Schools) in terms of the Infrastructure and Pedagogy. It is used as a learning hub for teachers and pupils to implement the 21st Century Teaching and Learning which is equipped with four Learning Studios. The Learning Studios act as the main rooms for the classes consisting of the Early Childhood, Year 1, 2 and 3 pupils. We also have two Da’Vincci studios. One of the Da’Vincci Studios is where activities such as cooking, painting and Art Works are done. The other Da’Vincci Studio focused more on technology. There is a podcast room inside the Da’Vincci studio. It is a room filled with recording technologies where pupils use to record their voice for group projects or other activities. All the pupils from the learning studios share the common area in the middle. This common area act as a ”Campfire” area where all of the community can meet and learn from each other. Teachers use the “Fishbowl Area” to do professional discussions and collaborate to plan lessons together.
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CABARAN YANG DIHADAPI SEKOLAH RENDAH SULTAN HASHIM BATU APOI DALAM USAHA MENUBUHKAN KELAS TAMAN ASUHAN/ KINDERGARTEN YANG PERTAMA BAGI SEKOLAH RENDAH KERAJAAN DI NEGARA BRUNEI DARUSSALAM

Limawati Galawat dan Mohammad Zool Fadli Bin Haji Mahbub
SR Sultan Hashim Batu Apoi Temburong

ABSTRAK


Katakunci: Pengukuhan, pendidikan dan perkembangan
PROFESSIONAL DEVELOPMENT OF 21ST CENTURY TEACHERS IN HIGHER EDUCATION

Mohammad Parvez
Department of Education,
Aligarh Muslim University, Aligarh, U.P.
India-202002
E-Mail: mparvez9@yahoo.co.in

ABSTRACT

The present research article aims to discuss the professional development of teachers in higher education in India. It also analyse the elements and area of professional development of teachers in 21st century. As it has been claimed that 21st century acting as an active force behind the rapid transition of higher education. Traditional means of knowledge are all most washed out by the scientific ways. Use of information and technology has got maximisation in each and every fields of knowledge. The whole world moving fast to make permanent impression in the world of knowledge. Nation after nation is coming forward with the novel facts of life. Researchers are getting acceleration in all the academic fields. Most of the countries are busy in restructuring their higher education system in order to survive in this competitive world. As the 21st century has brought about quantitative and qualitative changes in all the disciplines of knowledge. But we cannot ripe the fruits of such occurred and occurring transformations until we have professionally developed and trained teachers in higher education system. The whole gamut of higher levels of knowledge and scientific researches is defined and structured by the teachers of higher education. Teachers have become the main organs of quality based education as well as in maintaining the social and economical health of nation. The quality of education depends upon the quality of the teachers. Quality assurance has got the voice in the higher education system. Emphasis is given to professional development of teachers in higher education. Several short term and refreshers courses mooted out by experts to train and develop the professional competency of teachers in the higher education. In India, most of the universities running refresher courses with the help of University Academic Staff colleges. These colleges are largely responsible to organise workshops and newly invented academic activities for the teachers’ professional development.

Key words: Professional Development of Teachers; Areas of professional Development.
RELATIONSHIP BETWEEN STRESS COPING FACTORS WITH STRESS LEVEL DURING PRACTICAL TRAINING AMONG TRAINEE TEACHERS: A PLS-SEM APPROACH

Ngui Geok Kim¹ & Lay Yoon Fah ²
Teacher Education Institute-¹ Gaya Sabah, Malaysia
nguigeokkim@hotmail.com
²Faculty of Psychology and Education, Universiti Malaysia Sabah
layyoonfah@yahoo.com.my

ABSTRACT

Practicum is one of the important aspects of teacher education. During the practicum, trainee teachers have the opportunity to experience and use their knowledge and skills in a real teaching and learning environment. However, the practicum creates a high level of stress among trainee teachers because it is the first real attempt at actual formal teaching for the trainee teachers. Trainee teachers have to teach according to a high quality standard, deals with numerous students’ behavior, adapt with the school climate on the aspects of administration, management and interaction with the school citizens, deal with various work demands and such. This study investigates the relationship between stress coping factors (resiliency, self-efficacy, emotional intelligence, and subjective wellbeing) with stress experienced during practicum among trainee teachers in the teacher education institutions in Sabah. Further to that, this study will also propose a relational model between resiliency, self-efficacy, emotional intelligence, and subjective wellbeing with stress using the PLS-SEM approach. This study involves 400 randomly selected trainee teachers who are currently undergoing bachelor level teaching training programme at in teacher education institutions in Sabah. The questionnaires used in this study were the Resiliency Scale for Young Adults (RSYA) (to measure trainee teachers’ resiliency based on three subscales which are sense of mastery, sense of relatedness, and emotional reactivity). Trainee teachers’ self-efficacy (teaching strategy, classroom management and students’ involvement) was measured by the Teachers’ Sense of Efficacy Scale. The Emotional Intelligence Traits Scale was used to measure trainee teachers’ emotional intelligence while Satisfaction with Life Scale (SWLS) was used to measure subjective wellbeing. Stress level among trainee teachers during practicum was measured by the Rating Pre-Service Teacher Events for Stress. Collected data were analysed using the PLS-SEM approach. It is hoped that this study will provide more understanding about stress and stress coping abilities among trainee teachers especially during practicum so that strategic measures to ensure appropriate orientation, content, and practice during practicum can be planned and implemented in an effort to prepare high quality educators.

Keywords: practicum, stress, stress coping factors, resiliency, self-efficacy, emotional intelligence, subjective wellbeing, PLS-SEM
Kajian ini bertujuan untuk mengenal pasti persepsi guru mengenai tingkah laku gangguan seksual, bentuk-bentuk gangguan seksual yang berlaku, prosedur aduan, kesan-kesan akibat gangguan seksual dan hubungannya dengan prestasi kerja. Seramai 60 orang guru dari tiga buah sekolah menengah di daerah Brunei-Muara dipilih secara kelompok atas kelompok. Instrumen kajian yang digunakan merupakan adaptasi daripada soal selidik Experiences Of Sexual Harassment (SHEQ) dan The Sexual Harassment Questionnaires (SHAS). Darjah kebolehpercayaan (alfa cronbach) bagi instrumen yang digunakan dalam kajian ini ialah 0.969. Dapatan kajian menunjukkan tidak terdapat perbezaan yang signifikan antara gangguan seksual bedasarkan status perkahwinan. Walau bagaimanapun, dapatan kajian menunjukkan terdapat perbezaan yang signifikan gangguan seksual berdasarkan jantina, taraf pendidikan, lokasi dan bangsa. Dapatan kajian juga menunjukkan tidak terdapat hubungan yang signifikan gangguan seksual dengan pengalaman mengajar tetapi terdapat hubungan yang signifikan gangguan seksual dengan umur dan pendapatan. Terdapat hubungan yang signifikan kesan gangguan seksual dengan prestasi kerja di kalangan guru.

Kata kunci: Gangguan seksual, prestasi kerja, taraf pendidikan
ABSTRACT

Formative assessment informs teachers about their practice (assessments for learning) and supports students learning and develops their ability to take responsibility (assessment of learning). This case study reports the types of formative assessment practiced by three Pure Science teachers teaching Year 10 Science 1 in a government secondary school. The teaching experience of these three teachers ranged from more than 20 years to just about 3 years. Lesson observations and interviews were conducted on the three teachers. For students’ perceptions, two Year 10 Science classes consisting of 55 students were asked to fill in a simple survey. In the survey, there was no mention of the words ‘formative’ or ‘summative’ except examples of different types of formative and summative assessments. Results from the lesson on the observations showed that regardless whether the teacher was very experience or very new, there was little or no formative assessment done during the lessons. The more experienced teacher said that she preferred summative types of assessment because they were easier to conduct. On the other hand, although the younger teacher had heard about formative assessment, she had limited knowledge on how to carry it out. In terms of students’ understanding, 56% preferred their teachers to use formative types of assessments but they were rarely used. This study indicated the need for teachers to understand the purpose of formative assessment and productive feedback, and to develop skills on how to conduct effective formative assessment essential for promoting students’ learning.
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READINESS IN IMPLEMENTING SCHOOL BASED ASSESSMENT AMONG TEACHERS

Ikhsan Othman\(^1\) and Norila Md Salleh\(^2\)

Department Of Education Studies, Sultan Idris Education University, 35900 Tanjong Malim, Perak Dr. Malaysia

\(^1\)ikhsan@fppm.upsi.edu.my
\(^2\)norila@fppm.upsi.edu.my

ABSTRACT

This paper discusses primary teachers’ readiness in implementing school based assessment (SBA). It is based on a study conducted in Malaysia as it was newly implemented at the time the study was done. The study embarked on teachers’ understanding of SBA; teachers’ ability to implement SBA; facilities given for implementing SBA; and time adequacy for implementing SBA. A total of 157 primary school teachers, comprised of 61 males and 96 females were involved in the study as respondents. Data were collected with the use of 4 Likert scale questionnaire developed by the researchers. The questionnaire has reliability \(\alpha = .79\) where it is moderately reliable. The result of the study shows that respondents had the readiness to implement SBA especially on the understanding of SBA; ability to implement SBA; and facilities given for implementing SBA. On the other hand respondents have negative response on time adequacy to implement SBA. Overall \(t\)-test analysis shows that there is no significant difference at \(p < .05\) in the response between male and female respondents regarding with the issues mentioned. Interviews with few of randomly selected respondents were also done in the study. In the interviews the respondents responded similar with what were responded on the questionnaire but most of the respondents strongly suggested that the facilities given for implementing SBA especially ICT facilities should be upgraded. For further research, it is suggested to detail and widen out the aspects of SBA; and also to use larger sample size to acquire broader and more detail perspectives about the readiness of SBA implementation among teachers.

Keywords: Teachers’ readiness, school based assessment.
KONSEPSI GURU PENDIDIKAN ISLAM TERHADAP ‘SBAfL’ DI SEKOLAH MENENGAH DI NEGARA BRUNEI DARUSSALAM

Hjh Norwati Hj Abu Bakar, Mohd Isa Hamzah & Ab.Halim Tamuri
Fakulti Pendidikan, Universiti Kebangsaan Malaysia, 43000 Selangor, Malaysia

ABSTRAK


Kata kunci: Pentaksiran, Pengajaran dan Pembelajaran
ABSTRACT

The report is based on the experience of Panaga Primary School Learning Space teachers in adopting the transitional change from implementing a teacher – centred learning approach to the 21st century teaching and learning in the classroom. The changes and challenges provided us with the opportunities to develop our pedagogical content knowledge and teaching strategies aligned to the aspiration of SPN 21. Teachers are working collaboratively within their own team and are trained using digital technologies in their teaching. During the lesson planning, teachers work together in sharing their ideas and preparing resources for their pupils. This changing culture provides the teachers with an endless opportunity to learn from one another in enhancing their pedagogy skills. Furthermore, with the aid of technology tools as one of the intellectual stimulations in the learning space, teachers were able to develop innovative and creative lessons. Hence, this has increased the pupils’ participation in the lesson and can develop their 21st century skills.
THE IMPLEMENTATION OF TEACHING AND LEARNING ACTIVITIES OF THE PRESCHOOL ENGLISH PROGRAMME (PSEP)

Hajah Nurul Azlin Ahmad dan Hanapi Mohamad
Sultan Hassanal Bolkiah Institute of Education, Universiti Brunei Darussalam, Brunei Darussalam

ABSTRACT

This research is to explore and discover how the teachers teach English to preschool children by following the PSEP guideline after four years of its implementation. Moreover, this research is also to investigate on how teachers have incorporated the play-based approaches and the literacy aspect in their daily teaching and to explore the issues that arise. The following questions underpinned in this study is how do the teachers conduct the teaching and learning activities of PSEP. Qualitative research methodology was applied in order to explore more in-depth of the teaching processes of the PSEP. Data were collected from six different schools in the Brunei-Muara district by using three methods: lesson observations, teachers’ interviews, and document. The finding of this study revealed that both sets of categorised teachers have no differences in teaching the PSEP. It is shown that the teachers tended to manipulate the programme in order to fit their children learning abilities. In the end, this research suggests how teachers, head-teachers and the policy-maker may perhaps utilize the finding of this research to various educational situations in order to improvise the teaching and learning of PSEP.

Keyword: play based approaches, leaning and teaching
THE EFFECTIVENESS OF GROUP SAND PLAY THERAPY AMONG CHILDREN FROM DIVORCED PARENTS

Azizi Yahaya\textsuperscript{1} and *Gooh Mo Lee\textsuperscript{2}, Ku Su haila Ku Ali@Ku Johari\textsuperscript{2}
\textsuperscript{1}Sultan Hassanal Bolkiah Institute of Education, Universiti Brunei Darussalam
\textsuperscript{2}Faculty of Education, Universiti Kebangsaan Malaysia

ABSTRACT

This research was conducted to identify the process of counselling with school counsellors who utilize sand play therapy techniques among 50 children aged 7 to 12 years old who parents divorced in Malacca Convent Infant Jesus 1 Primary School, Malaysia. It allows children to assert control and to engage in a complex creative process that may enhance feelings of competency and self-worth. The instrument used in this research was Self-esteem, Mooney Checklist and Self Development Instrument for expression. The reliability test obtained from the instrument used Mooney checklist was 0.69, Self esteem 0.79 and 0.71. Communication. Data were analyzed using SPSS version 21 by using Manova Repeated Method, pre-test and post-test instruments. The results from multivariate Pillai’s Trace test shows that the main effect of the main variable from the post test is significant \([F(3.47)=47.62, p<0.05]\). The result of multivariate Pillai’s Trace test of within-subjects Effect as whole, shows that there is significant differences between pre-test and post-test \(p<0.05\). The Univariate Tests shows that there is an effect of independence variable pre-test toward all three dependence variables esteem \(F(1,49)= 54.12, p<0.05\), problem \(F(1,49)= 42.223, p<0.05\), and communication \(F(1,49)= 89.460\). In conclusion, it seems that sand play therapy can be used in primary school to help children to learn problem-solving skills and communicate with others.

