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ABSTRACT BOOK

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A DESIGN OF ANDROID BASED CHECK-LIST FOR INCREASING FLIGHT SAFETY AND REDUCING AIRCRAFT ACCIDENTS

Aysegul Alaybeyoglu, Ali Ozdemir, Hasan Incekas, Kadriye Filiz Balbal

In daily life, pilots are required to get all documents related to the flight along with paper maps and checklists and use them if necessary. It is important for the decision-making process to be able to access the right information at the right time, in the right place. Cross-check is the serial and continuous check of inside and outside information by the flight crew during flight. The most important factor that helps pilots is the ability to quickly move their attention-focal point while doing a complex job of flying an aircraft. This scrolling speed is also limited by the pilot's ability. For this reason, it is vital for all flight crews, especially for pilots, to keep track of all internal and external information and data related to the aircraft constantly throughout the flight without ever jumping. The application we are working on allows the flight crew to make the flight method easier and more productive.

Keywords: Flight Safety, Flight Check List, Android Programming

A DESIGN OF IMAGE COMPRESSION SYSTEM FOR MOBILE DEVICES

Aysegul Alaybeyoglu, Ali Ozdemir, Omer Gungor, Kadriye Filiz Balbal

In recent years, communication technologies are growing rapidly. Developments in technology is very important for increasing the communication between individuals. This situation requires efficient transmission of information and mean while efficient usage of communication resources such as energy and storage. The aim of this study is to develop a system which compresses the image data and transmits it to the others by using mobile devices.

Keywords: Image Compression, Mobile Programming

A DESIGN OF SOCIAL MEDIA ANALYSIS SYSTEM BASED ON MOBILE PLATFORMS

Aysegul Alaybeyoglu, Levent Yavuz

Along with the developing technology, social media technologies have become widespread and the number of internet users has increased rapidly. In addition, social media platforms have become very popular and the number of active social media users has increased considerably. As a result of the increased use of social media, there has been a trend towards mobile platforms. In this paper, a design of a social media analysis system is developed using mobile platforms based on Android. By this way, important data about social media users will be able to gathered and analysed.

Keywords: Social Media Analytics, Android, Tweet Analysis, User Analysis

A FINITE ELEMENT SCHEME FOR THE MODIFIED KAWAHARA EQUATION WITH B-SPLINE FUNCTIONS

Turgut Ak

Modified Kawahara equation has been studied in the past during several occasions. This equation models water waves in long wave regime for moderate values of surface tension. In this study, a finite element scheme for the modified Kawahara equation is presented with B-spline functions. Applying the von Neumann stability analysis, the presented method is shown to be unconditionally stable. Error norms and a couple of conserved quantities are computed at selected times. The accuracy of the proposed method is checked by three test problems including motion of single solitary wave, interaction of two and three solitary waves. Finally, the method successfully models the motion and interaction of the solitary waves and evolution of solitons. So that, we can say that this method can a reliable method for obtaining the numerical solutions of similar type non-linear equations.

Keywords: Modified Kawahara Equation, Finite Element Scheme, B-spline

A MATHEMATICAL MODEL -INTEGRATED WITH AHP FOR SHELF SYSTEMS SELECTION AND SETTLEMENT

Bahar Özyörük

Increasing competition has driven businesses to work efficiently. Reduction of total production times for products, minimization of costs, and delivery of products to customers faster and more securely must also address the objectives. In this study, a study has been carried out in order to store materials for the raw material warehouse which is one of the most important part of an operation in Ankara in a more accurate and secure manner, to carry out material handling activities more efficiently and to shorten the delivery times. Prior to the study, the products were classified and alternative shelf systems for outstanding products were examined. The Analytical Hierarchy Process is used to decide the appropriate shelf type. A mathematical model has been developed for placing the shelf type products considering the space requirements. The model is solved with the GAMS package program. The results are evaluated.

Keywords: Shelf Systems Selection , Ahp, Shelf Settlement

A MOBILE APPLICATION FOR ANDROID DEVICES

Aysegul Alaybeyoglu

Mobile applications which are very integrated to people's daily life activities are designed to run on mobile devices. Especially in recent years, with the development in smarth phone technologies, people can communicate, share pictures and videos with each other very rapidly and easily. Because of the energy contraints of mobile phones, compression of huge data such as image and video, becomes an important topic especially while transmitting them between mobile devices. In this study, a mobile application which provides user an interface to load, compress and transmit image data is designed for Android based mobile devices.

Keywords: Andorid Programming, Image Compression

A MULTIPLE CRITERIA DECISION MAKING APPROACH TO DETERMINE THE COMPANY TO BE AWARDED

Uğur Özcan, Kübra Altunay

It is often encountered with the problem of making the most effective use of the budget in the public service sector where social, environmental, structural, political factors are involved and the limited budget is to be used in the best way. From multi-criteria decision making techniques, Analytic Hierarchy Process (AHP) and TOPSIS are two of the decision-making methods used to solve such problems with multiple criteria. In this study, selection of the company that will receive the SME Grand Award, which is held annually and the winners receive various awards, are examined. The weights of the criteria were determined by the AHP method. And then the model created using the TOPSIS method was used to solve the problem.

Keywords: Company Choice, Ahp, Topsis

A NUMERICAL APPLICATION TO INVESTIGATE BEHAVIORS OF DISPERSIVE SHALLOW WATER WAVES

Turgut Ak

In this study, a numerical method is proposed for the numerical solution of Rosenau-KdV equation with appropriate initial and boundary conditions by using collocation method with B-spline functions on the uniform mesh points. The method is shown to be unconditionally stable using von-Neumann technique. To check accuracy of the error norms are computed. Interaction of two and three solitary waves are used to discuss the effect of the behavior of the solitary waves during the interaction. Furthermore, evolution of solitons is illustrated by undular bore initial condition. These results show that the technique introduced here is suitable to investigate behaviors of dispersive shallow water waves.

Keywords: Rosenau-kdv, Finite Element, Collocation, Dispersive, B-spline

A NUMERICAL INVESTIGATION TO EXIST THE NEW AIRFOIL PROFILES FOR USE ON WIND TURBINES

Hasan Düz, Serkan Yildiz

In this study, several airfoil profiles to use as wind airfoils which were selected from the available airfoil families for aircrafts were numerically tested at different attack angles (0°, 5°, 10°, 15° and 20°) and at different wind velocities (4, 7, 12 and 20 m / s). Performance of airfoils and pressure coefficient on the lower and upper surface of airfoils were compared to each other by the numerical data supplied. It is observed that all the airfoils have shown their best performance at the vicinity of angle attack of 5o. It is also observed that wind speed have a positive effect on the performance as the wind velocity increased. Among the airfoils , FX 63-137 airfoil has shown the highest performance at the angle attacks $\alpha > 3o$ and whereas at smaller angle attacks $\alpha < 3o$, EPPLER 58 have shown the highest performance with a small percentage higher than FX 63-137. On comparing the pressure coefficient of the EPPLER 58 and FX 63-137, it was considered what will be the performance when the best sides of the two airfoils are combined to

create a hybrid model by taking the lorwer surface data from the EPPLER 58 and upper surface data from the FX 63-137. The hybrid profile created by this way was numerically performed and when compared to all profiles with its numerical performance values obtained has shown high performance than both FX 63-137 and EPPLER 58 for the angle attack $\alpha < 7o$ and also has shown the near values with FX 63-137 at higher angle attack $\alpha > 7o$. As can be considered, the method applied here has produced good results with achieving higher performance with the hybrid profile so it can be recommended to users to search high performance airfoils.

Keywords: Airfoil, Wind Turbine, Attack Angle, Airfoil Performance, Numerical

A NUMERICAL STUDY TO INVESTIGATE THE WALL SHEAR STRESS VARIATION AT A PIPE ENTRANCE FLOW

Hasan Düz

In this study, the wall shear stress variation along the entrance region of a horizontal water pipe flow was investigated numerically across the different pipe roughnesses included with the same pipe diameters. The pressure drops at the pipe flow entrance are essential for the proper design of compact heat exchangers and other heat transfer and fluid flow devices which their design require a short pipe flow section.
Steady developing flows at pipe entrance was performed numerically with a flat velocity profile and with a free stream turbulence at medium level at pipe inlet. Validation of the numerical study was tested across the experimental data with a good coincidence on comparision. The numerical pipe flows was investigated for the Reynolds number from 2000 to 25000 to aim to cover laminer, transitional and turbulent flow regimes together. Numerical wall shear stress variation along the entrance region was analysed across each flow rate. As a result of the analysis performed, a numerical correlation which define the wall shear stress variation along the pipe entry length was derived from the numerical data. The numerical correlation suggested here as well as provided good agreement with numerical data at all flow regimes, also has found well coincident with the Shah Correlation in the laminar entry Length flow.