Keywords: sand play therapy, counselling, self esteem, communication and creative
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ICT-BASED INQUIRY INSTRUCTIONS FOR STUDENT LEARNING IN YEAR 9 BIOLOGY

Dk. Hjh. Siti Fatimah Pg. Hj. Petra, Poh Sing Huat, Lim Siew Bee
SHBIE, Universiti Brunei Darussalam

ABSTRACT

This paper presents the preliminary findings of a larger study, which investigates the effects of using ICT-based Inquiry Instructions (IBII) on Year-9 biology students’ learning outcomes in Brunei Darussalam. The IBII learning materials were developed by the researcher based on the Scaffolding Knowledge Integration Framework of Web-based Inquiry Science Environment - WISE (Linn & Eylon, 2011). The learning activities required students to work independently as well as collaboratively on the tasks related to virtual experiments, interactive animations, video and audios. The content of the activities focused on two major biology topics, namely ‘Journey inside your body’ and ‘Excrete’. Test scores and questionnaire were used to assess students’ learning outcomes. From the preliminary findings, the study revealed that IBII enhanced students’ achievement and other learning outcomes such as having more positive learning attitudes, including working independently and collaboratively. This study has implications for science teaching and for supporting Brunei’s newly introduced education system, SPN21.
INVESTIGATING YEAR 12 BIOLOGY STUDENTS’ RESPONSES TO STANDARDIZED END-OF-YEAR STRUCTURED-QUESTIONS EXAMINATION

Rahmat Tarsat, & Chee Sheng Onn,
PTE Tutong

ABSTRACT

Biology education has always been associated with huge amount of memory recall. While some students enjoyed this aspect and can regurgitate well, many fail to see the real beauty of understanding in depth what happens in biology at the molecular level and beyond. Hence, we are interested in investigating whether our students are capable of inferring from reading background information as well as differentiating those that are relevant to addressing the questions asked with mere supplementary information. In addition, deciphering information from table to support their essay responses proves problematic for many students. We quantify these domains by tallying the number of scoring points students gain from the relevant respective items, the occurrence of out-of-context responses as well as non-attempted responses. These valuable data would be instrumental for how to improve students’ learning and more importantly, how biology tutors can help them to overcome these challenges in anticipation for public examination next year.

Keywords: Biology education, literacy in science, summative assessment, quantitative study, higher-order cognitive
THE EFFECTIVENESS OF I-THINK MAP USED IN THE ARCHIMEDES PRINCIPLE LEARNING MODULE ON FORM FOUR STUDENTS’ PHYSICS ACHIEVEMENT

Lisa Binti Polus\textsuperscript{1} & Lay Yoon Fah\textsuperscript{2}
\textsuperscript{1}SM Saint Anthony, Tenom, Sabah.  
lc\_sweet@yahoo.com
\textsuperscript{2}Faculty of Psychology And Education, Universiti Malaysia Sabah  
layyoonfah@yahoo.com.my

ABSTRACT

As a result of discouraging science and mathematics achievement among Malaysian Grade 8 students in TIMSS 2011, the i-think program was introduced to enhance and cultivate thinking skills in an effort to produce innovative Malaysian students. This study was conducted to examine the effectiveness of using i-Think map used in the Archimedes Principle learning module on the Physics achievement among Form Four students in Sabah. This quasi-experimental study involved science students selected from two secondary schools. A total of 30 students and 20 students were assigned to the experimental group and the control group, respectively. The ultimate goal of this research was to investigate the effectiveness of using i-Think map in Archimedes Principle learning module on Form Four students’ performance in Physics. Quasi-experimental research method was chosen for the investigation. Pre-test and post-test were administrated to the secondary school students and the data were analysed using paired sample t-test, independent sample t-test, and ANCOVA. The results of this study will provide a better picture about the effectiveness of the use of i-Think map in overcoming students’ misconceptions in the topic of Archimedes Principle.

Keywords: i-think map, Archimedes Principle, learning module, TIMSS, physics achievement, quasi-experimental research
Kajian ini merupakan kajian awal untuk mengenal pasti dan menganalisis pelaksanaan proses pengajaran dan pembelajaran (P&P) bacaan al-Quran dan hafazan mahasiswa dalam program Ijazah Sarjana Muda di institusi pengajian tinggi tempatan. Kajian ini menggunakan model CIPP yang melibatkan penilaian bahagian konteks, input, proses dan produk. Sebanyak 50 orang mahasiswa terlibat dan data dianalisis menggunakan perisian SPSS untuk mendapatkan frekuensi, peratus, dan min. Dapat diambil bahawa tahap kebolehpercayaan instrumen kajian bahagian proses P&P adalah sangat tinggi iaitu nilai alpha Cronbach 0.969. Jumlah skor setiap aspek yang dinilai ialah skor min aspek strategi di tahap tinggi (min=4.25), aspek kaedah di tahap sederhana tinggi (min=3.80), aspek teknik di tahap sederhana tinggi (min=3.67). Manakala aspek aktiviti di tahap sederhana rendah (min=2.18), aspek adab di tahap sederhana rendah (min=2.79), aspek ABM di tahap sederhana rendah (min=2.30) dan aspek penilaian dan teknik penilaian di tahap sederhana rendah (min=2.87). Kesimpulannya, walaupun kajian ini merupakan kajian awal, namun jumlah skor menunjukkan bahawa terdapat beberapa aspek dalam bahagian proses pengajaran dan pembelajaran yang boleh terus dikekalkan di samping ada juga beberapa aspek yang perlu dipertingkatkan untuk penambahbaikan.

Kata kunci: Penilaian, Bacaan al-Quran dan hafazan, pengajaran & pembelajaran, CIPP
SISTEM PENILAIAN DAN TAĦAP PENCAÞAÞAN PELAJAR DALAM MATA PELAJARAN TAFSIR AL-QUR’AN DI PERINGKAT MENENGAH NEÞARA BRUNEI DARUSSALAM

Hajah Sarinah binti Haji Yahya
Fakulti Usuluddin, Universiti Islam Sultan Sharif Ali (UNISSA)
Negara Brunei Darussalam
sarina@unissa.edu.bn

ABSTRAK
Proses pengajaran dan pembelajaran ilmu secara formal sememangnya diakhiri dengan penilaian. Tujuannya adalah untuk mengetahui tahap pengetahuan atau mengukur tahap pencapaian pelajar terhadap ilmu yang telah mereka terima. Matlamat kajian ini ialah untuk memberikan deskripsi tentang sistem penilaian atau peperiksaan yang dilaksanakan bagi mata pelajaran Tafsir al-Qur’an di peringkat menengah di Negara Brunei Darussalam. Seterusnya kajian mengukur tahap pencapaian pelajar dalam mata pelajaran tersebut. Seramai 904 orang responden terlibat dalam kajian ini; iaitu terdiri daripada 830 orang pelajar dan 74 orang guru dari 9 buah sekolah menengah Kementerian Pendidikan dan 3 buah sekolah menengah Arab Kementerian Hal Ehwa l Ugama. Analisis data kajian dibuat secara metode deskriptif menggunakan SPSS version 16.0 melalui frekruensi atau taburan kekerapan dan peratus. Hasil kajian mendapati beberapa titik persamaan dan juga jurang perbezaan dalam topik kajian antara kedua-dua jenis sekolah tersebut. Seterusnya beberapa masalah dikenalpasti telah dihadapi oleh para responden guru dan pelajar dalam pelaksanaan penilaian bagi subjek Tafsir dan tahap kefahaman serta pencapaian pelajar dalam subjek tersebut.

Kata kunci: Sistem penilaian, Tafsir al-Qur’an, peringkat menengah
PENGAJARAN DAN PEMBELAJARAN AL-QURAN MELALUI PROGRAM INSYIRAH DI SEKOLAH-SEKOLAH UGAMA NEGARA BRUNEI DARUSSALAM: SATU KAJIAN AWAL

1Hjh Norsiah binti Haji Abdullah dan 1Gamal Abdul Nasir bin Haji Zakaria
1Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam

ABSTRAK


Kata kunci: Program Insyirah, Pengajaran dan Pembelajaran Al-Quran, Murid Sekolah Ugama (Rendah Bawah)
ICE 45

MENINGKATKAN KEMAHIRAN MENGENAL DAN MEMBEZAKAN MAHKRAJ HURUF BAHAGIAN LIDAH DALAM MATA PELAJARAN TAJWID DARJAH IV DENGAN MENGGUNAKAN PERMAINAN INTERAKTIF PINGPONG TAJWID

Noorhaizadatul Akmar Hj Metamit¹, Rahinah bte Abdul Rahim dan Pg Hjh Nur-Ashikin Pg Hj Petra²

¹ Pusat Tingkatan Enam Tutong, Sekolah Ugama Pg Muda Abd Malik Bengkurong,
²Institut Pendidikan Sultan Hassanal Bolkiah Universiti Brunei Darussalam

ABSTRAK

Kata kunci: Kemahiran, makhraj, Tajwid.
KEBERKESANAN ALAT BANTU BELAJAR MELALUI KAEDAH “KOMIK-LAKON” DALAM MATA PELAJARAN TASAWWUF

Khairul @ Muhammad Zakwan bin Haji Julay1 dan Pg. Hjh. Nur Ashikin Binti Pg. Hj. Petra2
1Sekolah Ugama Salambigar, JPI, KHEU, Negara Brunei Darussalam
2Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam

ABSTRAK


Kata kunci: Keberkesanan, Komik-Lakon dan Tasawwuf.
ICE 47

SIKAP PELAJAR DALAM PENGAJARAN Fiqh BERBANTUKN PERISIAN MULTIMEDIA

Institut Pendidikan Sultan Hassanal Bolkiah,
Universiti Brunei Darussalam

ABSTRAK

Kertas kerja ini ditulis berdasarkan satu kajian yang telah dilaksanakan oleh pengkaji. Kajian ini bertujuan untuk mengkaji sikap para pelajar dalam pengajaran Fiqh berbantukan perisian multimedia dalam konteks pelajaran Pengetahuan Ugama Islam Tahun 10 di salah sebuah sekolah menengah di Negara Brunei Darussalam. Objektif utama kajian ini adalah untuk mengenal pasti sikap para pelajar terhadap pembelajaran Fiqh selepas kajian dilakukan. Kajian ini satu kajian kualitatif menggunakan instrumen temu bual secara focus group kepada 5 orang pelajar Tahun 10 telah dilaksanakan untuk melihat perubahan sikap mereka terhadap pembelajaran Fiqh berbantukan perisian multimedia. Hasil kajian menunjukkan berlakunya perubahan sikap pelajar khususnya dalam pembelajaran aktif dalam pembelajaran Fiqh berbantukan multimedia. Disamping itu, minat, motivasi, keyakinan serta keseronokan untuk mempelajari mata pelajaran tersebut menunjukkan kesan yang positif.

Kata kunci : Sikap, Pengajaran Fiqh dan Multimedia.
KESAN KAEDAH JIGSAW II TERHADAP PENCAPAIAN PENULISAN KARANGAN MURID TAHUN 5

Suraya Tarasat A, Rafeah Mohd Salleh, Noradinah Jaidi, Sri Kartika A.Rahman, Hanapi Mohamad
AUniversiti Brunei Darussalam, Brunei Darussalam
suraya.tarasat@ubd.edu.bn

ABSTRAK


Kata Kunci: Kaedah Jigsaw II, penulisan, karangan jenis fakta, kuasi eksperimen, murid Tahun 5
ABSTRAK

Kebanyakan kajian yang menggunakan model Learning Cycle 5E adalah kajian-kajian dalam mata pelajaran Sains. Walau bagaimanapun, satu kajian kuasi-eksperimen telah dilaksanakan dengan menggunakan model ini dalam pengajaran dan pembelajaran karangan Bahasa Melayu tahun 5. Tujuan kajian ini dilaksanakan ialah untuk mengenal pasti pencapaian keseluruhan penulisan karangan antara pelajar kumpulan eksperimen dan pelajar kumpulan kawalan dalam ujian prakajian dan pascakajian. Seramai 34 orang pelajar dipilih untuk dijadikan responden, iaitu 17 orang pelajar bagi kumpulan kawalan dan 17 orang pelajar bagi kumpulan eksperimen. Data-data dianalisis dengan menggunakan Perisian Statistical Package for Sosial Sciences (SPSS) versi 20. Hasil dapatan menunjukkan tidak terdapat perbezaan yang signifikan antara skor min pencapaiaan bagi kedua kumpulan dalam ujian prakajian dengan nilai $t(34) = .59, p>0.05 \ (p=.586)$. Walau bagaimanapun, terdapat perbezaan skor min bagi kedua-dua kumpulan dalam ujian pasca kajian dengan nilai- $t (34) = 2.59, p < 0.05 \ (p = .015)$.

Kata Kunci: karangan deskriptif, Learning Cycle 5E, kuasi-eksperimen.
ICE 50

PERSEPSI MURID TERHADAP PENGGUNAAN TEKNIK NUMBERED HEADS TOGETHER DALAM MENINGKATKAN PENCAPAIAN PENULISAN KARANGAN BERGAMBAR

Sri Kartika Abdul Rahman, Suraya Tarasat, Noradinah Jaidi & Harinah Mohamad Shara
Institut Pendidikan Sultan Hassanal Bolkiah
Universiti Brunei Darussalam

ABSTRAK


Kata Kunci: Kemahiran menulis, karangan bergambar, Numbered Heads Together, murid Tahun 5, Negara Brunei Darussalam.
ICE 51

INVESTIGATING MISCONCEPTIONS IN CHEMICAL ENERGETICS ACROSS YEARS 10 TO 12 CHEMISTRY STUDENTS IN BRUNEI DARUSSALAM

Chee Sheng Onn¹ & Yih Vei Onn²
¹PTE Tutong
²SM Tanjong Maya

ABSTRACT

Chemical energetic explains about the change of energy from one form to another during a chemical reaction. This cross-age study involves Years 10 to 12 chemistry students across six government schools in Brunei. This paper reports misconceptions of chemistry students in Brunei regarding ideas of chemical energetics with the use of pre-validated two-tier Chemical Energetics Diagnostic Instrument (CEDI). These findings can be used to generalise concepts in chemical energetic which students are most prone to develop misconceptions early on and hence utilise these research findings with Bruneian students to design lessons for conceptual changes. The authors are surprised to see that although the Year 12 sample perform better across all five items of CEDI than their junior year groups, these are not statistically significant except for two items. Also reported herein is whether gender has a correlation with item-by-item performance. This study found that male sample group students, in general, grasp chemical energetics on the same par as their female counterparts. Apart from one item, there is otherwise no significant statistical difference in terms of gender.

Keywords: misconceptions, chemical energetics, exothermic, endothermic, activation energy, two-tier, quantitative
ABSTRACT

Matter is composed of tiny indivisible particles called atoms. Depending on how these atoms are combined or mixed, we can get matter that is either pure substances or impure substances respectively – these concern the particulate nature of matter typically introduced at the start of Year 9 chemistry syllabus in Brunei. It is worrying that many students who opted to do advanced chemistry cannot differentiate elements, compounds and mixtures accordingly as well as what constitutes physical and chemical changes. Hence, it is important to diagnose early the misconceptions amongst Year 9 and 10 students and design suitable conceptual change strategies. This study investigates these misconceptions with a two-tier Particulate Nature of Matter (PNM) instrument and thus is quantitative. In light of the findings, future chemistry educators can emphasise accordingly and link appropriate contents at suitable times, when teaching particulate nature of matter.

Keywords: elements, compounds, mixtures, physical change, chemical change, particulate nature of matter, misconceptions
ICE 53

STUDENTS’ PERCEPTION OF PHYSICS CLASSROOM LEARNING ENVIRONMENT USING INQUIRY BASED TEACHING APPROACH

Irma Suriani Bte Haji Abd Majid
SHBIE, Universiti Brunei Darussalam

ABSTRACT

Creating an effective learning environment for students has been the priority of education. This is because an effective classroom learning environment can promote meaningful learning which can lead to better achievement, motivation as well as attitudes towards learning. This meaningful learning in an effective classroom learning environment could be achieved via adopting appropriate teaching strategy that promotes active students learning, that are enable for the students to stimulate excitement when learning physics and acquiring the skills that apt to 21st century learning. This study examined how using inquiry based teaching approach to teach physics affect students’ achievement and their learning. Also, to investigate students’ perception of their physics classroom learning environment in a way to determine which scales of classroom environment occur the most and to find out the difference in students’ perception of their classroom learning environment before and after adopting inquiry based teaching strategy. Pre and post test were used to assess students’ achievement and WIHIC (What is happening in this class) questionnaire was used to find out students’ perceptions of classroom learning environment. The study was conducted in one of the technical and vocational schools. The outcome of the study showed that inquiry based teaching approach has improved students’ perceptions of their physics classroom learning environment and a positive improvement on students’ achievement.
IMPLEMENTING COOPERATIVE LEARNING STRATEGY TO PROMOTE VOCATIONAL TECHNICAL INSTITUTION (VTI) STUDENTS’ LEARNING

Dk Hjh Marlina Bte Pg Hj Metersad\textsuperscript{1} & Madiah Khalid\textsuperscript{2}
\textsuperscript{1}Sekolah Vokasional Nakhoda Ragam, Institute Of Brunei Technical Education
\textsuperscript{2}International Islamic University Malaysia

ABSTRACT

This study investigates the effect of Cooperative Learning (in this case Students Teams-Achievement Division) on the Vocational and Technical Institution (VTI) students’ achievement and attitude towards learning Mathematics. The study also explores the suitability of Cooperative Learning to be utilised as a mean of developing and assessing Common Skills in VTI. A total of forty four students and fifty five instructors were involved in this study which collected qualitative and quantitative data via tests, questionnaires, interviews, observations and journals. These various methods of data collection were employed to support and triangulate the study to give a more credible analysis and result. The result showed significant improvement in VTI students learning in terms of cognitive thinking and attitude towards Mathematics. However, the need to improve in the skills of Cooperative Learning was identified to hinder some students’ perception to fully consider Cooperative Learning as a very feasible pedagogy. In the second part of the research; from the surveys and interviews conducted, it was found out that the majority of the teachers did recognise the potentials of Cooperative Learning in developing as well as assessing of Common Skills. In conclusion, Cooperative Learning in this study has shown advantageous gains for the VTI students in terms of cognitive thinking and attitude towards learning Mathematics. In addition, Cooperative Learning was seen to possibly provide solutions in enhancing the assessment of Common Skills.
A STUDY ON THE USE OF FLIPPED CLASSROOM IN VOCATIONAL AND TECHNICAL INSTITUTION: STUDENTS’ PARTICIPATION AND PERCEPTIONS

Rafaa Nur Binti Haji Ranie¹ & Adeline Goh Yuen Sze²
¹Sekolah Vokasional Nakhoda Ragam, Bandar Seri Begawan, Brunei Darussalam
Email: rafaanur@hotmail.com
²University of Brunei Darussalam, Bandar Seri Begawan, Brunei Darussalam
Email: adeline.goh@ubd.edu.bn

ABSTRACT

For many years, the teacher-centred approach in student learning has been the leading option in higher education. However, Brunei has introduced its policy directions to adopt the education system according to the paradigm shift of student-centred learning in order to achieve one of the standards of best practices in education internationally. The purpose of this research is to study the use of flipped classroom in a vocational and technical institute in Brunei, focusing on students’ participation in the classroom and their perceptions on the use of this method of learning. Flipped classroom is a learning model in which the important content of a unit or course is moved outside of the schedule class time for students to learn independently, thus allowing the instructor to engage students in a more active learning inside the classroom. The main components of ‘flipped classroom’ include faculty guidance, high-order thinking, and student-centred learning. The research participants included Diploma level students from a Vocational and Technical institution within the Built Environment and Technology discipline. In this research, data is collected from participant observation during the activities in the classroom, and selected participants are interviewed regarding their perceptions after the implementation of the flipped classroom. While reading prior to classes proved to be a challenge for some students, the research indicates that flipped classroom can enhance students’ participation in a classroom, through spending more time on hands-on activities in the lessons. The findings also showed that flipped classroom improved students’ interaction with their instructor. Future research will include focusing on students’ preparation by giving consistent support in this learning approach.
ICE 56

POST-SECONDARY ASPIRATION DIFFERENCES AMONG UPPER SECONDARY STUDENTS: A DESCRIPTIVE COMPARISON BETWEEN SELECTED VOCATIONAL AND PUBLIC SCHOOLS IN MALAYSIA

Rosemaliza Kamalludeen
International Islamic University Malaysia, Malaysia, R
osekamalludeen@gmail.com

ABSTRACT
The Malaysian government has placed increased emphasis on technical and vocational education (TVET) at the secondary level in the tenth Malaysia Plan (2011-2015). As such, over the past three years, technical/vocational education and training (TVET) in Malaysia has gone through a transformation exercise, more specifically the migration from Sekolah Menengah Teknik dan Vokasional (Vocation and Technical Secondary Schools) to Kolej Vokasional (Vocational College). However, TVET is still seen as a second option to general public schools due to stigma associated with skill-based education and poor academic achievement. In relation to the TVET transformation effort, this study attempted to investigate the differences between public school and vocational school students in selected Malaysian schools, in terms of their post-secondary plans. Through this study, the possibilities of curriculum choice influence on their post-secondary aspirations will be explored. Students' perspectives on how their schooling experiences coincide with their projection of potential post-secondary paths will be explored, and whether vocational education will be appealing to students at various levels of academic achievement. This study takes on a case-study approach and utilizes a mixed-methods design, including correlations and focus group interviews. The findings from this study will help explore more possibilities in the replication of the study nationwide, as well as to provide a preliminary output to the TVET transformation exercise by the Ministry of Education Malaysia. The results may also be utilised to increase public awareness and involvement in TVET in order to fulfill the needs of Malaysian skilled workforce.

Keywords: Vocational, post-secondary aspiration, education, curriculum choice
METODOLOGI PENDIDIKAN DALAM AL-QUR’AN ANTARA IDEALISME DAN REALISME: ASAS-ASAS PEMBANGUNAN IMAN

Sayyed Abdul Hamid al-Mahdaly dan Sarinah binti Haji Yahya
Fakulti Usuluddin, Negara Brunei Darussalam
mhd@unissa.edu.bn

ABSTRAK


Kata kunci: metodologi pendidikan al-Qur’an, idealisme, realisme, pembangunan iman, generasi berwawasan
ICE 58

TALAQQI & MUSYAFAHAH, KAEDAH PENGAJARAN DAN PEMBELAJARAN AL-QURAN BERKESAN SEPA NJANG ZAMAN

Awg. Haji Samsul Muawan Haji Shodiq¹, dan Gamal Abdul Nasir Haji Zakaria²
¹Sekolah Menengah Yayasan Sultan Haji Hassanal Bolkiah, Negara Brunei Darussalam
²Institut Pendidikan Sultan Haji Hassanal Bolkiah (SHBIE), Universiti Brunei Darussalam

ABSTRAK


Kata kunci: Kaedah pengajaran dan pembelajaran al-Quran, Talaqqi dan Musyafahah, Berkesan sepanjang zaman.
ICE 59

KATA SERU DALAM AL-QURAN & PENGAPLIKASIANNYA DALAM KONTEKS PENDIDIKAN

Artini Haji Timbang dan Gamal Abdul Nasir Zakaria
Institut Pendidikan Sultan Hassanal Bolkiah,
Universiti Brunei Darussalam

ABSTRAK


Kata Kunci: Kata seru, al-Quran, Aplikasi, Pendidikan
ICE 60

THE INITIAL EXPERIENCES FOR ACCREDITATIONS PROCESS IN THE ART EDUCATION PROGRAM AT SULTAN QABOOS UNIVERSITY, OMAN

Fakhriya Al-Yahyai, Badar Al Mamari, Salman Alhajri, Mohammed Al-Amri
Art Education Department, Sultan Qaboos University (Squ), Oman
fakhriya@squ.edu.om

ABSTRACT

Art Teacher candidates at Sultan Qaboos University (SQU) prepared under the policies of college of education in relation to the policies of national art education curriculum at the Ministry of Education in Oman. The main aim of the Art Education program at SQU is to prepare qualified Art Education Teachers for different pre-university stages and levels within the Basic Education System in Oman. The candidate of this program expiated to teach art education according to the General structure of the art education curriculum in Oman. Since the program started it has been developed over years in order to insure quality education. However, the college of Education have made sequence of changes to all Initial teacher education programs, including the Art Education program, in order to obtain the academic accreditation from National council Accreditation of Teacher Education (NCATE); such as in the criteria for admission programs, programs of study that outlines the courses and experiences required for candidates to complete the program, the field and clinical experiences required for each program, and the assessment tools for each program in light of their specific SPA standards. This research intends to share the initial experiences of Art Education department in preparing for the accreditations process at SQU. The primary purpose of this study is to highlight the progress have been made to Initial program in order to achieve the substantial equivalence from the National Association of School of Art & Design (NASAD).