Keywords: Pipe Flow, Entrance,numerical, Wall Shear Stress, Energy, Friction

A REVIEW OF ILLUSTRATED CHILDREN'S BOOKS WITH RESPECT TO SCIENTIFIC TOPICS COVERED AND THE USE OF SCIENTIFIC VOCABULARY

Özlem Okyay, Dilek Sahillioğlu

This study aims to provide a review of illustrated children's books authored for a pre-school age audience, with reference to the scientific topics covered by the texts, character traits, and the use of scientific vocabulary. Employing the screening method –a type of descriptive research methods–, the study made use of document analysis for data collection, analysis, and interpretation. The study universe is composed of illustrated children's books prepared for pre-school children and printed in Turkey or abroad, while the study sample includes 80 illustrated children's books selected through sampling. The researcher reviewed 80 illustrated children's books selected in consideration of their scientific contents or vocabulary, out of a total of 250 illustrated children's books she received from publishers and bookstores or came across at children's libraries, and registered the books on a sheet noting the publisher, publication year, topic of, scientific vocabulary use and the relationship between the illustrations and text in the books, along with a

brief summary and keywords to reflect the traits of characters depicted in the books. The books were screened in line with the criteria established by the researcher. According to findings reached in the study, 59% of the illustrated children's books reviewed included some reference to life sciences among the fundamental branches of science, while books with references to earth and space sciences, physical sciences, and ecology accounted for 23, 12, and 6 percent respectively. 32% of the books reviewed were found to focus on providing knowledge, while 25% were tales on scientific topics. A further 28% were observed to entail stories employing scientific vocabulary. The books were found to explore mostly topics associated with social relationships, weather events, and animals. The analysis of the illustrated children's books, with reference to the use of scientific vocabulary, on the other hand, revealed the frequent use of the names of animal and plant species, words to describe the physical characteristics of animals, words to denote the growth stages of plants, names of colors, names of concepts, and words related with weather and seasons. The books entailing an animal or a child as the main character emphasize the character traits of curiosity, fun, imaginativeness, and fighting spirit. The children's books which would expand the horizons of children and which would provide the children with the means to get a better understanding of how the world they live in works were found to be short in supply. The need for illustrated children's books which could teach science through a tale, as well as due use of the books authored with these issues in mind, in line with scientific facts, is evident.

Keywords: Illustrated Children's Books, Scientific Topics, Scientific Vocabulary

A REVIEW OF LOCALIZATION PROBLEM AND LOCALIZATON ALGORITHMS IN WIRELESS SENSOR NETWORKS

Derya Eker, Doğan Savran, Gürkan Tuna

In wireless sensor networks, there may be a number of fixed sensors whose locations are initially known and a number of other sensors at unknown locations. Sensor nodes can be either stationary or moving. When working on the localization problem, a suitable model is formed by the measurements taken between sensor nodes. Measurements can be made between nodes with known location and unknown location and also between nodes with unknown locations. Localization algorithms aim to determine the locations of the nodes whose locations are unknown. In this study, which examines the localization problem in wireless sensor networks, the localization algorithms in the literature are discussed and the localization problem is approached from different angles.

Keywords: Wireless Sensor Networks, Localization, Measurement Models, Localization Algorithms

A SEARCH ABOUT THE PERCPTION OF THE TEACHER'S POSITIVE PSYCHOLOGICAL CAPITAL AND THEIR ORGANIZATIONAL COMMITMENT

Ismail Aslan, Haci Ismail Arslantaş

There is a great change on the education with the information, which is updated, and well-known facts in this period. Additionally, there is a change of the teachers' positive psychological capital, school dependence situations and even organizational commitment. It is a need to examine this situation which is uploaded and new happening. All in all, it is a situation that we need to examine on whether this change is related to the teachers adaptation problems.

The teachers' psychological perception change is examined with a positive oriented form based on organizational commitment in this work. Positive psychological capital and organizational commitment scales are implemented on the 608 teachers among 6746 teachers who work in different stages in Şırnak in this quantitative work. The search analysis show that there is a low positive oriented relationship considering the results of Pearson Correlation Test which includes teachers' psychological capital perception and organizational commitment. In this situation, it can be said that as long as teachers' positive psychological capital perceptions increase, too. Or as long as the level of variance decrease, other levels decrease, too.

Keywords: Psychological, Psychological Capital, Positive Psychological Capital, Organizational Commitment, Teachers.

A STUDY ON THE SOCIAL CLUB STUDIES IN SECONDARY EDUCATION IN TURKEY WITH TEACHER'S VIEWS

Sevgi Coşkun Keskin, Ayşe Aydoğmuş

This study aims to take teacher views on the functioning of social clubs, reveal teachers' perceptions about the weaknesses and strengths of the implementation of these activities and also propose the suggestion for the efficiency of social club studies. The participants of the study which is done with the phenomonologic approach from the qualitative research designs consist of 30 teachers who work in secondary schools in Sakarya, Bursa, İzmit, İstanbul and Kütahya and advise to social clubs. Data were collected with interview questions that consist of 18 questions and analyzed. As a result of the analysis it was determined that teachers choose the club selection themselves in generally, more than half of the students choose their clubs with the request of the teacher, the majority of teachers feel themselves the sufficient and they gain the sufficient with experience. On the other hand, 2/3 of the teachers were stated that they make a plan for studies but dont implement these plans because of the crowded classes, lack of time, lack of school facilities and applicability of plans, non-participating families to studies , bureaucratic obstacles, perception of spare time activities for club studies. Approximately 2/3 of the participants were stated that they could not make club activities in sufficient number and quality. The reasons of this situation are listed in that way: using these hours as preparation to the TEOG test, not enough time, can not be done club meeting because there is not enough class,the lack of interest of the students, students from different class levels, seeing himself/herself inadequate about the club as a teacher. the source of the problems encountered in social club studies was also stated as school management and MEB, students, teachers and families. Teachers who have difficulties in cooperation with family, school administration and official authorities think that social clubs contribute to students in cognitive, emotional, social , individual development and self-recognition, psychomotor and other fields.

Keywords: Social Club Studies, Out Of School Learning, Secondary School

A STUDY ON THE VIEWS OF STUDENTS, COORDINATOR TEACHERS, SCHOOL ADMINISTRATORS AND BUSINESS OWNERS ON VOCATIONAL EDUCATION AT THE BUSINESSES

Oğuz Yilmaz, Ahmet Oğuz Aktürk

Final year students at Vocational and Technical Anatolian High Schools undergo a practical education at a business enterprise similar to an internship on 3 weekdays under the title of Vocational Education at Businesses (Skills Training at Businesses). This education is intended to enable students to put into practice the theoretical information they have learned and undergo an adaptation process by learning what business life is like. This application requires a close cooperation among students, coordinator teachers, school administrators and business owners. The purpose of this study is to evaluate the views of students, coordinator teachers, school administrators and business owners with regard to vocational education at business enterprises. The working group of the study was determined on a voluntary basis from among students studying vocational high schools, coordinator teachers in charge, school administrators and business owners in the Ereğli district of the Konya province. The semi-structured interview technique was used as the data collection tool in this study, in which the qualitative research method, was employed. The research data were collected by administering interview forms consisting of 5 open-ended questions, which were prepared separately for students, coordinator teachers, school administrators and business owners. The data obtained will be analyzed using the descriptive analysis technique, and summarized and interpreted according to the themes revealed by the research questions. In this way, an attempt will be made to obtain, from the qualitative analyses conducted, detailed and in-depth information about the views of students attending vocational education at businesses, the coordinator teachers in charge there, school administrators and business owners. Suggestions will be made on the basis of the findings obtained from the study.

Keywords: Vocational Education At Businesses, Student, Coordinator Teacher, School Administrator, Business Owner, Qualitative Research

A STUDY ON THEORETICAL AND EXPERIMENTICAL SPECTROSCOPIC PROPERTIES 1-METHYL-3-BENZYL-4-(3-ETHOXY-4-METHOXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

Gül Özdemir, Murat Beytur, Osman Üçüncü, Haydar Yüksek

In this study, theoretically spectral values of 1-methyl-3-benzyl-4-(3-ethoxy-4-methoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one was calculated and these values were compared with experimental values (Yüksek et al., 2005) and obtained conclusions were evaluated. For this purpose, firstly, 1-methyl-3-benzyl-4-(3-ethoxy-4-methoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one has been optimized using B3LYP/6-311G(d,p) and HF/6-311G(d,p) basis set (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). 1H-NMR and 13C-NMR spectral values according to GIAO method was calculated using Gaussian G09W program package in gas phase and in DMSO solvent (Wolinski, 1990). Theoretically and experimentally values (Yüksek et al., 2005) were plotted according to δ exp=a. δ calc. + b, Eq. a and b constants regression coefficients with a standard error values were found using the Sigma plot program. Theoretically calculated IR values of this compound were calculated in gas phase by using of 6-311G(d,p) basis sets of B3LYP and HF methods and are multiplied with appropriate scale factors and the values obtained according to B3LYP and HF methods are formed using theoretical infrared spectrum. The identification of calculated IR values were used veda4f program (Jamroz, 2004). UV-vis values in ethanol were calculated. In addition, bond angles, bond lengths, dipole moments, the highest occupied molecular orbital-lowest unoccupied molecular orbital (HOMO-LUMO) energy, mulliken charges and total energy of the molecule were calculated with both methods. The calculated and experimental results were exhibited a very good agreement.