Keywords: Accreditations process, art education program, admission criteria, field and clinical experiences, key assessment, Sultan Qaboos University, Oman.
THE CURRENT CHALLENGES OF ART EDUCATION BETWEEN SCIENTIFIC KNOWLEDGE AND DIGITAL PRACTICES

Wissem Abdelmoula
Department Of Art Education
Sultan Qaboos University

ABSTRACT

In order to rebuild the university education of the 21st century, teachers and programs must consecrate on other principles spreading over digital innovations: based on knowledge of the arts, the meeting with the works, their authors and interpreters and based on a creative practice of various disciplines in all the cycles of education. The Digital undoubtedly promotes easy access to resources, which is fundamental to generalize an art and cultural education of quality. Also, digital promotes also new forms of involvement of several partners in favor of artistic and cultural education: their achievements can be commented and provide many tools for teaching the history of the arts. In this paper, the researcher will try to investigate the educational and administrative structures on which is based artistic education in three countries: Oman, Tunisia and France by studying them using critical observation methods. This analysis is illustrated by the production of series of case studies demonstrating the variety of approaches of artistic education in each country. As a result, in this research, the researcher outlined series of recommendations to open up new project opportunities in the field of artistic education and its relationship with digital in the future.

Keywords: Art Education, Digital materials, Practicing art,
ABSTRACT

The aim of this study was to develop and validate a Malay version of Chemistry Self Concept questionnaire adapted from Academic Self Concept Questionnaire (ACSQ) (Liu and Wang, 2005) among Malaysia secondary students. 327 Form 4 students from 9 secondary school in Sabah, Malaysia that taking chemistry subject participated in the study. Researcher have translated ACSQ into Malay language through back translation with the help of a panel and modified into domain specific self concept, which is chemistry self concept. Result showed the instrument displayed a good psychometric performance both in terms of reliability and validity. The high internal consistency of the total and subscales of the instrument indicated a high level of homogeneity among items in the scale. Exploratory Factor Analysis (EFA) of the 20 items, generated two factors. It confirmed the two factors structured proposed by Liu and Wang (2005) for academic self concept was same for domain-specific self concept (ie: chemistry self concept). Overall, the Malay version of Chemistry Self Concept questionnaire may enable researchers and teachers to identify chemistry self concept among secondary students in Malaysia. For future research, researcher plan to conduct a confirmatory factor analysis (CFA) to determine whether the data confirmed the model.

Keywords: Chemistry Self Concept, Exploratory Factor Analysis
ABSTRACT

Students’ understanding of the equal symbol is crucial for their making sense of and solving a mathematical equation. Therefore, it is important to investigate students’ understanding of the equal symbol as early as possible in order to prevent confusion and prolonged misconceptions. As mathematics is a highly sequential subject, misunderstanding of the equal symbol can result in students’ difficulties in learning mathematics. In case of pre-service teachers, understanding of the equal symbol greatly influences, not only their learning of mathematics, but also their future teaching practice. This article reports a study conducted to assess pre-service teachers’ understanding of the equal symbol. A set of tasks was administered to 66 students of a primary school teacher training in Banda Aceh, Indonesia. The task was designed to assess the students’ manners of use of the equal symbol. The data was descriptively analyzed. The study shows that students have developed three different instructional meanings in relation to the equal symbol: a cue to work out a problem; a joining symbol to simplify expressions; and as the symbol of equating both sides of an algebraic equation. The information derived from this study can serve as the base for analyzing students’ misconceptions of the equal symbol and exploring better ways to teach the equal symbol.
INVESTIGATING LOWER SECONDARY STUDENTS’ ALGEBRAIC KNOWLEDGE IN SOLVING ALGEBRA PROBLEMS

Ernie Sofinah Matzin & Masitah Shahrill,
Email: 13h0403@ubd.edu.bn
Universiti Brunei Darussalam, Brunei Darussalam
Email: masitah.shahrill@ubd.edu.bn

ABSTRACT

This study investigated the extent to which students understood the algebraic knowledge and concepts in regards to solving algebra problems. The Algebra Achievement Test questions were taken from the Year 6 mathematics syllabus. The achievement test questions were designed to test five different areas of solving algebra problems. Students were tested on their ability to form algebraic expressions, their proficiency of mathematical language used in real-world problems, ability to manipulate algebraic expressions correctly, ability to formulate real-world word problems into algebra equation and consequently solve the algebra equations, and ability to solve given algebraic equations. The study also aimed to identify students’ difficulties and the challenges faced when solving algebra problems between the two year levels, subsequently finding out what are the common error patterns and difficulties that have affected their performance. In total, 159 lower secondary students, comprised of three Year 7 classes and three Year 8 classes, from one government secondary school in Brunei Darussalam participated in the study. The analyses of the students’ results suggested that both the year levels of students have most difficulty in formulating equations when solving word problems, followed by questions that require them to manipulate algebraic expression correctly. Only 23.6% of the Year 7 students and 27.4% of the Year 8 students answered correctly when solving the word problems. In addition, the results also revealed that the lower secondary students’ algebraic concept knowledge and skills are still below par and needs proper interventions to prepare them for their future upper secondary mathematics learning.
STUDENTS’ PERSPECTIVES ON GBL

Nurafizzah Hj Muhd Khairun Nizam
The National University of Malaysia (UKM),
Selangor, Malaysia

ABSTRACT

The study aimed to identify students’ perspectives on game-based learning (GBL). GBL has been made as one of the important methods of teaching and learning in Brunei Darussalam especially with the introduction of SPN21 (The National Education System for the 21st Century). The games include games using geometry board, monopoly board, and blocks and tiles. The first phase of the research involves identifying which schools were using GBL in their teaching and learning. Questionnaires containing 3 factors (advantages, limitations and preferences) were distributed among 200 students in 5 government schools. It was determined that there is a significance found between using GBL method and students’ interest in learning and based on their perspectives, there are benefits and limitations of using GBL in learning math. Aside from that, there is no significance found between students’ perspectives on GBL and gender. The results suggest the need for further research to identify students’ perspectives on other factors which contribute towards the advantages and limitations of using games in learning as well as their perspectives on other games used in learning.

Keywords: teaching and learning
ABSTRACT

Language has been linked to an individual or group social identity. It reflects the different ethnic and cultural background of certain society. It serves as a trademark for every individual and as a basis for the acquisition of needs and desires. Language has been continuously evolving. This paper aims to investigate on the prevailing experiences of Ilocano teachers with regard to English language teaching. It digs deeper into the themes, concepts and reflection of English as part of evolving Ilocano culture. This research was conducted in Lorma Colleges Basic Education Department and the participants were Ilocano teachers who are currently teaching English. Semi-structured questionnaires were used as the research instrument for gathering and gaining authentic and credible information regarding their experiences on English language teaching. Follow-up interviews were conducted in cases where further elaboration and clarification are needed. The researchers also analyzed and interpreted the results gathered to identify the most striking themes that will serve the purpose of the study. Research findings came up with various reflections of teachers in subject-matter, pedagogy, learners and educational contexts that provide the distinct features of Ilocano teacher. Further recommendations were also provided by the researchers.

Keyword: Ilocano, English language, teaching, and culture
ICE 67

AN APPLICATION OF SCHEMA THEORY TO ENHANCE THE LEARNING OF ARABIC LANGUAGE AMONG MALAY LANGUAGE SPEAKERS

Gamal Abdul Nasir Zakariya¹ & Ahmad Labeeb Tajudeen¹
¹Sultan Hassanal Bolkiah Institute of Education
University Of Brunei Darussalam

ABSTRACT

The new education policy in Brunei Darussalam on Arabic language has posed serious challenges to educators to elevate Arabic language learning beyond its archaic traditional level, and to device new pedagogies to make the language easier to learn by all and sundry. The purpose of this study is to present a practical pedagogical framework for applying schema theory to the teaching of Arabic language for Malay language speaking learners. Although many Malay language speakers believe Arabic language is difficult to learn, drawing on schema theory, this study aims to prove that Malay learners can arguably read certain Arabic phrases and sentences by mere scaffolding, without been taught. It is an attempt to draw attentions of Arabic language teachers to the way they can benefit from contrastive analysis studies and the practical way of incorporating the outcome of such studies into their classroom practices. The study further suggests the need for rigorous professional training of Arabic language teachers in Brunei in order to achieve the making of Negara zikir (a God remembering nation).

Keywords policy, learning, traditional level
ABSTRAK


ABSTRACT

Research on classroom learning environment has spanned over the last three decades or so, which resulted in the development of several instruments (questionnaires) to assess specific nature of learning environments and their effects on students’ learning. One instrument which has been widely used in recent classroom learning environment research, including this present study is known as ‘What is happening in this classroom (WIHIC)’ questionnaire. This is a case study and an action research in nature, involving intervention and the use of interactive games to create conducive learning environment for Year-7 science learning. A total of 24 students were involved in the study and the data collected were analysed using both qualitative and quantitative approaches. The findings of this study showed that prior to intervention, two major dimensions of classroom learning environment needed improvement: involvement and investigation. The intervention strategy to improve those two dimensions of classroom learning was using educational games of “Too fast Too Furious – Building Car Model” to teach students the topic related to “force.” The use of such educational games was found to improve the two dimensions of classroom learning environment as well as on other aspects of learning. The implications of the study are important to other science teachers in order to improve their teaching.

Key words: learning environment, WIHIC, involvement, investigation, educational games.
THE EFFECTIVENESS OF CONFLICT MAP BASED ON CONCEPTUAL CHANGE MODEL TO OVERCOME STUDENTS’ MISCONCEPTIONS IN THE TOPIC OF FORCE AND GRAVITY

Jennifer Tiansin¹ & Lay Yoon Fah ²,
¹ SM Shan Tao (CF), Kota Kinabalu, Sabah
  j.tiansin1101@gmail.com
²Faculty of Psychology and Education, Universiti Malaysia Sabah
  layyoonfah@yahoo.com.my

ABSTRACT

Students enter a Physics class bringing with them some preconceptions which were built through their own experiences and interactions with their surrounding environment prior to the formal lesson. Such preconceptions, also called misconceptions, naïve conceptions, alternative conceptions, or conceptual misunderstandings, are often times incompatible with the established scientific theories. Misconceptions may give serious impact on students’ learning and hinder the students from learning more advanced concepts. As students continue to build up knowledge, they might be trapped in their own misconception. Previous studies shown that traditional learning strategies do not challenge students’ misconception. Various studies have found that misconceptions in the topic of force and gravity were strongly held by many students in secondary schools as well as in universities and colleges. The ultimate goal for this research is to identify the misconceptions in force and gravity held by secondary school students and the effectiveness of using conflict map based on conceptual change model to overcome students’ misconceptions in the topic of force and gravity. Quasi-experimental research method was chosen for the investigation. The instrument used in this study probed students’ misconception in total net force, forces in parabolic path, presence or absence of gravity in five different situations and imbalance of forces. Pre-test and post-test were administrated to the secondary school students and the data were analysed using paired sample and independent sample t-test. The results of this study will provide a better picture about the effectiveness of the use of conflict map in overcoming students’ misconceptions in the topic of force and gravity.

Keywords: Conflict map; conceptual change model; misconceptions; force and gravity
ABSTRACT

There is extensive research showing that students with more positive attitudes toward mathematics and science have higher average achievement in mathematics and science. For example, a recent meta-analysis of student attitudes toward school found that attitudes toward mathematics or science were related to mathematics and science achievement across 288 studies. TIMSS routinely presents very powerful evidence showing that within countries students with more positive attitudes toward science have substantially higher achievement, and the results from TIMSS 2011 are consistent with previous assessments. Students’ interest in and liking of learning science, students’ attitudes about the importance of the subject and usefulness of the subject (attainment value and utility value), and students’ self-confidence or self-concept in their ability to learn science were measured. Overall, students with positive attitudes toward science have higher achievement, but these attitudes deteriorate over time. Internationally, by the eighth grade, fewer students like learning science and feel confident in their abilities (compared to the fourth grade). The ultimate goal of this study is to investigate the contribution of attitudes toward science towards the achievement in science among Malaysian and Singaporean eighth-graders. Data will be obtained from 5,733 Malaysian students and 5,927 Singaporean students who participated in the TIMSS 2011. This study will provide high quality information on Malaysian and Singaporean student achievement outcomes in science and the educational contexts (the educational systems, the organisation, curricula, resources, and instructional practices) in which student achieve.

Keywords: Attitudes toward science, science achievement, TIMSS
KAJIAN PERMASALAHAN YANG DIHADAPI OLEH PELAJAR-PELAJAR TINGKATAN EMPAT DI SEKOLAH MENENGAH DAERAH BRUNEI MUARA BERASARKAN SENARAI SEMAK MOONEY

*Azrina Binti Abdul Latif*, Azizi Yahaya, Gooh Mo Lee, Halimah Ma’alip, Dk Hasimah Binti Pg Haji Hashim – Mrs-104@Hotmail.Com, Norata Binti Haji Shamsuddin, Nor233@Gmail.Com

1 SHBIE, Universiti Brunei Darussalam
2 Fakulti Pendidikan, Universiti Kebangsaan Malaysia
Akademik Bahasa, Universiti Teknologi Malaysia

ABSTRAK

Dalam kajian ini penyelidik ingin melihat permasalahan yang paling utama, pencapaian akademik pelajar dalam SPE serta mengenal pasti perbezaan permasalahan yang dihadapi berdasarkan demografi pelajar. Kajian dilakukan ke atas 60 orang responden menggunakan soal selidik yang diterjemah daripada MPCL yang dibahagikan kepada dua bahagian. Bahagian A melibatkan demografi pelajar dan bahagian B melibatkan maklum balas pelajar terhadap elemen permasalahan. Maklum balas yang diterima dianalisis menggunakan perisian SPSS versi 22.0. Statistik deskriptif seperti frekuensi, peratus, min dan sisihan piawai dan statistik inferensi seperti ujian-t telah digunakan dalam kajian ini. Nilai kebolehpercayaan Alpha Cronbach adalah $\alpha=0.636$. Hasil kajian menunjukkan permasalahan yang dihadapi oleh pelajar-pelajar di sekolah menengah daerah Brunei Muara berada pada tahap sederhana (min=2.41). Permasalahan akademik dan kerjaya merupakan permasalahan yang paling utama (min=3.97) serta tidak terdapat perbezaan permasalahan pelajar mengikut jantina, bangsa dan lokasi sekolah kecuali terdapat perbezaan permasalahan agama/moral mengikut bangsa (p=0.01<$\alpha=0.05$) dan terdapat perbezaan permasalahan persekolahan yang dihadapi oleh pelajar-pelajar yang dikaji mengikut jantina (p=0.004<$\alpha=0.005$) dan lokasi sekolah (p=0.002<$\alpha=0.50$). Ini bermakna pelajar-pelajar tingkatan empat di sekolah menengah daerah Brunei Muara perlu dibantu bagi mengurangkan permasalahan akademik dan kerjaya, serta tumpuan boleh diberi bagi permasalahan agama/moral mengikut bangsa dan persekolahan mengikut lokasi sekolah.

Kata kunci – permasalahan akademik dan kerjaya pelajar
INDEKS PERLAKUAN BULI DI SEKOLAH MENENGAH PENGIRAN ANAK PUTERI HAJAH RASHIDAH SA’ADATUL BOLKIAH, LUMUT, BELAIT

Nordin Aiman, Azizi Yahaya¹, Gooh Mo Lee², Salwa Mahalle¹, Huzaimi Matsani¹, Mohamad Effendi Haji Medan¹, Halimah Maalip³
¹Institut Pendidikan Sultan Hassanal Bolkiah, Universiti Brunei Darussalam
²Fakulti Pendidikan, Universiti Kebangsaan Malaysia
³Akademik Bahasa, Universiti Teknologi Malaysia

ABSTRAK


Kata kunci: Indeks Buli, Pelakuan Buli, Punca Buli
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COOKING PRACTICES IN VOCATIONAL REHABILITATION CENTRES PROBATION TEENS IN MALAYSIA

Ahmad bin Esa
Zalina@Siti Aishah Abd Aziz
Universiti Tun Hussein Onn Malaysia
Jasлина Jamaludin
SMK Datuk Menteri, Ayer Hitam

ABSTRACT

Each individual duly given a second chance after committing the offense. Thus, in Malaysia Reformatory Centres Youth (PPAR) introduced the Vocational Training Program cuisine. The program provides an opportunity for trainees to obtain employment after completion of training either as entrepreneurs or working as a cook. However, there are coaches who did not master the cooking skills after completion of the training is supposed to emanate from culinary training practices that are less comprehensive and systematic. Therefore, a study was carried out to practice vocational training in PPAR in Malaysian cuisine. The design of descriptive type of research is the study sample surveys. The instrument used was a questionnaire and interview protocol. Data were analyzed using SPSS version 16 to obtain the mean and standard deviation were used for data analysis qualitative themes. The findings showed that the overall level of vocational training practices in PPAR, Malaysia is good. However there are some practices that need to be repaired as instructors should teach culinary training using the manual brew.

Keywords: Vocational Training cuisine, Moral Rehabilitation Centre, Youth Coach
THE QUR’ĀN AS A SOURCE OF FRAMEWORK FOR SPIRITUAL VALUES IN
SCIENCE EDUCATION.

Awang Mohammad Hilmy Baihaqy bin Hj Awg Yussof (SOASCIS-UBD)
Osman Bakar (SOASCIS-UBD)

ABSTRACT

In this modern world, science education is one of the important subjects that must be taught in the educational system. In a broader sense, science may be seen as the systematic study of nature which includes the interaction between humans and their environment (Ishmael Kwesi Anderson, 2006). There is no doubt that the role of science in modern society is changing. Many of the challenges that mankind is facing right now have to do with science and its solutions partly depend on it (Gluckman, 2011). A good science education is therefore needed. However, due to the secularization of knowledge in general and science in particular, contemporary science education tends to be “value free,” that is to say, divorced from spiritual values. In the case of Muslim societies it is very important to conceive science within the framework of spiritual values contained in the Qur’ān (Osman Bakar, 2008). Muslim scientists and technologists have for centuries pursued their scientific and technological activities within a spiritual and ethical framework (Osman Bakar, 2014). There was a profound reason for their insistence on such a framework since they believed in an epistemology in which unity of science and spiritual knowledge was duly maintained. Traditional Muslim scientists and technologists generally embraced the essentially God-centric world-view dictated by the Qur’ān. This world-view argues that reality is not limited to the world of sensory experience but rather extends to the metaphysical experience. This paper will discuss the role of the Qur’ān as a source of framework for spiritual values in science education. Such a framework can help science students to develop their minds and scientific talents holistically.

Keywords: Science education, environment, socialization
ABSTRACT

This paper explores some initial thoughts on the pedagogy of science based on the principle of Tawḥīd (unity). The paper seeks to answer the question: What type of scientific minds do we want to develop in students of science? In answering this question, the paper introduces the concept of science as the study of the world of nature. Nature here is understood as the open book of God, ready to be explored by the human mind. The paper argues that nature is not just studied as an end in itself but as an object of knowledge that contains useful spiritual and symbolic messages. These messages are invaluable lessons about values for human beings. The spiritual and symbolic messages are often not grasped by the contemporary mind because it understands nature only as a quantitative domain of empirical facts and entities. This shows that 21st century science curriculum is missing a major component in its attempt to develop holistic scientific minds of the future. This paper proposes that a possible way of developing this holistic intellectual frame of mind in students of science is through the explicit teaching of some of the spiritual and symbolic messages of nature. For example, the values of harmony and beauty that exist in the plant and animal kingdom with the corresponding moral lessons can be taught and discussed with students in a science classroom. This paper will provide some illustrations of harmony and beauty delineated by Ibn Sīnā (d. 1037 CE) and Fakhr al-Dīn al-Rāzī (d. 1209 CE) in the world of nature that can be used by science teachers in their teaching. The paper concludes with some recommendations on how these values can be infused into contemporary science curriculum.
DESIGNING CURRICULUM FOR TEACHING ARABIC LANGUAGE BY CLIL APPROACH: AN INTEGRATION OF FORWARD, CENTRAL AND BACKWARD DESIGNS

Ahmad Labeeb Tajudeen¹ & Gamal Abdul Nasir Zakariya¹
¹sultan Hassanal Bolkiah Institute Of Education
University Of Brunei Darussalam

ABSTRACT

Content and language integrated learning, CLIL, is an approach whereby the learning of second or foreign language is integrated with the learning of the content of a specific module, course or subject. In recent times, there has been emphasis on the use of content of Qur'an for teaching Arabic language (Al-Keesh, 1992; Hasuun, 2002; Khateeb and Rajab, 2009; Tua'mah, 1992). Tajudeen (2014) suggested an integrated and symbiotic learning both of Qur'an content and Arabic language using 4C's CLIL model, and stressed the need to design curriculum for this purpose for its effective application in the classroom. Richard (2013) classified the designs of language curriculum under three major approaches: forward, central and backward designs (p. 6). The purpose of this paper is to present a theoretical framework for designing a curriculum for teaching Arabic language by 4C's CLIL model using Qur'an as a content, as a practical way of integrating forward, central and backward language curriculum designs.

Keywords: integrated learning, language, curriculum
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MUFRADAT BUKU TEKS AL ‘ARABIYAH AL ITTISHOLIYAH;
SATU KAJIAN ANALISIS

Rojja Pebrian
Dr Gamal Abdul Nasir Zakaria
rojjap@yahoo.com
gamal.zakaria@ubd.edu.bn
Sultan Hassanal Bolkiah Institute Of Education, Universiti Brunei Darussalam

ABSTRAK

Buku teks merupakan salah satu faktor penting bagi menentukan keberkesanan aktiviti pengajaran dan pembelajaran dan seterusnya memastikan kejayaan sesuatu matlamat pendidikan. Dalam kajian ini penulis akan menganalisis mufradat yang terkandung di dalam buku teks bahasa arab Al ‘Arabiyyah Al Ittisholiyah untuk peringkat sekolah-sekolah Menengah di Brunei Darussalam. Kajian akan difokuskan kepada buku teks untuk tahun tujuh sahaja. Metode yang digunakan untuk kajian ini adalah metode kualitatif dengan pendekatan analisis isi yang dibuat berdasarkan tujuh kriteria yang dicadangkan Rusydi Ahmad To’aimah dalam analisis dan penilaian mufradat buku teks bahasa Arab, iaitu: jumlah mufradat buku teks, jumlah mufradat baru dalam setiap pelajaran, tempat penyajian mufradat, cara penyajian mufradat, jenis mufradat, latihan mufradat baru dan persamaan dan lawan kata. Adalah diharapkan agar dapatan kajian ini akan memberikan gambaran bagaimana mufradat didedahkan di dalam kitab ini, dan berdasarkan analisis yang dibuat diharapkan dapatan kajian ini akan membantu pihak yang berkepentingan iaitu Kementerian Pendidikan, penulis buku teks, guru-guru dan para pelajar sendiri dalam usaha memahami dan menguasai buku teks ini khususnya dan meningkatkan pencapaian bahasa Arab secara amnya.

Kata kunci: Mufradat, buku teks, analisis.
ABSTRAK


Kata kunci : Perlaksanaan, Sistem Pengajaran, Kategori Jim dan Dal
SEJAUHMANA KEFAHAMAN PEL AJAR TERHADAP KONSEP PEMAKANAN HALAL DI SEKOLAH MENENGAH NEGARA BRUNEI DARUSSALAM: SATU KAJIAN AWAL

Norwidayawati Metusin, Gamal Abdul Nasir Zakaria, Shamsinar Hussain
norwidaya_metusin@hotmail.com
Institut Pendidikan Sultan Hassanal Bolkiah,
Universiti Brunei Darussalam

ABSTRAK

Pemakanan halal boleh mempengaruhi fizikal, mental dan keperibadian seseorang. Oleh itu, sebagai kajian awal, pengkaji hanya menyentuh mengenai pemakanan halal dari segi kefahaman pelajar. Fokus kajian akan dikhaskan kepada pelajar sekolah menengah sahaja berdasarkan peringkat umur mereka inilah waktu yang paling penting di dalam menerapkan pendidikan kepada mereka. Beberapa aspek penting dibincangkan termasuklah kefahaman pelajar mengenai halal haram dari aspek syarak, aspek kesihatan, aspek peribadatan dan aspek pendidikan. Dalam kajian awal, pengkaji hanya membuat temu bual terhadap beberapa orang pelajar di salah sebuah sekolah menengah. Berdasarkan temu bual tersebut, pelbagai respon yang positif diberikan oleh pelajar yang menunjukkan kefahaman yang sederhana. Di akhir kajian, pengkaji memberi cadangan untuk meningkatkan kefahaman pelajar terhadap konsep pemakanan halal.

Kata kunci: Konsep Pemakanan Halal, Kefahaman Pelajar Sekolah Menengah
ABSTRAK

Satu kajian kuasi-eksperimen telah dilaksanakan untuk mengenal pasti perbezaan signifikan skor min pencapaian kefahaman antara kumpulan eksperimen dan kawalan dalam ujian prakajian dan ujian pascakajian. Kajian ini dijalankan kepada murid tahun 5 di salah sebuah sekolah rendah di Daerah Brunei dan Muara. Dalam kajian ini, kumpulan eksperimen seramai 27 orang telah didedahkan dengan strategi pengajaran Reciprocal. Manakala, kumpulan kawalan seramai 27 orang telah didedahkan dengan pengajaran konvensional. Data-data dianalisis dengan menggunakan Perisian Statistical Package for Sosial Sciences (SPSS) versi 20. Hasil dapatan menunjukkan tidak terdapat perbezaan yang signifikan antara skor min pencapaian bagi kedua kumpulan dalam ujian prakajian dengan nilai $t (54) = 0.29$, $p>0.05$ ($p=0.77$). Walau bagaimanapun, terdapat perbezaan skor min bagi kedua-dua kumpulan dalam ujian pasca kajian dengan nilai- $t (54) = 3.88$, $p < 0.05$ ($p = 0.00$).

Kata Kunci: bacaan dan kefahaman, strategi pengajaran Reciprocal, kuasi-eksperimen.
Kajian ini bertujuan untuk meneroka teknik Directed Reading Thinking Activity (DRTA) dalam meningkatkan pencapaian kefahaman pelajar Tahun 7 di salah sebuah sekolah menengah di daerah Brunei dan Muara, Negara Brunei Darussalam. Kajian ini menggunakan reka bentuk kajian tindakan. Kajian ini melibatkan 14 orang pelajar tahun 7 bertahap sederhana. Masalah utama pelajar yang diuji ialah pelajar menghadapi kesukaran dalam memahami petikan teks fahaman dan ini memberikan impak negatif terhadap pencapaian kefahaman mereka. Hasil kajian dianalisis menggunakan ujian-berpasangan untuk menilai sama ada terdapat perbezaan yang signifikan bagi skor min dalam pencapaian ujian prakajian dan ujian pascakajian pelajar. Hasil dapatan menunjukkan bahawa terdapat perbezaan skor min dalam pencapaian ujian prakajian dan ujian pascakajian, $t (14) = -6.79, p < .005$. Oleh yang demikian, secara keseluruhannya kajian terhadap teknik DRTA ini membuktikan bahawa teknik ini dapat meningkatkan pencapaian pelajar dalam bacaan dan kefahaman.