Keywords: 4,5-dihydro-1h-1,2,4-triazol-5-on, Gaussian 09w, Giao, B3lyp, Hf, 6-311g(d,p) Basic Set.

A TEST EQUATING STUDY CONCERNING TO ALES (ACADEMIC PERSONNEL AND POSTGRADUATE EDUCATION ENTRANCE EXAM) SCORES OBTAINED AT DIFFERENT TIMES IN A YEAR

Ceren Mutluer, Zekeriya Nartgün

The purpose of this study is to equate ALES (academic personnel and postgraduate education entrance exam) scores with linear equating and equipercentile equating methods in the periods of 2011 spring and autumn conducted by SPSS, to determine the most suitable one of these two methods for research and to propose the most suitable one thanks to the findings in case of a similar study. The study population was 21860 people participating in ALES made in the periods of both 2011 spring and 2011 autumn. The sample of the study were 2186 individuals,respectively selected 10 % of population randomly via computer. The data used in this study was raw scores concerning to the fields of ALES's verbal, quantitative, equally weighted. The data analysis was performed at four stages. At the first stage, descriptive statistics were calculated for all sub-tests; at the second stage, it was checked whether equation conditions were fulfilled; at the third stage, the equated points were found by using linear and equipercentile equating methods; at the fourth stage, it was found out that which equation method was more suitable by obtaining error quantities of equation methods WMSE coefficient. It was calculated whether there was a difference between the mean, the variance, the internal consistency coefficients, the average difficulty about onedimensionality in order to ensure the equation requirements. In the study, the internal consistency was calculated without eliminating items by using KR-21 formula because datas were raw scores. Analyzes were carried out because of the fact that internal consistencies were high without eliminating agents of heights. When the periods of 2011 spring and autum were analyzed it seemed that all of the prerequisite features were provided. Linear and equipercentile methods applied seperately to the raw scores of sizes. It was found that there was a positive high level corelation between raw scores and equated scores in the first sub-problem. Deviations were observed towards extreme values in the quantitive and equally weighted sub-tests when the difference values are examined but extreme values were negative in the verbal subtest. It was found that there was a positive high level corelation between raw scores and equated scores in the second sub-problem. Also fluctuations were observed between raw scores and graph which is made upof equated scores corresponding to this scores.Error quantities were measured by WMSE formula to determine which equation method was more appropriate for research and when the data of research findings were analysed it was found that WMSE coefficient of equipercentile method was lower. As a result of this study equal percentile equating was found more appropriate on the equation study concerning to the field of quantitative, verbal, equally-weighted.

Keywords: Test Equating, Single Group Design, Linear Equating, Equipercentile Equating

A THEORETICAL INVESTIGATION OF STRUCTURAL, ELECTRONIC, LINEAR AND NONLINEAR OPTICAL PROPERTIES OF 4-CARBOXYPHENYLBORONIC ACID

Güventürk Uğurlu, Murat Beytur, Haydar Yüksek

Theoretical study on molecular structure, electronic and nonlinear optical properties of 4-carboxyphenylboronic acid molecule has been conducted. The ground state geometrical energy, the dipole moment (μ), mean polarizability (α), the total first static hyperpolarizability (β), energies of the highest occupied molecular orbital energy (HOMO) and the lowest unoccupied molecular orbital (LUMO) in the ground state were calculated by using ab initio Hartree-Fock (HF) and Density functional theory (DFT), using B3LYP functional, with 6-311++ G (d, p) basis set. ELUMO-EHOMO energy gap (ΔE), electronegativity (χ), electron affinity (A), global hardness (η), softness (σ) and ionization potential (I) were calculated. Also,

1H NMR and 13C NMR chemical shifts calculations have been performed by using the both models, where the various basis sets were employed. Potential energy surface (PES) of title molecule was calculated using B3LYP/6-311++ G (d, p) basis set by rotation around the related C-C and B-C single bonds. The structural parameters of the studied molecule compared with data given in the literature. Energy gap (ΔE) value of 4-carboxyphenylboronic acid molecule are calculated at 5.39 and 10.28 eV with DFT/B3LYP and HF level of the theory 6-311++G (d, p) basis set, respectively. Computational studies on the isolated molecules in the gas phase were performed by the aid of Gaussian 09 program package and Gauss view 5.0 molecular visualization programs.

Keywords: 4-carboxyphenylboronic Acid, Elumo-ehomo, Potential Energy Surface (pes)

AB INITIO HF AND DFT STUDIES ON MOLECULAR STRUCTURE AND VIBRATIONAL ANALYSIS OF PYRAZINOIC ACID

Güventürk Uğurlu, Murat Beytur, Haydar Yüksek, Tuba Uğurlu

The vibrational frequencies of pyrazinoic acid molecule (PAZ), in the ground state have been calculated by using ab initio Hartee Fock (HF) and density functional theory (DFT) methods employing B3LYP exchange correlation with 6-311++G (d,p) basis set. The two stable conformers of the studied molecule (cis-conformation and trans-conformation) were computed. The computational results diagnose more stable conformer of pyrazinoic acid as the trans-conformer form. Theoretical vibrational spectra have been interpreted by potential energy distribution (PED) by means of the VEDA-4 software package. The equilibrium geometry of the title molecule have been performed at the B3LYP/6-311++G (d, p) and the HF/6-311++G (d, p) levels of theory. EHOMO (the highest occupied molecular orbital energy), ELUMO (the lowest unoccupied molecular orbital energy), HOMO-LUMO energy gap (ΔEg), the dipole moment (μ), mean polarizability (α) and the total first static hyperpolarizability (β) are also investigated by using the same computational methods. 1H NMR and 13C NMR chemical shifts calculations have been performed by using both models, where the various basis sets were employed. The calculated vibrational frequencies and the optimized geometric parameters were found in a good agreement with the corresponding reported experimental data in the literature. The dipole moment for cis-conformation and trans-conformation are calculated at 1.69 and 1.86 Debye with DFT/B3LYP level of the theory 6-311++G (d, p) basis set, respectively. Computational studies on the isolated molecules in the gas phase were performed by the aid of Gaussian 09 program package and Gauss view 5.0 molecular visualization programs.

Keywords: Pyrazinoic Acid, Homo-lumo Energy Gap, Dipole Moment.

ACADEMIC ACHIEVEMENT OF FIFTH GRADE STUDENTS OF MOBILE APPLICATIONS, TECHNOLOGY AND ITS EFFECT ON ATTITUDES TOWARD THE ENVIRONMENT: ENVIRONMENTAL EDUCATION

Ecem Karasaç, Fatma Şahin

Today, the generation that grew up with technology in every area of our lives intertwined are native to. The requirements and learning styles of this generation, these requirements also differ. Always talking about how the education system is being queried can be taught better, and are entered for a new quest. Classic models and methods of teaching and their learning is inadequate to teach something to the children now the age of technology most of the time their style of fit. In the efforts to adapt your learning style this is a new learning mobile learning (m-learning) concept has emerged. Mobile learning provides easy access to the information you want people everywhere and in all circumstances. Mobile learning, we can do that we can access the information and the transaction that we can carry out e-learning tools is defined as. Namely, the mobile learning, students and learning on the Internet provides ease of access to the tools that they are looking for training materials to learn with is to provide. If we are to define mobile learning mobile phone, tablet, laptop computers with wireless devices such as data processing and storage with tools is learning that is performed. Limited to only mobile devices in the classroom to keep teaching education and access to information anytime and anywhere. The student wants to learn from the class and independently on the things are easily reachable from the environment. Thanks to this rapid development of technology, anywhere can have instant access to information that can be trained. Mobile learning, because they recognize the opportunity to learn independent of time and place so it saves people time and spatially information each time a space offers people the opportunity to reach no limit. Easily to instructional mobile learning are being integrated. Since childhood, growing up with tablet computers and smart phones to use this technology in their approach to something them because they're teaching them in a way that can contribute to more effective and better ability to learn. The skills and knowledge required to be taught in schools games, videos, animations, etc. thanks to mobile devices and mobile applications, taught in a way that it enables us to more fun and more effective. Technological tools and applications that they are accustomed to students (video, online gaming, simulation, animation, etc.) things more effectively teach them the lessons more fun and in the name of abortion is of great importance. The aim of this study academic achievement of fifth grade students of mobile applications, technology and to examine the impact of attitudes towards the environment with regard to the environment. Work in two separate secondary schools in the silivri district 5. Was applied on students. The study was carried out using a mixed method. 5 two different secondary schools in the study. Used graders, a school represents the experimental group and 27 students was implemented. 26 other schools on behalf of students with control group pre-test- - test was applied. 5. This study implemented with secondary school students who were walking to class in the experimental group were tried and lessons on the subject of the environment mobile applications (video, online gaming, simulation, animation, etc.) has been processed. Prepared the test data with regard to academic achievement, the environment, Technology attitude scale, Students ' environmental attitude scale portion of the study constitute the data of the quantitative and qualitative portion of the study questions and audio recordings of student opinion student opinion data constitute. According to the results of the analysis on the data, representing the experimental group students pre-test, a statistically significant increase in academic achievement in the control group is not statistically significant, it was determined that a shot. According to the results of the technology attitude scale, the attitudes of the students in the experimental group while the control group was observed in a statistically significant result is observed. Environmental attitudes environmental attitude scale of students in the experimental group while the control group was detected in a statistically significant increase is observed.