Kata Kunci: Bacaan dan Kefahaman, Directed Reading Thinking Activity, Petikan Naratif, The Role Of Journal Writing In Developing Competencies In Communication
ABSTRAK

Kemahiran membaca merupakan kemahiran asas dan aktiviti penting dalam kehidupan manusia. Kajian ini bertujuan untuk mengenal pasti korelasi persepsi pelajar tahun 7, tahun 8 dan tahun 9 terhadap motivasi membaca mereka dengan tahap persekolahan mereka. Kajian ini akan dijalankan dengan menggunakan pendekatan kuantitatif dan soal selidik sebagai instrumen kajian. Sampel kajian ini melibatkan seramai 180 orang pelajar yang terdiri daripada pelajar tahun 7, tahun 8 dan tahun 9 di salah sebuah sekolah menengah di Bandar Seri Begawan. Data-data dianalisis dengan menggunakan Perisian Statistical Package for Social Sciences (SPSS) versi 20. Dapatan kajian korelasi Pearson digunakan untuk mengetahui korelasi antara setiap kategori dengan tahap persekolahan pelajar. Nilai pekali korelasi Pearson bagi tahun 7 ialah r= 0.84 dengan aras signifikan 0.00 (p < 0.01), bagi tahun 8 ialah r= 0.73 dengan aras signifikan 0.00 (p < 0.01) dan bagi tahun 9 ialah r= 0.53 dengan aras signifikan 0.37 (p>0.01). Ini menunjukkan terdapatnya hubungan yang signifikan di antara motivasi membaca dengan tahap persekolahan pelajar.

Kata Kunci: Motivasi membaca, sekolah menengah, kuantitatif, soal selidik
Countries across the world are attempting to make a pedagogical paradigm shift in science teaching and learning from teacher-centred to inquiry-based approaches, and at the same time implement context-based, student-centred and constructivist approaches in science classrooms to not only more effectively develop the thinking and understanding of students but also develop the key skills required in the workforce of the 21st Century. Such a significant pedagogical and cultural change in classrooms requires ownership of change; active participation of all; country wide capacity building; continuing professional development (CPD) and the development of comprehensive teaching resources to support effective classroom implementation and embedding. To support and facilitate these changes in Brunei the Ministry of Education has developed the IBSE Brunei project. The aims of the project have been to firstly develop a core group of 60 Year 4 to 9 science teachers and Ministry officers as core trainers able to write innovative teaching resources that effectively put into practice context-based teaching and learning, and inquiry-based teaching and learning through a 7E constructivist learning model. Secondly develop comprehensive sets of teaching resources to support the teaching and learning of the Year 4 - 9 (upper primary and lower secondary) curriculum that are organised into units of work relating to part of the science curriculum, with each unit composing learning episodes that include: PowerPoints, Video clips, Student Sheets, and Teacher's Guides, all freely available on the project website. Thirdly disseminate and embed the teaching resources across all 6 education clusters of the country through CPD carried out by the core trainers, involving face to face training of teachers and follow-up school-based support through reflective partners and action research strategies in schools across each education cluster. Finally develop the scientific capability, team working, problem solving, communication, leadership, ICT and thinking skills of students across the country through the use of the teaching and learning practices and resources. This paper will not only outline the philosophies and models underpinning the project, but also the outcomes of the evaluation of classroom implementation that has identified challenges and successes and influenced the continued development of all the project components.
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ASSESSMENT ON THE CURRENT PROFILE OF THE EARLIER FACULTY TO THEIR PROFESSIONAL DEVELOPMENT AND SKILLS-BASED COURSES RELATED TO LEARN: BASIS FOR FACULTY ACADEMIC AND SKILLS DEVELOPMENT PLAN

Eriberto R. Astorga, Jr.\textsuperscript{A}, Herbert D. Vertucio\textsuperscript{a}, Evelyn M. Polison\textsuperscript{b}, Editha S. Magsino, Gloria T. Miano

\textsuperscript{A}Eulogio “Amang” Rodriguez Institute of Science and Technology
Nagtahan, Sampaloc, Manila, Philippines, ertagfa@yahoo.com

\textsuperscript{A}Arellano University, 2600 Legarda St. Manila, Philippines, tucio@yahoo.com

\textsuperscript{B}Eulogio “Amang” Rodriguez Institute of Science and Technology
Nagtahan, Sampaloc, Manila, Philippines, vanessaclaire7169@yahoo.com

ABSTRACT

Education is a nonstop course of action. Professors are gradually inclined with continuous path and direction of quality education that give emphasis on their career or field of specialization. The specialize education which lead as strong foundation in building good servant of education. In the light of quality education it is necessary for the professional practitioners to develop about other field that enhances their capability to hone quality education. It is more practical and conducive about knowing the Professional development and Skills-based courses related to learn. This concern shows that continuity of learning occur for the professional practitioners aligned to education. It guarantees additional inputs and outputs that help them to become effective and efficient in terms of teaching-learning process and highly recognize as influential and professionally acclaimed educators. With this, it is necessary for their training ground about syllabi-making, module preparation, e-learning, research development, methods and teaching strategies, rubrics making, personality development, gender and development program, test construction, professional ethics, leadership and outcome-based education. This seminar related aspect of professional development of the educational practitioners highlights and enliven the competitive manner of developing more reliable and efficient teaching measurement. On the other hand, it is also intensified through collaborative learning process. As such, skills-based courses related to learn is sustainable for growth and development of the field of teaching. Through the establishment of other courses related to learn, it generally allocates the best criteria of education of uplifting its practical and quality aspects. This study also priority the sustainable seminars about book keeping, I.T. skills, legal transcriptionist, computer secretarial, practical nursing, HRM-related course, finishing course for call center, tour guiding, performing arts, entrepreneurial management, community assessment and the like. These skills courses justify development of the educational practitioner’s that encompasses high degree of education. Meanwhile, it creates a broad and clear aspect that education is within and collaboratively related with one another.

Keywords: e-learning, research development, Skills-Based and personalities
SCHOOL LEADERSHIP PROGRAMME: A GAP ANALYSIS

Dr. Shamsiah Zuraini Kanchanawati Hj Tajuddin
shamsiah.tajuddin@ubd.edu.bn

ABSTRACT

Brunei Ministry of Education reviewed its education system and implemented the new “Sistem Pendidikan Negara Abad ke-21 (SPN 21)” or “National Education System for the 21st Century” in 2009. The SPN 21 is aimed at improving schools and student achievement across Brunei’s schools. As a result, at the school level, teachers and students have been profoundly affected by these changes. School leader’s role is seen as critical in providing leadership for these changes to be implemented and adapted successfully to improve students’ achievement. The implications of their leadership will strengthen students’ foundation in literacy and numeracy, which, in turn, will serve as the basis for higher-level knowledge acquisition in the future. The purpose of this study was to identify the causes of School Leadership Programme graduates’ current lack of leadership proficiency using the gap analysis problem-solving framework (Clark & Estes, 2008. A mixed method approached was used to collect data, in which 82 public elementary school leaders completed a survey, six of these school leaders participated in a structured interviews. In addition, relevant documents on the School Leadership Programme were also analyzed as part of a document review. Through the process of triangulation, the study’s findings indicate that there is a gap in school leaders’ conceptual knowledge, motivation to continue and sustain projects after graduating from the programme and organizational gap in engaging active involvement, guidance and support from their District Supervising Officers. Through this study, solutions to close the validated causes were developed.
DOES PROBLEM-BASED INFORMED TEACHING IMPROVE STUDENTS’ SOCIOLOGICAL IMAGINATION?

Nurul Hadina Haji Alias
Sultan Hassanal Bolkiah Institute Of Education.

ABSTRACT

This research examines the role of problem-based learning (PBL) in enhancing students’ sociological imagination (SI) in Brunei. As supporting constructivist instructional principles, problem-based learning as a teaching strategy can be used a framework to improve students’ learning in Sociology through self-directedness, collaboration and critical thinking. In turn, students’ sociological imagination is enriched through the process of problem-based learning. Thus, by examining the ways in which PBL can be implemented in the context of AS Level Sociology and investigating how students establish their sociological imagination, this research purports to argue that PBL is useful in improving students’ SI. Data produced has shown that problem-based informed teaching in Brunei has served many constructivist purposes especially in enhancing students’ ability in critical thinking. The most important role in problem-based learning rests on the facilitator who constantly reflects upon his/her practices in the classroom. The action research thus enables facilitators to react according to the learning issues experienced by the students thereby improving the next cycle of implementation. Furthermore, it has been noted that a process of dialogue is also another important foundation for problem-based learning to achieve its goals. In conclusion, in order for problem-based informed teaching in Brunei to be successfully implemented, it is suggested that the educator places high values on the role of the facilitator by encouraging them to engage in constant reflective practice and dialogue throughout its process.

Keywords: constructivist instructional principles, problem-based learning as a teaching strateg
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‘ANY QUESTION?’ AN INITIAL INVESTIGATION INTO STUDENTS’ QUESTIONS AND THEIR ARGUMENTATIVE WRITING SKILLS.

Shim Sheau Huei
Smsa,Kb, Ministry Of Education
Brunei Darussalam

ABSTRACT

A piece of good Brunei Cambridge General Certificate of education (BGCE) Advanced Subsidiary (AS) Level General Paper (GP) essay can be characterized by the depth of the discussion the student is able to engage in the argumentative writing. Based on the hypothesis that good quality questions could lead to better argumentative, this study was an initial investigation into the quality of questions asked by a group pre-university students from a sixth Form Centre in Brunei. The mix-method approach employed by the study provided a quantitative facet supported by qualitative findings. The sample comprised of sixteen purposively selected students. The students were tasked with reading a short current news article in class as part of the study design. The task of reading was carried out in two occasions, a week apart, using the same news article. In each occasion, after the reading task, the students were asked to generate questions based on the news article. They were also asked to write an after-thought of the news article. The questions were tabulated, colour-coded and analysed together with the after-thoughts. The statistical results of the study revealed in both occasions, the quality of the questions asked did not differ significantly. The students consistently asked low-level questions. However, from the after-thoughts, it was uncovered that there were some good quality comments made by the students. This study is still work-in-progress with the intention to explore more refined focusses related to this area of study
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USING PRODUCTIVE QUESTIONS MODEL CARD TO IMPROVE THE STUDENT’S ABILITY TO ASK PRODUCTIVE QUESTIONS

A.N. Rusmana
Department of Biology Education, Faculty of Mathematic and Science Education
Indonesia University of Education
ai.nurlaelasari.r@student.upi.edu

ABSTRACT

Scientific skills is the main point of science learning. One of basic scientific skills is asking a questions skill. In science learning, the student have to pushed to deliver productive questions in order to they could develop their scientific skill. The objectives of this research were to enhance the student’s ability to ask productive questions by using productive questions model card in the science learning. The research used true experimental research design with posttest only control group design. The population in this study were all student in grade 7 of 1st Sariwangi Junior High School as many as 145 people and sample as many as 48 people. Sample was taken by cluster random sampling technique. Sample consist of two class. One clas is experimental class which use productive questions model card in their learning and the other class is control class without any treatment. The research concluded that there is a difference in the average number of productive questions between experimental class and control class. The mean of productive questions that delivered by experimental class student is 2.52 meanwhile the mean of productive questions in the control class is 0.3. From the results of this research we know that student’s ability to ask productive questions in experimental class is better than the student’s ability in control class. So, using productive questions model card in science learning is recommended.

Keywords : scientific skills, science learning, productive questions model card, experimental research
ABSTRACT

This paper describes the research done over five years on the effectiveness on journal writing with secondary students in Brunei secondary schools. A systematic approach was designed and written by Linda Galbraith in collaboration with Dr Greg Keaney and first published in Brunei by CfBT in 2009. It was titled “Babble On” and following on from the success of the initial project the journal was developed further. Detailed analysis of student writing has been done until 2014. In particular the research focused on the reflections made by students about their use of English language. The research findings covered several areas. It looked at the topics students enjoyed most and those they found most difficult and why. It considered the content of the journal entries. It also analysed the students’ reflections on their writing skills. The research considered the implications for creative writing under examination conditions such as the O-level English language paper. The journal provided a model for students. Later developments went beyond the model enabling students to use the skills already gained in being able to write a structured response to abstract topics. In the 21st Century with a focus on internet communication, journal writing, in particular reflection, is a necessary skill for effective communication and for self awareness about expressing ideas and thoughts clearly. The journal is a communicative form of writing and is not corrected for grammar and spelling but is responded to by the reader with emoticons and a comment to each entry. There are a number of implications for teachers and students in using journal writing as an effective communication tool in the target language at both professional and personal levels.