Keywords: Mobile Learning, Mobile Applications, Mobile Devices, Online Gaming, Animation, Simulation, Technology, Education, Environment, Technology - Education Integration

AFFECT OF POPULATION SIZE ON THE PERFORMANCE OF THE MOEA/D ALGORITHM

Ahmet Özkiş, Mehmet Beskirli

Multiobjective Evolutionary Algorithm Based on Decomposition (MOEA/D) is a population based evolutionary algorithm by modifying the single-objective Evolutionary Algorithm (EA). MOEA/D decomposes a multiobjective optimization problem into a number of different single objective subproblems and then uses a population-based method to optimize these subproblems simultaneously. In this study, population number of the MOEA/D algorithm was set as varying numbers from 10 to 1000 and affect of varying population number on the performance of the MOEA/D algorithm was investigated on multi-objective problem families ZDTs and WFGs. Four different quality indicators were used to evaluate the performance of the tested MOEA/D algorithms: Hypervolume (HV), SPREAD, EPSILON, Inverse Generational Distance (IGD). Affect of population size on the performance of the MOEA/D algorithm was analyzed with the experimantal results.

Keywords: Multiobjective Optimization, Evolutionary Algorithms, Population Based Strategies, Parameter Tuning

AN ACTION RESEARCH IN SCIENCE: PROVIDING METACOGNITIVE SUPPORT TO YEAR 9 STUDENTS

Francis Wagaba, David Treagust, Arul Chandrasegaran

An action research study was designed to evaluate the effectiveness of providing metacognitive support to enhance Year 9 students' metacognitive capabilities in order to better understand science concepts related to light, environmental health, ecosystems, genetics, ecology, atoms and the Periodic Table. The study was conducted over three years involving 35, 20 and 24 students in each year. The interventions included providing students with clearly stated focused outcomes about the relevant science concepts, engaging in collaborative group work, reading scientific texts and using concept mapping techniques. The data to evaluate the effectiveness of the metacognitive interventions were obtained from pre- and post-test results of the Metacognitive Support Questionnaire (MSpQ). The results showed significant gains in the MSpQ.

Keywords: Action Research; Metacognition; Metacognitve Support; Science Concepts.

AN ALTERNATIVE LEARNING MATERIAL FOR TEACHING METHODS: ACADEMIC INFOGRAPHIC

Fatma Burcu Topu

The aim of this study is to determine the opinions of the prospective teachers about academic infographics used to visualize the theoretical information in teaching methods. Participants consist of CEIT 3rd grade students in Special Teaching Methods course. This is a case study which used qualitative research approaches. Data were collected using the semi-structured interview form developed by the researcher. Before the course, students were informed about the purpose of using and the development process of the academic infographics. Firstly the participants were divided into 9 groups and each group was asked to

investigate a different teaching method by utilizing the academic resources by the lecturer which is also the researcher of this study. Then participants were expected to exhibit the skills and achievements in material design and development course during the academic infographic development process. Participants were expected to exhibit the skills and achievements in Design and Use of Instructional Material course during the academic infographic development process. At the end of 3 weeks of research and development process, the academic infographics developed by each group have examined and returned in terms of content and visuality by lecturer. During the implementation process, participants studied an academic infographic for a teaching method. During the implementation process of 2 days a week in total for 5 weeks, participants studied an academic infographic for a teaching method. After the implementation, participant opinion was taken for the use of academic infographics. The findings are presented by divided into themes. Accordingly in the pedagogical lessons, it is important for the participants to use an alternative learning material in order to keep in mind the theoretical knowledge. For this reason, this study will contribute to the educators and researchers in order to the pedagogical courses can be done efficiently.

Keywords: Teaching Methods, Academic Infographic, Online Learning Material.

AN ANALYSIS OF SOCIAL STUDIES TEACHER CANDIDATES' SELF-CRITISIM AFTER MICRO TEACHING

Sevgi Coşkun Keskin

One of the most effective methods used in teacher education is micro teaching. Micro teaching method is like simulating teacher candidates. That is, micro teaching makes a practice about teacher candidates' field knowledge and formational competence in artificial environment and so it takes a step into the teacher profession that will implement in the future. In our country, this method usually is applied from the third year in education faculties. However, in general, teacher candidates are evaluated by other teacher candidates. Most of the time,it is out of the question the self-assessment of teacher candidate. This study aims that teacher candidate critizes himself/herself in the context of his/her own course and it adds a wealth to micro teaching practices through his/her own proposal. In addition it try to reveal whether teacher candidates see themselves the most enough on which matters. In the research using the case study from the qualitative research designs, the special teaching methods II given by the researcher herself were carried out and then written criticisms of teacher candidates were subjected to document analysis by watching the filmed video of the teacher candidates during their the course. In the study, data was collected from the 180 social studies teacher candidates for four years. After coding for the reliability of the study, 50 randomly selected self-criticized papers were examined by seven field specialists who gave special teaching methods II and it was required to write the sentence numbers of the codes given to them. As a result of this process, 98% of the codes were found the integration. In a result of the research, teacher candidate was criticized themselves the most in the following matters: we are inadequate to prepare the activities, cannot choose the right method apropriate to topic, can not use the time efficiently, can not express exactly what we want to say, dont show the constructive teacher role, have difficulties in selecting and implementing apropriate material, dont ask to students thoughtful questions, dont give an opportunity to think them and answer the question, forget to give the instruction or dont give clear instruction, can not use body language, dont use classroom area because of excitement and stay where we are, are taken aback in the face of unexpected questions, are uncomfortable as rehearsal.

Keywords: Micro Teaching, Social Studies Teacher Candidates, Self-critism

AN ANALYSIS OF THE DIFFICULTIES IN EDUCATING SYRIAN REFUGEE CHILDREN

Özkan Akman

According to the United Nations High Commissioner for Refugees, more than half of the refugee population all over the world is children. Proportionally, Turkey is hosting a significant part of these refugees. This study has been carried out in order to determine the disruptions in the education of the Syrian refugees educated in the Nizip district of Gaziantep province of Turkey. The research study group is composed of 11 social sciences teachers working in Nizip. These teachers were determined by snowball sampling which is one of the purposive sampling methods. Semi-structured interview technique has been used as qualitative research techniques in the research. The data obtained in the research are analyzed by content analysis technique. Social studies teachers' position has been influential in the selection of the study group because of their intended purposes in the program. The analysis of the research has been made by coding the discourses obtained from the interviews. According to the results obtained, most of the Syrian students stated that they are resistant to learning Turkish because of their anxiety about losing their selves. Moreover, since Syrian refugees see themselves as refugees, they also have problems of adaptation. Therefore, it is stated that they have a problem of socialization.

Keywords: Refugee Problem, Social Studies Teachers

AN APPLICATION ON THE DETERMINATION OF THE MAIN CONTRACTOR IN DEFENCE PROJECTS

Uğur Özcan, Sermin Ilktürk

In the defence industry sector, where large-scale projects are carried out, it is very important for the project managers to decide the most suitable main contractor considering the administrative, financial and technical criteria. In this study, the proposals received from six defence companies on the market for a project with open tender procedure were analyzed with the TOPSIS method in terms of four main criteria.

Keywords: Defence Industry, Defence Projects, Topsis

AN EDUCATIONAL MOBILE CITY LEARNING APPLICATION FOR KIDS

Mehmet Özcan, Furkan Göz

Along with the development of technology, mobile devices have started to take place in every aspect of life. One of these is entertainment sector thanks to the visual and interactive interface of these devices. However, by their accessibility and ease of use, mobile devices have extremely simplified touching to entertainment which has led to waste of time for people, especially children. It is crucial for children to divert their wasting time to education in terms of their development. That can be viable with turning the education into fun. In this work, we aim to develop a mobile application which enables children to learn about the cities in their country with pleasure. Integrating game and education, this application will ensure the children recognize the historical, geographical and cultural features of the cities. In the game, children start an exploration from a city. They proceed by travelling over cities using a map while they both enjoy and learn.

Keywords: Game Based Learning, Mobile Programming, Learning For Kids

AN ENTERTAINING MOBILE VOCABULARY LEARNING APPLICATION

Furkan Göz, Mehmet Özcan

Learning a foreign language has become a necessity in today's globalized world. While grammar structure of foreign language is learned easily, it is generally a difficult and boring job for people to develop the vocabulary knowledge. At this point it is essential to make learning easy, practical and fun. Beginning to play a substantial role in learning, mobile platforms are utilized for their practicality, portability and dynamism in this context. Moreover, it is viable with a game to turn the learning process into fun. In this work, it is purposed to develop a mobile game assisting people in memorizing the words of a foreign language. It is a kind of word prediction game giving clues according to the user's guesses. In this game, both options are available, either to play with the whole words already in the application or to specify the words used in the gameplay.

Keywords: Game Based Learning, Mobile Programming, Foreign Vocabulary Learning

AN EVALUATION OF EXPORT-LED GROWTH HYPOTHESIS IN DEVELOPING COUNTRIES: THE CASE OF BANGLADESH

Abdulla Hil Mamun, Harun Bal, Tolga Kabaş, Emrah Eray Akça

Export-led growth was popularized during 1970s when many of the developing countries changed their development strategy to export promotion abandoning import substitution and thereby achieved miraculous growth. Bangladesh as well has achieved remarkable economic growth immediately after the inception of trade liberalization and export promotion in late 1970s with an increasing share of export in GDP that has reached to the record high over 19 percent in recent years owing to gradual and continuous economic reforms to support export-substituting industrialization since 1990s. The study applies the ARDL Bounds testing approach to investigate whether the economic growth of Bangladesh is led by exports with special attention to its long-run dynamics covering data for the period from 1974 to 2013. Though the rise in exports has contributed positively to economic growth in the long run, but the absence of unidirectional positive causal relation from exports to economic growth in the short run leads to the rejection of the validity of export-led growth hypothesis for Bangladesh.

Keywords: Export-led Growth, Trade Liberalization, Ardl Bounds Test, Bangladesh

AN INVESTIGATION ABOUT INTEREST AND ABILITY AS PREDICTIVE VARIABLES OF FIELD SELECTION IN HIGH SCHOOLS

Sedat Gelibolu, Mustafa Eşkisu, Zekeriya Çam

The sixth article of National Education Basic Law numbered 1739 states that "Individuals must be directed to various programs or schools in accordance with their interests, skills and abilities during their education", and considering this article high school students should be directed to a field in accordance with their interests and abilities. According to the regulation of secondary education institutions, at the end of the first semester of the 10th grade students have to make field selection. This choice may be influenced by not only psychological factors such as interest and ability; but also socioeconomic level, family expectations, peer pressure, or irrational beliefs. It is necessary to examine to what extent psychological factors such as interest and ability, which should be paid attention more in selecting the field, predict the selection among four types of fields (Science, Social Sciences, Turkish-Mathematics and Foreign Language). In this study, interest and ability levels of the students who are currently studying in the second semester of the 10th grade and who have already selected their field, will be examined as predictive values of field selection which is the dependent variable of study. Thus, a logistic regression analysis will be used to determine which of these variables classifies the field selection more successfully. In addition, an answer will be sought to the question to what extent these two variables predict the decision of field selection. In order to determine the interest, Vocational Domain Interest Inventory developed by Deniz (2008), and as for the ability the achievement grades obtained in the previous semester in the field of the students' courses will be used. The findings will be discussed in the light of the related literature and suggestions will be made to the psychological counselors who work in the schools especially for the career guidance services they can present during the decision making period.

Keywords: Field Selection, Vocational Guidance, Interest, Ability

AN INVESTIGATION OF FOURTH GRADE STUDENTS' STATISTICAL THINKING

Nadide Yilmaz, Sümeyra Doğan

The purpose of this study is to investigate fourth grade students' statistical thinking. It was used children's statistical thinking framework which includes four components. These components are describibng, organizing, and reducing, representing, analyzing and interpreting data. The participants are 175 fourth grade students which studied same school but different section. Five questions were prepared by investigating Jones, Thornton, Langrall, Mooney, Perry and Putt (2000), analyzing learning objective of national primary mathematics curriculum and receiving opinions of experts. The findings of this study showed that fourth grade students had some difficulties about all of the components. In terms of the components, it was indicated that analyzing and interpreting data were unsuccessful than other components. Another findings will be presented at the conference because data analysis process is ongoing. The results of this study may provide important points to construct appropriate learning environments.

Keywords: Statistical Thinking, 4th Grade Students

AN INVESTIGATION OF LEARNING APPROACHES AND LANGUAGE LEARNING STRATEGIES: ARE THEY RELATED?

Tolga Erdogan, Emrah Ozdemir

In related research, learning approaches and learning strategies have been reported as important variables influencing the quality of student learning. The aim of the present study is to investigate the possible relationship between the learning approaches and the language learning strategies of higher education students. The research was conducted with the participation of 493 freshmen (M=257, F=236) attending various departments at Balikesir University in Turkey. For research purposes, the Turkish versions of Strategy Inventory of Language Learning (SILL) and the Approaches and Study Skills Inventory for Students (ASSIST) were used. After the reliability of both instruments were computed, descriptive and inferential statistics were used to analyze data. The findings are to be discussed and commented considering students' levels of language learning strategy use and their learning approaches, variations in strategy use according to learning approaches, changes according to participants' gender and major of study. In accordance with the results obtained, appropriate directions and implications for future practice are to be formulated in conclusion.

Keywords: Learning Approaches, Language Learning Strategies, Gender, Grade Level, Area Of Study

AN INVESTIGATION OF MATHEMATICS ANXIETY OF STUDENTS STUDYING AT REGIONAL BOARDING PRIMARY EDUCATION SCHOOLS

Adem Duru, Resul Göl, Cemalettin Yildiz

With the introduction of the 8-year compulsory education in Turkey, Regional Boarding PrimaryEducation Schools (YIBOs), which are located in rural areas and where children of disadvantaged families have studied, gained importance, their number increased in the 2000s and they still function in many parts of the country. There are many factors that influence mathematical achievement of students and maths anxiety is one of them. Hence, studies carried out in the field of mathematics education have also indicated that mathematics anxiety affects the success of students. Many students avoid math activities because of fear and fear of making mistakes and failing in mathematics. In addition, studies have shown that students with mathematics anxieties also keep themselves away from math-related professions. Therefore, in this study, it is investigated whether the math anxiety and math anxiety levels of students who are studying at YİBO change or not according to their genders. The Mathematical Study and Test Anxiety Scale (MSTAS) developed by Duru (2016) was used as a data collection tool in the research. Sample of the study consists of 201 students, of which 91 are girls and 110 are boys, who are studying at a YIBO in Kahramanmaras. Arithmetic mean values were used to determine the levels of math anxiety. In the five-point Likert-type scale, the points below 2.60 which is the upper limit of 2nd degree are considered as low anxiety, between 2.61-3.40 as intermediate level anxiety, and between 3.41-5.00 as high level anxiety. In the analysis of the data, "t" test was used for the independent samples to determine whether the arithmetic mean ( ), standard deviation (SS) and math anxiety change or not according to the gender and the significance level was taken as $p < 0.05$. As a result of the data analysis, it is seen that the students who are studying at the YİBO have low level of anxiety while studying both mathematics and taking mathematics exams. It was also found that there was no gender effect on mathematics anxiety. In other words, there was no statistically significant difference between male and female students' math anxiety.

Keywords: mathematics anxiety, mathematics exam anxiety, Regional Boarding Primary Education School (YIBO)

ANALYSIS OF VALUE PERCEPTIONS OF MIDDLE SCHOOL STUDENTS IN TERMS OF DIFFERENT VARIABLES

Özkan Akman

Values can be taught and learned. Mankind does not come to earth knowing their values. The fact that values are different from society to society indicates that it is a learned behavior change. For this reason, values are an education subject before anything else. The Social studies Curriculum, which aims to raise an effective citizen, gives priority on acquirements in values education of individuals. This education does not only consist of lectures given in schools. It should also be supported by extracurricular activities. This study has been conducted in order to determine the effectiveness of values education gains of middle school students in terms of different variables. The survey was conducted with 686 participants. The participants consisted of 320 women and 366 men. The data of the study were made by using the scale of values developed by the researcher. The data were analyzed using the SPSS 22.00 package program. Significant results were obtained in favor of men as patriotism, flag values and gender variables in consideration of the data obtained from the research. There was also a significant difference in favor of senior classes among students at different levels. Significant differences were found in favor of women in the values such as responsibility, courtesy, discipline and observance of norms.

Keywords: Values, Social Studies Curriculum

APPLICATIONS AGAINST MOLD GROWTH IN YOGHURT PRODUCTION

Seda Altuntaş

Molds cause many food products to deteriorate due to their ability to grow in a very wide pH range (pH 1,5-9), storage temperature (0-35 °C) and water activity (aw: 0,61 and above). Milk and dairy products are high-value foods and have the proper environment for many microorganisms to survive. Yoghurt is a fermented dairy product that has been consumed all over the world, proven by clinical trials on health effects. Yoghurt contains all the ingredients necessary for human nutrition because of the further concentration and the conversion into metabolic products beneficial to human nutrition by lactic acid bacteria. It is rich in protein, calcium, phosphorus, B1 (thiamine), B2 (riboflavin) and B12 vitamins. Yoghurt also contains more folic acid, niacin, magnesium and zinc than the milk. Yogurt proteins are high in biological value and rich in essential amino acids. The digestibility of milk is very high in yoghurt as it reaches 99% for this reason the value of this product is increasing. It is known that yoghurt, which has a very important place in our diet, is more suitable for contamination with mold and yeast than bacteria due to its acidic pH value. This situation shows the necessity of protective applications against mold and yeast growth in yoghurt production. This paper examines the practices and mechanisms of action against mold growth in yoghurt production in our country and around the world.