Key words: journal writing, effective communication skills, reflection, writing processes.
A DIFFERENT ANGLE TO PERSONALIZED LEARNING TECHNOLOGY: AN ISLAMIC PERSPECTIVE

Noraisikin Sabani, UBD
SHBIE, Universiti Brunei Darussalam

ABSTRACT

Personalized learning is not an alien term to the traditional Western educational system, although it was relatively geared for the elites, due to the cost incurred. These are the privileged ones, as Bloom’s research indicated that students who have had the opportunity to have face to face tutoring outperformed students of conventional methods by 98 percent. This effect was known as the 2 sigma problem. Reorienting to our current needs, learning technology gained immense popularity due to its mass availability. As the number of digital native grows, so is the demand for cybernated learning approaches. However, many learning technology components do not cater to the different needs of the students, including their varied academic styles and backgrounds. Many of these products uses one-size-fits-all approach, necessitating students to undergo the set activities, learn the prescribed content and complete specific assessments at a given time period. Current technological learning platforms, including MOOC, however, are slightly diversified as it becomes an open course for anyone to enrol at any given time. Nonetheless, the style of presentations and students’ academic backgrounds are not justly considered while designing these courses. On a different learning sphere, Islamic Pedagogy was initiated by Prophet Muhammad (PBUH). The tradition continued in multiple Islamic regions and offered in different Islamic institutions, until the mass usage of print technology at around 200 years ago. While the number of institutions practicing this pedagogy lessens, researches have proven that one of the unique feature of Islamic Pedagogy lie in its personalized learning approach towards the students. Students are given freedom to study at one’s own pace and focus on mastery learning. In addition, when the system is applied correctly, these students will eventually embody their learning through the recitation, memorization and practice of Qur’anic teachings in their daily lives. Realizing the importance of reviving the elements of personalized learning and Islamic Pedagogy, this paper aims to discuss the literature review on the possibilities of implementing personalized learning technology to learners who wishes to venture, in their pursue to study the Noble Qur’an.
ABSTRACT

This was a case study aimed to investigate the effect of using an active learning strategy, POE (Predict, Observe and Explain) on students’ perception of their learning environment and their achievement in Year-8 science lessons in a government secondary school in Brunei Darussalam. The students’ perception of learning environment was assessed using an established classroom learning environment questionnaire called WIHIC (What is Happening in this Class). The study involved a class of 19 students (8 males and 11 females). Pre- and post-test were carried out to assess students’ achievement before and after intervention (POE lessons). There were three important findings from this study: First, the students perceived their POE classroom learning environment as being more positive, particularly on the dimension of “involvement” and “investigation” with the mean scores of 4.53 and 3.82 respectively; second, there was no significant difference between males and females students’ perceptions of their POE learning environment; and third, POE teaching strategy had a positive impact on students’ overall understanding of the science topic taught. In conclusion, this study has teaching implications and science teachers should take cognizance of the findings.
ABSTRACT

The technical and vocational education and training (TVET) system in Brunei Darussalam is currently undergoing major restructuring, with the establishment of the Institute of Brunei Technical Education (IBTE) and launch of the ‘White Paper’ on transformation of TVET in May 2014. One of the aims of the reform is to ensure graduates are job-ready and highly employable, by shifting from being a supply-driven to a demand-driven system. In TVET worldwide, we have seen an increased interest in evidence-based policy making in recent years and the use of valid and robust evaluation and monitoring instruments and indicators. Following this, and to assist the national TVET system transformation, two key performance indicators (KPIs) have been identified to assess the efficiency and effectiveness of the reform and the TVET system. The first KPI focused on the ‘employability rate’ of graduates after undergoing the TVET system, while the second KPI looked at employers’ level of satisfaction of graduates hired. This paper reports on a pilot tracer study (ES) and employers’ satisfaction survey (ESS) carried out by the Research and Development division of IBTE. With response rates of 98% for ES and 30% for ESS, and based on the descriptive data presented, we found that (1) for ES, employability rate of our graduates are below the targeted KPI, at 63.7%; and (2) for ESS, employers’ satisfaction level met the targeted KPI, at 96.5%. By drawing upon these outcomes, we shared the experience in developing and executing the surveys, and identified some of the challenges faced and made several recommendations.
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AN INVESTIGATION ON THE USE OF STUDENT TEAM-ACHIEVEMENT DIVISION (STAD) IN A DIPLOMA IN CONSTRUCTION COURSE

Wei Keh Chin (Weikeh.chin@moe.gov.bn) and Nazihah Ismail (nazihah.ismail@moe.gov.bn). Sultan Hassanal Bolkiah Institute of Education (SHBIE), Universiti Brunei Darussalam BE1410, Negara Brunei Darussalam

ABSTRACT

After the introduction of SPN-21, active learning has attracted a great deal of academic interest in Brunei Darussalam. This is due to its many benefits such as enhanced learning, motivation, and peer relation. Students Team-Achievement Division (STAD) also contributes in active learning. STAD is a cooperative learning strategy whereby a small group of learners with different abilities work together in completing a shared learning goal. There are two main aims of this research. The first aim is to determine whether STAD can enhance students’ learning, while the second aim is to find out the students’ attitudes towards cooperative learning. The attitude and behaviour of students were examined to check if cooperative learning brings negative impacts to students in Asian countries due to cultural reasons as documented in certain journals. Two classes are involved in this study. One class is set as the STAD group, while the other class is set as the conventional group. This is to determine whether the intervention, i.e. the use of STAD, has any effect on the academic achievement of students. In contrast, the traditional teaching method was used for the conventional group. Attitude questionnaires were distributed to both groups at end of the intervention to find out their attitudes towards cooperative learning. Individual t-test was performed and it was found that cooperative learning has improved the student’s learning in terms of achievement. The results (calculated t-value was t(22) =3.567, p=0.002) suggest that the students’ scores obtained through cooperative learning are significantly different from the students’ scores of the conventional group. However, the study has some limitations, which affects the overall reliability of the results. Nevertheless, majority of the students in this study gave positive attitude towards cooperative learning, which indicates that culture does not have any impact in the strategy.
TAHAP KEMAHIRAN ABAD 21 PELAJAR DAN KEPERLUAN INOVASI DALAM PENGAJARAN DAN PEMBELAJARAN PENDIDIKAN ISLAM: SATU KAJIAN AWAL

Khairiah Hashim pgkhairiah.hashim@pb.edu.bn
Gamal Zakaria gamal.zakaria@pb.edu.bn

ABSTRAK


Kata Kunci: Kemahiran Abad 21, Inovasi, Pengajaran Dan Pembelajaran, Pendidikan Islam
ABSTRACT

Putting in place an accurate cost information for Universities outputs, is no longer a choice but a necessity if the University is to have a world class management system. Nevertheless, the current systems are not designed to support management-related information. Instead fund accounting and budgetary control systems largely dominate the mind-set of Universities administrators. In support of autonomy pathway for public universities in Malaysia, Universiti Kebangsaan Malaysia piloted an educational cost determination exercise using ABC system. Instead of proposing a major overhaul to the system, an ABC model that takes into consideration this limitation, was applied at the University. While far from being perfect, the model is workable within the systems’ limitation. This study examines the process involved in educational cost determination exercise based on the Modified ABC approach. Nine critical steps are explained and lessons learned from the exercise are highlighted. This study contributes to the theoretical knowledge by providing an empirical evidence of ABC application in a service setting or more specifically at the University. In practical, this study provides guidelines on determination of educational cost to interested parties including the University management, Ministry of Education and other Universities.

Keywords — Activity Based Costing, Educational Cost, University, Process
LET’S RHYME MODULE

Noorjahan bt Sultan
SK Indera Mahkota Utama
25200 Kuantan, Pahang Darul Makmur,
Malaysia

ABSTRACT

‘Let’s Rhyme’ is specially designed to enhance the English language acquisition among the children from 4-9 years old. Holistic, fun and meaningful are three basic principals in this rhyming text. The language used is simple and clear enough for children to understand. The learning experience will ensure the children acquire listening, speaking, reading and writing skills. Fostering language through rhymes will also enhance the vocabulary besides improving the pronunciation, grammar and spelling. ‘Let’s Rhyme’ consists of Alphabets Rhymes and Thematic Rhymes. Alphabets Rhymes consists of 28 rhymes; an introduction rhyme, 26 alphabet rhymes and a closure rhyme. Thematic Rhymes consists 40 themes based on National Preschool Standard Curriculum. Themes chosen are developmentally appropriate and socially engaging for students. Sharing them with children will help to develop English language skills. Reciting the rhyme to children with correct pronunciation and intonation together with appropriate action will make their learning process fun and meaningful. The more exposure children have to familiar print, the better prepared they will be for reading. Children are encouraged to share ideas and opinions. As they listen to one another, their personal bases of ideas are expanded. Children become more confident, responsible and the most important they learn naturally.
A STUDY ON THE USE OF PROBLEM-BASED LEARNING TO PREPARE HOSPITALITY STUDENTS FOR EMPLOYMENT

Wena Ninatasha Binti Haji Hamidon @ Abdullah
Maktab Teknik Sultan Saiful Rijal, Bandar Seri Begawan, Brunei Darussalam.
Email: Wena.Hamidon@ssrtc.moe.edu.bn
and
Dr. Adeline Goh Yuen Sze
University of Brunei Darussalam, Bandar Seri Begawan, Brunei Darussalam. Email: adeline.goh@ubd.edu.bn

ABSTRACT

Hospitality is a fast paced dynamic service industry that places demands for skilled and professional workforce fully equipped with employability skills such as communications, teamwork, time management and leadership. The Vocational and Technical institutions offer programmes that are designed to develop work ready individuals. The challenges for Vocational and Technical Institutions and Hospitality in particular, are to remain current in its programme’s curriculum content and pedagogies. The key concern is in providing learning experience for students that reflect real work situation, to be relevant and dynamic to ease transition from training in colleges to the world of work in the service industry. The purpose of this study is to explore the use of role-play in problem-based learning to develop the necessary skills relevant to the workplace environment. Conducted in a form of action research, its cyclic nature allows the opportunity to reflect, investigate the use of an intervention as well as an in-depth understanding of the approach for the purpose of refinement. The research participants comprised of Skill Certificate Level programme students from a Vocational and Technical institution within the Hospitality discipline. The exposure of problem-based scenarios allowed research participants to adapt to varied challenges in the form of role-play based on real-work situations. The challenges of role-play increased in difficulties thus enhancing opportunity for research participants’ skill as work ready graduates. The data collected is drawn from participant observation during the learning process as well as semi-structured interview that were conducted at the end of the assessment. Findings from the study has shown positive outcomes in terms of skills developments through the use of role-play in problem-based learning such as improvement in communication skills, working as a team and critical thinking skills.

Keywords: Problem-based learning, role-play, hospitality, vocational, qualitative, action research
ABSTRACT

Mathematics word problems have been the most challenging topic to learn and teach in any secondary schools. This is especially the case in countries where English is not the first language for the majority of the people, such as in Brunei Darussalam. Researchers proclaimed that limited language proficiency and limited Mathematics strategies are the possible causes to this problem. However, whatever the reason is behind the difficulties students faced in solving Mathematical word problems, it is perhaps the teaching and learning of the Mathematics that need to be modified. For example, the use of four-square-and-a-diamond graphic organizer that infuses model drawing skill; and Polya’s problem solving principles, to solve Mathematical word problems. One of the quantitative analysis in this study found that the use of graphic organizer had improved students’ performance in terms of Mathematical knowledge, Mathematical strategy and Mathematical explanation in solving word problems. Further qualitative analysis revealed that the use of graphic organizer had boosted students’ confidence level and positive attitudes towards solving word problems.
ABSTRACT

Over the past few decades, how we live, work, play and learn has been dramatically transformed by technology. There has also been a great emphasis made all over the world in the development of 21st century skills in students. These skills prepare them to contribute effectively in the knowledge-based economies. The National Education System SPN21 implemented in Brunei Darussalam in 2009 for realizing the goals of Vision 2035 also emphasises the development of these skills. In this case study, the aim was to design a learning activity in Biology to help students develop 21st century skills. Rubrics developed by Innovative Teaching and Learning (ITL) Research for coding the opportunities provided by learning activities or tasks, to develop 21st century skills were used as design guidelines. The learning activity was trialed on sixteen Year 10 Pure Science students. The task required the students to make pamphlets entitled ‘Kidney diseases in Brunei Darussalam’. The students’ work was then assessed to determine the extent to which the students have displayed 21st century skills. It was found that the task encouraged the students to develop three important 21st century skills, namely: collaboration, self-regulation and, real-world problem solving and innovation. Overall, this study revealed that, the ITL rubrics form useful guidelines for teachers to develop learning activities to support students’ content learning as well as the development of 21st century skills.
Balancing chemical equation has been an undervalued problem amongst chemistry educators. We perceive otherwise and thus report in this study carried out in Brunei, firstly the common difficulties Year 10 students face with balancing chemical equations, and subsequently alternative teaching strategies for teaching this concept better to Year 9 students in light of these initial findings. We report that Year 9 students taught using the two different approaches we designed have no significant difference in their ability to balance chemical equations based on our various assessments – a pre-, a post- and a delayed post-test.