Keywords: Yoghurt, Mold Growth, Protective Applications, Mechanisms Of Action

APPROXIMATE SOLUTION OF POTENTIAL KDV EQUATION BY REDUCED DIFFERENTIAL TRANSFORM METHOD

Turgut Ak

By making use of reduced differential transform method, the potential Korteweg-de Vries (p-KdV) equation is analysed. The topological (dark) soliton solutions are investigated computationally for the equation using RDTM. These solutions are going to be extremely useful and desirable for explaining various other nonlinear physical phenomena in genuinely nonlinear dynamical systems.

Keywords: Potential Korteweg-de Vries (p-kdv) Equation, Reduced Differential Transform Method

ART MUSEUMS AS NEW LEARNING ENVIRONMENTS IN ART EDUCATION

Mine Can

In the 21st century, changes which are taking place in the fields of communication and information depending on scientific and technological developments have affected social and cultural life. Along with globalization, the borders have been reduced at the national level and the interdependence of international underground countries has increased steadily. Therefore, education has also been influenced by the changes and changes that have taken place in every sense. Our education systems have become a big industry that determines the future of the countries. Universities in advanced countries, lifelong learning, the educational effects of different learning environments are discussed and serious studies are being carried out on the continual organization of education programs and the selection of useful information to be taught. Especially museum education is included in curriculum within the scope of preserving historical and cultural values in art education. In this century, museums are regarded as a widespread educational institution that transfers cultural and informatics gatherings, as well as the tasks of gathering, preserving, exhibiting and documenting works among the main tasks of traditional museum, as well as making it fun to train and learn. Today, with the rapid development of technology and the widespread use of the internet, our life has become virtual reality. In addition to the traditional museology understanding, the modern museums that change this pace serve virtually through web pages. Today, thanks to technology, a museum on the other side of the world can be visited virtually, and its collections can be examined. Thus, the accumulation that an museum possesses is not only the society to which it belongs, it is the service of the world as a cultural heritage. When evaluated in this respect, with the development of information technologies, the one who is a source of information has stepped forward in terms of the role they play and has been recognized as a new learning environment in education. When examining the virtual applications of modern museums in Europe and North America, it is clear that museum halls in the 21st Century are far beyond the digital environment. These museums, which have adopted the concept of modern museology in a real sense, serve as a real educational complex. It works like a library with digital archives and provides information and document services to researchers and organizes training programs in cooperation with educational institutions. In our country, art education is carried out within the framework of theoretical knowledge and practical studies related to art education between educator and educated individual. However, classroom walls have been lifted for students in art education in the globalizing world. In order to base the artistic and cognitive developmental process on solid basis, cooperate closely. These trainings can be in the form of workshops within a program, as well as effective methods and techniques such as improvisation, exploration and discussion, seminars, photographs and film shows to introduce artistic heritage in the museums and to make artistic evaluations.

Applied trainings are held in appropriate exhibition halls or workshops where they can be taught, structured in such a way as to present their historical and cultural accumulation in the most realistic and most natural way possible. Trainings are given within the framework of subject titles based on art history, artistic approaches, period features or cultural characteristics, and verbal trainings are complementary to applied trainings. The artists are invited to the seminars and workshop trainings which are given for the art formations to freely express their thoughts and feelings and the experiences of the students to perceive the meaning and value of the works in the museums are being lived with mutual conversations. Looking at the new developments in the field of art education in the 21st century, it is seen that the main point of the solution process of the problems in the field of art education in our country is the development of the interdisciplinary point of view. For this reason, it is considered that the artists will make a meaningful difference in order to increase the quality in art education. To this end, the issue will be addressed in terms of the necessity of the museum as a new educational environment for arts education and the benefits for a qualified arts education. The study will be accompanied by information from the literature and examples from the educational practices in European and North American art museums. Other aims of the study are to draw attention to the importance of the utilization of information technologies, which are one of the most effective approaches in overcoming these problems, in the solution of the problems encountered in the field of art education of the Turkish education system.

Keywords: Education, Museum Education, Art Education.

ASSESSING THE ACCURACY OF ARTIFICIAL INTELLIGENCE AND MLR MODELS IN ESTIMATION OF ROAD TRANSPORTATION ENERGY DEMAND IN TURKEY

Zeynep Ceylan, Selim Ceylan, Serol Bulkan

Road transportation is an important factor for social and economic development. Turkey's rapid economic development, industrialization, increasing population and accelerating urbanization yield in increase in demand for transportation. As a result, the share of energy demand in the economy is increasing. Therefore, prediction of this energy demand is critical. In this work, different artificial intelligence models were assessed to predict road transportation energy demand of Turkey. For this purpose, General Regression Neural Network (GRNN), Modular Neural Network (MNN), Multi Layer Perception (MLP), Adaptive Neuro-Fuzzy Inference System (ANFIS), Principal Component Regression (PCR), and Multiple Linear Regression (MLR) models were used. Models were established by using annual number of land vehicles, population, gross domestic product (GDP), and annual vehicle-km as parameters for calculations. The data between 1973 and 2013 were used for training (70%), validation (15%) and testing (15%) of model. Models were compared depending on their R2, RMSE and MAE values. The model with best accuracy was used to predict energy demand of Turkey due to transportation in 2020 for different scenarios.

Keywords: Energy Demand; Prediction; Grnn, Mnn, Mlp, Anfis, Pcr, Mlr

ASSESSING THE EFFECT OF DESIGNING INSTRUCTIONAL VIDEO GROUNDED ON COGNITIVE THEORY OF MULTIMEDIA LEARNING ON LEARNING OUTCOMES IN AN ONLINE COURSE

Rebecca Callaway

This study assessed the effect of instructional video design based on the Cognitive Theory of Multimedia Learning (CTML), and student learning outcomes. A three-group pretest-posttest design was employed to assess whether there were significant differences in students' test scores after watching an instructional video in an online course. The ANCOVA analysis indicate that instructional design had a significant effect on students' learning outcomes. This effect was demonstrated by a statistically significant difference in students' learning outcomes, with the highest scores achieved by students in the segmented and signaled video group and the lowest scores in the no segmentation and no signaling group. These findings suggest that the use of educational video in online courses has the potential to effectively improve students' learning outcomes; however, it requires design manipulation.

Keywords: Video, Online, Multimedia, Technology, Segmentation, Signaling

ASSESSMENT OF THE ROUTE OF THE ANCIENT OTTOMAN AQUEDUCT WITH THE AID OF GEODESIC AND ROBOTIC METHODS

Doğan Savran, Gürkan Tuna, Mehmet Kabakan

In this paper, we present a novel approach to assess the route of the ancient Ottoman Aqueduct. The approach we present is based on the use of an autonomous mobile robot and a set of geodesic methods. While the mobile robot is responsible for exploring and mapping of the route, geodesic methods are used to improve the route assessment process and minimize possible mapping errors. A set of performance evaluations is presented to prove the efficiency of the proposed approach.

Keywords: Aqueduct, Route, Surveying, Mapping, Mobile Robot

AUGMENTED REALITY APPLICATION USING IN MARKETING EDUCATION AND A RESEARCH

Nevin Karabiyik Yerden, Aytac Ugur Yerden

Aim of this study, is to measure the effect of augmented reality applications on marketing education. Augmented reality is new technology that combitanion virtual world with real world. AR Aplications are used different sectors, for instance health, education, retailing, communication etc. Especially in the field of education, it is regarded as an important technology that helps teach the subjects and help participants learn better. In this study, the effectiveness of AR application in marketing education is investigated. Experiment method is used on research. This study is researhed on marketing department students in Marmara Universty. We have selected topics of brand management course of marketing department and develop to AR apllication about topics of brand managements course. Subsequently we have experimented on students and have measuremed success of their.

Keywords: Marketing Education, Augmented Reality

AUTOMATICALLY ASSIGNMENT OF BUSINESS PROCESSES MANAGEMENT IN CRITICAL FINANCIAL SYSTEMS

Mehmet Vacit Baydarman, Bariş Koçer

In critical financial systems, business process management (BPM) is very important. Large investments are made in business process management to bring customer satisfaction to the upper levels. BPM tools that are purchased or developed are used for this. These tools, which solve many problems between users and customers, generally have the same characteristics. In this study, an automatic assignment model was developed in order to increase the efficiency, accelerate the processes and move the customer satisfaction to the upper levels. This model was integrated into a BPM tool used on a 7000-user master banking application with a 3-tier architecture serving 400 branches and the results were analyzed. In order to increase the accuracy of the analysis results, the one-year manual transaction data before integration was compared with the one-year automatic transaction data after the model integration. The error rate and the execution time of the system are analyzed in order to see the effects of the developed model. In addition, the number of transactions carried out for 2 years is taken into account. This model is based on customer and process parameters. For determining and scoring the significance of these two parameters, the AHP technique, which has been held regularly since 2001 and used for many scientific articles, has benefited. In this way, ranking can be done by establishing a point relation between the customer and the process. It has also benefited from RFM Analysis, which is widely used to analyze customer value, which has great proposition in the professional services sector. With the help of this analysis, the transactions performed by the customers are evaluated in terms of the up-to-date, frequency and amount and the score is produced. These two methods determine and prioritize the most important processes and customers. A state management mechanism has been established for users who will perform customer transactions, which facilitates compliance determination and helps alleviate the burden of busy users. It is also possible to determine which user is responsible for what kind of work with the process-user competence map. This model, where exemptions are managed and detailed reports can be obtained, provides great benefits in terms of customer satisfaction, number of staff employed, process performance and provides great competence for BPM tools.

Keywords: Bpm, Rfm Analysis, Business Process Management, Automatic Assignment, Ahp Technique

AUTONOMY VS. STANDARDIZATION IN HIGHER EDUCATION

Zoltan Zakota

One of the main objectives of the Bologna Process is the increase and promotion of student and staff mobility. This feature helped both staff and students from Central and Eastern European countries, by joining the Erasmus and the following Erasmus+ programmes, to gain lots of experience in the field and to widen their perspectives. The other major achievement is the standardization of education and diplomas through the European Credit Transfer System. Although the results of these processes are clearly visible, lots of voices can be heard, especially in the last decade, against them, usually arguing on the basis of national specificity and tradition. They claim back a “traditional” institutional autonomy which de facto did not exist for at least a century. In many cases, this is obviously just a rhetorical expression of some political groups trying to eliminate transparency and accountability of higher education institutions. The aim of my paper is to touch upon the internal and external factors that determine these processes. I try to find some means by which these two key elements of the higher education could coexist in the future and contribute to the strengthening of the European unification process. In the analysis I use national and European Union official data, unofficial estimates of professional circles and my experience of many years in higher education.

Keywords: University Autonomy, Standardization In Higher Education, Bologna Process

AWARENESS IN RECYCLING BEHAVIORS OF CANDIDATE TEACHERS: A STUDY OF SCALE DEVELOPMENT

Eyüp Artvinli, Vildan Bayar, Irfan Terzi

In this research, "Scale of Awareness on Recycling Behaviors" was developed in order to determine recycling behaviors and recycling awareness of candidate teachers. For this purpose, the relevant literature was searched during the scale development process and it was decided to write the items of the scale under two dimensions. Despite studies on recycling behaviors in other countries, studies in Turkey are very few. After checking of the literature 46 items were created with 5-likert type in the form with two dimensions: Recycling Awareness and Awareness Results. When developing the scale, it was noted that all the items were simple, clear and had no more than one judgment. In order to ensure that these items are available in the language and coverage, three science educators have been presented to 12 experts, including three measurement and evaluation expert, two physics, a geography educator, a chemistry, a biology and a Turkish language educator. In accordance with expert opinions, 4 items were added to 7 items by adding 4 items to personal information and variables. Thirteen items, which are thought to be meaningless in terms of meaning and which do not reflect recycling behaviors, were identified and removed by experts and a scale test form was formed on the 33-item Likert type. In the fall semester of the 2016-2017 academic year, the measurement test form is composed of the first grade (N = 1), the second grade (N = 119), the third grade (N = 80) and 4th grade (N = 67). These teacher candidates were identified by appropriate sampling method that is not random. The obtained data were analyzed with SPSS package program. Factor analysis is applied to reduce the number of items and to determine the hidden items underlying the items. In order to determine the construct validity of the "Recycling Behavior Awareness Scale", the data were analyzed by exploratory factor analysis. The reliability of the scale was examined by the Cronbach-alpha internal consistency coefficient. As a result, 5-Likert-type "Recycling Behavior Awareness Scale" consisting of 2 dimensions, 10 items containing personal information and 29 items consisting of 13 negative and 16 positive were developed.

Keywords: Recycling, Recycling Behaviors, Scale Development, Validity, Reliability, Science Teacher Candidates.

BATTERY AND ULTRACAPACITOR MODELING AND EXPERIMENTAL ANALYSIS USED IN HYBRID ENERGY STORAGE SYSTEMS

Yağmur Kirçiçek, Ahmet Aktaş, Özcan Atlam

Renewable energy sources are intermittent and incessant sources. For this reason, the battery and ultracapacitor hybrid energy storage system can be used to ensure the continuity of the energy, enabling more efficient use of renewable energy sources. With the hybrid energy storage system consisting of battery and ultracapacitor, the aim is to maximize the life and storage capacity of batteries and to minimize the charge/discharge cycle. Accurate modeling of the battery and ultracapacitor elements and determination of the parameters with low error rates ensure safe operation of electric vehicles and intelligent network systems. In experimental studies, battery and ultracapacitor were charged/discharged and data were taken for modeling equations. Modeling studies were performed using Matlab/M-file program. The purpose of this study is to determine the battery and ultracapacitor parameters with the lowest error rates by doing modeling studies of these energy storage units.

Keywords: Hybrid Energy Storage, Battery, Ultracapacitor, Modelling.

BILECIK COMMUNITY CENTER AS ONE OF THE EARLY REPUBLICAN PERIOD CULTURAL INSTITUTIONS AND ITS ACTIVITIES (1932-1951)

Mehmet Korkud Aydin

As it is already well-known, many revolutions were made in political, social, cultural and economic fields after the declaration of the Republic in Turkey. A new learning and cultural institution for he community was needed in order to make republican values and the revolutions be adopted and internalized by wide masses. For this purpose, the Community Centers, which were designed as the cultural institutions of Early Republican Period, were established as 9 branches on February 19, 1932. Bilecik Community Center, which could not complete the procedures for opening on February 19, 1932, was opened on June 24, 1932, and started its activities as 8 branches. Aviation Officer Senior Captain Yahya Güven was elected as the President of the Community Center. Then, Ali İpek, Cemal Sezgin and Nurettin Atasayar were appointed respectively as the presidents in further years. Bilecik Community Center started its activities in a multi-purpose facility in which the Institution for Protecting Children was also located since 1926, and was moved to its new building with a hall for 500 people in 1945. Bilecik Community Center served the community to increase the education and culture level of the people with its nine branches since the very day it was first established until 1951. These branches were Language, History and Literature, Fine Arts, Theatre, Sports, Social Aids, Public Training Centers and Courses, Library and Publishing, Peasantry, and Museums. The activities run by these branches were organized under the supervision of the Secretary General of the CHP (Republican Peoples' Party). One of the important activities of Bilecik Community Center was the publishing works, and the first issue was named as the Voice of the Revolution, which was released on February 23, 1936. The Community Centers of Bozüyük, Söğüt, Yenipazar, İnönü, Osmaneli, Gölpazarı and Pazarcık were also opened in further years. In this study, the Literature Review Method has been adopted as the research model. The documents in the R.T. Prime Minister's Office Republican Archives, and the findings that were obtained as a result of the review of the national and international press were evaluated in the study.

Keywords: Revolution, Community Center, Bilecik, The Voice Of Revolution.

BIOLOGICAL ACTIVITY OF MODIFIED CURCUMIN ON LEISHMANIA DONOVANI PARASITES

Adel Hidmi, Abedelmajeed Nasereddin

Visceral Leishmaniasis (VL) and cutaneous Leishmaniasis (CL) are severe diseases which result from the causative agents of the Leishmania parasite, usually transferred through the bite of a sand fly. A parasitic infection reported mostly in temperate and tropical regions of the world, Leishmaniasis may progress and lead to severe health complications. Anti-Leishmanial drugs such as pentavalent antimonials and Amphotericin B, have been widely used in endemic regions. However due to rising costs, concerns of toxicity, and the emergence of parasitic resistance to such drugs, the need for safer and less expensive alternatives is highly discussed. Being of interest in many recent studies, natural polyphenolic compounds have been found to possess therapeutic powers in the treatment of a vast range of diseases. Curcumin, the main component of turmeric (rhizomes of the Curcuma longa plant) has been well documented for its medicinal properties in ancient Indian and Chinese systems of medicine. Used commonly as a spice, the polyphenolic curcumin has been attributed a variety of therapeutic characteristics such as anti-inflammatory, anticancerous, antimicrobial, and antiviral properties [1-3]. The diarylheptanoid structure of curcumin presents the basis for a variety of different chemical modifications which may be carried out, giving the molecule new identity and possibly enhanced biological activity [4]. In the current study, the anti-Leishmanial as well as antibacterial activities of modified curcumin were observed and compared to

those of nonmodified curcumin. Under in vitro conditions, the modified curcumin was found to possess stronger activity than the original structure. Exhibiting low cell toxicity, the modified natural compound may therefore serve as a promising alternative to the currently used drugs and continues to be researched in further related studies.