Keywords: balancing chemical equation, stoichiometry, conservation of mass, chemistry education
ICE 102

THE ‘GO GREEN PROJECT’: INVESTIGATING THE EFFECTIVENESS OF AN ASSESSMENT TASK

Amirudin Haji Damit
Sekolah Menengah Rimba, Ministry of Education, Brunei Darussalam
amir.hd@rimba.moe.edu.bn

Masitah Shahrill
Sultan Hassanal Bolkiah Institute of Education, Universiti Brunei Darussalam,
Brunei Darussalam
masitah.shahrill@ubd.edu.bn

ABSTRACT

Changes in the business world have resulted in the rise in demand for individuals who have successfully acquired the 21st century skills. Consequently, it is essential for the 21st century learning to take place in the classrooms. This study investigated the effectiveness of an assessment task in enhancing the students’ understanding in Mathematics through collaboration. The assessment task comes in the form of a project in which the two main objectives were to create a model using recycled materials and a series of questions based on their model. The topic on Mensuration is selected for this project and the theme is the ‘Go Green Project’. The task itself was designed to promote active learning environment and to foster creative learning in Mathematics where the designed model is used to elicit the students’ understanding on finding the total surface area and the volume of solids. The task was spread over six mathematics lessons requiring the 25 Year 10 students to work in groups. Thus, enabling the assessment of collaborative skills to take place. Data were collected by means of video recorded lessons, students’ interviews, questionnaires, and pre- and post-tests. The results of the investigation revealed that effective level of collaboration has taken place among students when using the designed assessment task. When students collaborate with one another, it improves their communication skills, train them to be critical thinkers and encourage students to share ideas. Furthermore, there is an improvement in their Mathematics performance.
EXPLORING THE USE OF LEARNING ACTIVITIES TO CONSTRUCT YEAR 9 STUDENTS’ KNOWLEDGE IN MATHEMATICS

Hajah Umisuzimah Haji Mahanin
Sekolah Tinggi Perempuan Raja Isteri, Ministry of Education, Brunei Darussalam
13m8021@ubd.edu.bn

Masitah Shahrill
Sultan Hassanal Bolkiah Institute of Education, Universiti Brunei Darussalam, Brunei Darussalam
masitah.shahrill@ubd.edu.bn

ABSTRACT

Students’ academic performance and achievement in mathematics have been highly dependent on the teacher’s pedagogy that practice student-centred approach as stated in the Brunei Darussalam National Education System for the 21st Century (SPN21) curriculum. This study investigated the use of learning activities to construct Year 9 students’ knowledge in mathematics. Several quantitative methods on pre-experimental designs focusing on one group pre-test post-test design were used. The pre-test data and post-test data were collected from 43 students at a convenience sample of Year 9 government school to assess whether learning activities were related to students’ ability to construct their own knowledge. Descriptive statistics and paired samples test were used to analyse the pre-test and post-test. The results showed an improvement in students’ achievement. The quantified document artefacts were also collected, coded and analysed using RBC-model, where the R denotes Recognising, B is Building with and C means Constructing, to further support the analysed results of the pre-test and post-test. This was to explore the extent of the learning activities in assisting students to construct mathematics knowledge controlling teacher’s conventional way of delivering a lesson in a classroom with the quantified artefacts documents of 27 purposefully selected students’ personal journal of the same samples from 13 formed group planners.
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MONITORING UPPER SECONDARY STUDENTS’ BASIC PROFICIENCY AND ACHIEVEMENTS IN MATHEMATICS

Haslina Tapa
Sekolah Menengah Sayyidina Ali, Ministry of Education, Brunei Darussalam
13m8022@ubd.edu.bn

Masitah Shahrill
Sultan Hassanal Bolkiah Institute of Education, Universiti Brunei Darussalam, Brunei Darussalam
masitah.shahrill@ubd.edu.bn

ABSTRACT

Observing the students’ achievement in Mathematics throughout their early years may be a helpful prediction on how the students perform in the latter years of their schooling. This is when the implementation of new idea or strategies in improving students’ performance in Mathematics is very crucial, which will help to determine the issues and problems that are related to the factors that might influence students’ performance in Mathematics; as well as to make early identifications on how to improve the students’ basic skills in Mathematics, especially in identifying the content strands that most students found challenging. This study aims to monitor Year 11 students’ basic proficiency through a ‘proficiency test’, explored their families’ socioeconomic background (parents’ income and education background) through the use of quantitative analysis as well as students’ English language literacy. Semi-structured interviews were utilised to gather data regarding parental involvement in students’ academic activities. The findings revealed that students’ basic proficiency in Mathematics and English language literacy has a significant effect on their achievements in Mathematics. Parents’ income also has a significant effect on the students’ basic proficiencies and achievements in Mathematics as they had the financial capabilities to send their children to a private tutoring class. However, gender does not affect the students’ proficiencies and achievements in Mathematics.
Problem-Based Learning (PBL) is an inquiry method of learning that allows students to process and acquire new information through the use of ill-structured problems that do not have enough information to be solved. In implementing a structured PBL approach, the teachers guide the students in stages, and for each stage, time allocation was given depending on the task. In this study, a convergent mixed-method design was used to investigate the role of the teacher as a facilitator in using a structured PBL and how the students acquire knowledge by working together in small groups. The participants in this research study were 17 Year 9 students and a mathematics teacher who had conducted a typical PBL and was implementing the structured PBL for the first time. From the observations and interviews, the results showed that questioning techniques and PBL facts list were used to monitor and guide the students to construct the solutions to the problem. From the pre-test and post-test results, the students managed to acquire knowledge where there is an increase in mean between the pre-test and post-test.
ICE 106

BY THE TEACHERS, FOR THE TEACHERS: EMPOWERING OUR TEACHERS

Rossena Hj Johari, PhD
Brunei Darussalam Teacher Academy

Hjh Salawati Hj Abu Hanafiah, MEd
Brunei Darussalam Teacher Academy

Hjh Rosinah Hj Sabli, MEd
Brunei Darussalam Teacher Academy

ABSTRACT

Education plays a crucial role in determining a nation’s capacity and economic competitiveness. It also shapes the values and beliefs of the next generation. In order to fulfill our nation’s aspirations for an educated, highly skilled and accomplished people, a teacher's academy was set up. It is crucial that educators are equipped with the necessary professional competency and aptitude apart from the need to provide access to quality education facilities. The main purpose of the academy is to contribute to the development of teachers’ competency standard to strengthen their teaching and learning processes. The teacher academy also serves to provide an avenue to facilitate professional engagement and knowledge exchange amongst teachers of the same field of different socioeconomic and ethnic backgrounds. The academy is also intended to provide structured support and job-embedded continuous professional development programmes in teaching and learning for teachers in schools in order to accelerate the productivity of learning towards students' excellence. With strong support from the Ministry of Education the teacher academy will continue to strive in delivering sustainable quality professional development training programmes for our teachers based on their specific needs. As a new academy, it has embarked on a number of pilot projects towards the enrichment of teachers professional development which includes instilling the culture of professional learning communities in schools. Using the concept of professional learning community has refocused teachers’ commitment on to the learning of all children. This concept allows teachers' own personal teaching theories and practices to be challenged and changed progressively through collaboration of teachers in professional learning communities.

Keywords: teacher academy, professional engagement, knowledge exchange, continuous professional development, professional learning communities
ICE 107
WHERE ARE THE MALES?
POTENTIAL CAUSAL FACTORS OF THE GENDER GAP IN HIGHER EDUCATION IN BRUNEI AND IMPLICATIONS FOR EDUCATORS

Halimaturradiah Dato Haji Metussin, BHumSc, MSc
11H8951

ABSTRACT
This study examines the potential factors causing a gender gap in academic achievement in the higher learning institutions of Brunei. Given that the gender gap is a worldwide phenomenon and problem in many educational settings, this study investigates the reasons for its persistence and how it can be resolved in the Brunei context. Using in-depth interviews and a survey method, this study employs mixed-methods research and follows the sequential explanatory strategy. The variables investigated include learning styles, study strategies, self-efficacy, coping styles and personality and psychological factors. Mathematics and English language are subjects commonly used as admission criteria to institutions of higher learning. The quantitative findings of this study indicate that there is a significant correlation between gender and mathematics ability, with females performing better than males (P < 0.01). While this study found no statistically significant difference between gender and English language ability, it found that females are more proficient in understanding and using English language than are their male counterparts. The qualitative findings of the study indicate that: 1. there are gender similarities in practices of good academic performance at school 2. teaching methods and school facilities and environment may affect students’ academic performance 3. problems or challenges faced in academic performance or achievement at school 4. early entry to workplace. Overall, this study found out that the characteristics of the highest achievers for mathematics (who were mostly female) used task-oriented coping strategies (P <0.01), read textbooks (P < 0.01), memorised their work (P < 0.05) and prepared before examinations (P < 0.05). In addition, females were found to be assertive, analytical and intellectual (P< 0.05) and extroverted, resilient and caring (P < 0.01). Thus, they had values of integrity and better academic achievement than did their male counterparts. The highest achievers for English language (also female dominant) used reading and deep processing when studying and learning the language (P <0.01). They were analytical, resilient, caring and intellectual (P < 0.05) and possessed values of integrity similar to the highest mathematics achievers (P < 0.05). In addition to exploring these results, this study also discusses this research’s contribution to the field and the implications of its findings.
ICE 108

UNDERSTANDING STUDENT’S RELATION TO ACADEMIC STUDY - SUPPORTING STUDENT-CENTRED TEACHING

Siti Noor Naasirah Syahiirah binti Abdullah-Teo
Department of Planning, Development and Research, Ministry of Education

ABSTRACT

This presentation will introduce my PhD research which focuses on students’ relation to academic study, in supporting the SPN21 student-centred teaching initiative. Whilst there are numerous studies on the relation in terms of student’s motivation towards academic study in their late adolescence stage, the internal relationship between them and academic study is still unclear. This presentation shares the descriptions of students to academic study through a model developed based on the Theory of Activity. The research is based on the understanding that young people are faced with multiple contradicting demands from the society, which evolve with their developmental ages. The contradicting demands generate conflicts for young people as they participate across the different institutional practices in their everyday lives. The research entailed a semi-participatory research approach, which emphasised young people’s lived experiences, from a first-person perspective. Data were collected from focus group discussions, annotated photo albums and a ‘participant self-generated’ questionnaire. The focus of the data collection was on the young people experiences of conflicts with respect to their academic study and the different agenda in their everyday lives. It is a societal demand for young people at late adolescence stage to be vocational and career oriented. However this study shows the young people are also oriented towards other objects, apart from being future oriented. They can still have a dominant motive-orientation towards intimate personal relations, which usually prevails for early adolescence stage. Two other motive-orientations have also emerged from this study, i.e. the societal value system and self-comfort related. These different motive-orientations of the young people contradict the societal demands and create conflicts for the young people as they participate in and across the practices. These findings are important in informing intervention programmes to improve young people’s engagement in academic study, especially with respect towards a student-centred teaching initiative.
ABSTRACT

The scope of this presentation while focusing on teacher autonomy has inevitably been enlarged to include several reforms and initiatives by the Ministry of Education, Singapore. Although school-based curriculum development was a recent initiative to enhance ‘Teach Less Learn More’ (TLLM) initiative in Singapore, this research warrants the inclusion of Malay Language and Literature education. However, a larger scope meant that the focus, particularly in the literature review and the analysis, had to be shared between teacher autonomy and cultural identity. Both notions are extremely complex in their own respect, particularly as bilingual policy is the main pillar in Singapore education system and thus would have benefitted from a more in-depth discussion should they been studied separately. I will attempt to explore to what extent the issues arising from this study could link teacher autonomy to cultural identity and self-determination in relations to educational assessment and reforms in Singapore.

It is argued that when ‘students have teachers who are autonomy supportive or when they perceive teachers to be autonomy supportive, these students perform better, and display more intrinsic motivation, perceived competence, and high self-esteem’. With regard to the argument put forth by Deci & Ryan (2000), we could see how closely linked autonomy to the concept of self-determination. This symbiotic notion requires teachers to be free in order to be a ‘critic’, ‘judge’, ‘initiator’ and ‘regulator’, to improve holistic and academic engagement. I would also offer several recommendations on how the central agency/government could play a greater role in rendering support by giving teachers the autonomy, and fully supporting the Malay Literature curriculum and the MLSG. With full support, students would appreciate the importance of cultural identity and the importance of learning Malay Language and Literature so that they could feel autonomous and part of a self-determining society in Singapore.

Keywords: Teacher autonomy, school-based curriculum development, self-determination, cultural identity, 21st century competencies.
The Department of Education in the Philippines implemented the new K to 12 Curriculum which started last school year 2012-2013 by virtue of the Republic Act 1033 or the Enhanced Basic Education 2013. The new science program has many innovations in terms of the arrangement of competencies, integration of each branch of science in every grade level, mode of instruction, and learning pedagogies. It is the aim of this research to determine the perception of students on the new science curriculum in terms of the concepts they learn, the skills they acquire, and the values and attitude they develop. This research also aims to assess how judicious science teachers implement the new curriculum. To achieve such goal, a qualitative survey method was utilized. The respondents of this research are 216 grade 8 students of the selected schools in Metro Manila. Upon the analysis of the data gathered it has been found that most students agree with the items in the questionnaire as regards the three learning domains being evaluated (Mode = 4). The students also perceive that teachers judiciously implemented the new science curriculum (Mode = 4).

Keywords: K to 12 in the Philippines, Science Education, Student Perception