Keywords: Anti-leishmania, Curcumin, Biological Activity, Modified Natural Compound

BLENDING MODERN TEACHING METHODS AND INFORMATION TECHNOLOGY TOOLS IN UNIVERSITY-LEVEL COURSE DEVELOPMENT

Raid Zaghal, Muhammad Zayyad

Recent research in modern education shows that there is a widening gap between teachers (instructors) and learners (students) both in school and university levels in terms of effective teaching methods and the use of information technology and modern technological tools (and thus the skills needed to use these tools) [Levin & Arafeh, 2002]. Most of the educators and university professors in the Arab world are still using old, traditional, and obsolete teaching methods and they use technology (if at all) in basic, primitive ways [Baqutayan, 2011]. Therefore, there is a pressing need to find ways to (i) develop the teaching methods to become in-line with modern and effective methods that promotes critical-thinking, student interactive involvement, and collaborative learning, and (ii) bridge the gap between teachers and students in using modern technology tools since the latter group are usually more skilled and more aware of these tools. In this paper we will address both issues as we will document and evaluate our experience in organizing a seminar for our colleagues at Al-Quds University in Jerusalem – the only Arab University in Jerusalem – which we named 'Instructional Design and Course Development'. The seminar, which was supported by a grant from the US Agency for International Development (USAID), was attended by thirty lecturers from the University and lasted for a complete academic year with 75 actual hours of training and intensive workshops. The main goal of the seminar was to expose the participants to modern teaching methods and how to integrate information technology and e-learning tools in the instructional design and teaching process. The participants were selected carefully from a diverse set of backgrounds, levels, and specialties in both humanities and scientific disciplines. During the seminar sessions, which was held once every week, the participants had a chance to learn, discuss, evaluate, and implement these strategies hand-on within workshops during the seminar meetings and with their students afterwards (in real courses). After implementing the year-long program, we performed a scientific evaluation by asking the participants to provide feedback by filling forms and conducting personal interviews. The evaluation results were surprisingly excellent; they showed that by engaging in new teaching methods and integrating them with technology tools (e.g. the Moodle and Smartphone apps), students were able to learn and think more independently, teaching became more productive, meaningful and fun.

Keywords: Blended-learning, Instructional Design, Course Development, Interactive-learning, Modern Teaching Methods

CAN NON-MAJOR PRE-SERVICE SCIENCE TEACHERS LEARN THERMODYNAMICS USING COGNITIVE LOAD THEORY?

Nesli Kala

As Cognitive Load Theory (CLT) provides some principles related to how to design multimedia (Sweller et al., 2003), its popularity has been increasing. CLT advocates which working memory have limited capacity and indicates that if it overloaded, learning would be affected negatively (Sweller et al., 1998). In this study, we examined the learning effect of a software design for CTL on the Non-major Pre-service Science Teachers(NPST)' understanding in regard to Pre-service Science Teachers(PST). The students individually learned basic thermodynamic concepts from educational software (Kala, 2012) in a computer lab.
In this study experimental research model was used. Data instruments included Thermodynamics Academic Achievement Test(TAAT), Cognitive Load Scale (CLS) and Retention(RT) and Transfer Tests(TT) tests. While TAAT was implemented to determine the equivalence of the groups, CLS was used to determine how big mental effort. The RT was used to measure how much of knowledge learned was remembered after the teaching process and TT was used to determine how much of this knowledge was transferred to different situations. The sample consisted of 48 pre-service teachers who enrolled in an education faculty of a public university in Turkey. The results of this showed that the group independent variable had a statistically significant effect on the RT, TT and CLS points, but these differences arise from the transfer test. None of the student in the NPST were able to answer correctly to the far transfer questions which can be solved using the information in the Physics course. When we considered that these students could have not taken any Physics Course, this result may not be surprising. In addition to, the students in the NPST group were able to learn as much as students in the PST group difficult subject such as thermodynamics in the retention level despite of having not prior knowledge.

Keywords: Cognitive Load Theory, Thermodynamic, Educational Software, Non-major Pre-service Science Teachers

CELLS BASIS FOR THE METHOD OF DIFFERENTIATION OF TISSUE WITH USING MINI-Γ-QUANTUM IRRADIATION

Volodymyr Sulyma

Well known cell enters cell cycle under the influence of special chemical signals such as hormones, cytokines, and growth factors that bind to correspondent transmembrane receptors on the cell membrane. This extracellular signal transmits via membrane and triggers the intracytoplasmic cascade of reactions of tyrosine kinase phosphorilation - intracellular signalling. In the end of this complex pathway the nucleus receives the signal that creates the expression of growth regulatory genes including myc, fos, jun, and pushes the cell to S stage of the mitotic cycle. Mutation in the genome of somatic cell ultimately leads to activation of growth-promoting oncogenes, alterations of apoptosis-regulated genes, and cancer-suppressor genes with expression of altered genes products and loss of regulatory gene products. The molecular mechanisms by which oncogenes initiate and stimulate tumor growth are: (1) overproduction of the growth factors, (2) increased density of the growth factor receptors on the cell membrane, (3) mutation of the transducer mechanisms, and 4) mutation of the transcription factor. The γ-quantum is absorbed at the expense of the characteristic irradiation of microelements in normal and pathological tissues – new speed of method for differential diagnostic of pathological processes: chronic anal fissure and rectal tumors. The studies of biopsy material after operative intervention for rectal diseases (chronic anal fissure, polyps and adenocarcinoma), through registration of coefficients of absorbed at the expense of the characteristic irradiation of microelements on entrance intensive γ-quantum 10 kHz, tissue for

energy 59,6 keV – 5 mm, for energy 17 keV – 5 mm, for energy 5,9 keV – 1 mm, time of registration 60 sec. The different of absorbed at expense low level energy γ-irradiation of cells rectal tissues had universal of characteristic and basis for early of differential diagnostic of pathological processes.

Keywords: Cells Basis, Differentiation Of Tissue, Irradiation

CHANGES IN THE LEVELS OF LIVER HSP70, PLASMA NITRIC OXIDE, AND ANTIOXIDATIVE SYSTEM IN EXPERIMENTALLY INDUCED ENDOTOXEMIA MOUSE MODEL AND THE ROLE OF REDUCED GLUTATHIONE

Temel Ilgün, Kezban Yildiz Dalginli, Canan Gülmez, Onur Atakişi

Endotoxin molecule in lipopolysaccharides is one of the most importanat molecules that initiates a cascade of events in sepsis/endotoxemia. Lipopolysaccharide exposure may result in strong immune responses; disrupt intracellular oxidant/antioxidant balance, cause excessive reactive oxygen species generation. The purpose of the study was to examine if reduced glutathion has a protective role against lipopolysaccharide. The effects of lipopolysaccharide or GSH alone, or in combination of these on the levels of plasma antioxidant system, NO, and liver HSP70 were investigated. A total of 100 Swiss albino mice were divided into 4 groups Group I (control), Group II (20 µg/kg LPS), Group III (10 mg/kg GSH) and Group IV (20 µg/kg LPS + 10 mg/kg GSH). Blood and liver samples both pre- and post-LPS and/or GSH injections after 1, 3 and 6 hrs were collected. Total antioxidant capacity was demonstrated a reduction in response to lipopolysaccharide. Total oxidant capacity was higher after the injection lipopolysaccharide alone or in combination with GSH. NO levels were elevated in response to lipopolysaccharide. Liver HSP70 level was determined to be higher in lipopolysaccharide tretaed group. These results indicate that exogenously given GSH may have regulatory effects on liver HSP70 and plasma NO levels, and GSH treatment might have beneficial effect on the antioxidant status by inhibiting the increase of oxidant molecules in an endotoxemia induced mouse.

Keywords: Antioxidant System, Endotoxemia, Heat Shock Protein, Nitric Oxide, Reduced Glutathione

CHILDREN'S CHESS ANALOGIES

Gökhan Güneş, Belma Tuğrul

Play has vital and critical impacts on children’s development. The benefits of the play can listed such as developing creativity, imagination power and developing physical, cognitive, and emotional strengths. Children learn so many things (rules, science, mathematics, etc.) by the help of the games. Chess is also an enjoyable game for most children. In many countries including; Russia, Venezuela and Iceland; chess is part of the curriculum in all public schools. The purpose of this study examine the children’s chess analogies and categorize these analogies by type. The study was carried out with 87 five year old children (42 girls and 45 boys), from a public preschool in Ankara, during the spring of 2015-2016 academic year. Within the scope of the study, children were asked that compare the game of chess/playing chess with their daily life. Nearly 80% children can make an analogy between chess/ playing chess and the life (17 children could not make an analogy between chess and life). Analogies in this study consist of three categories, these are functional, structural and casual analogies.

Keywords: Early Childhood Education, Chess, Analogy

CLASSIFICATION OF QUESTIONS AND LEARNING OUTCOME STATEMENTS (LOS) INTO BLOOM'S TAXONOMY (BT) BY SIMILARITY MEASUREMENTS

Shadi Diab, Badie Sartawi

Bloom's Taxonomy (BT) is used to classify the objectives of learning outcome by dividing the learning into three different domains; the cognitive domain, the effective domain and the psychomotor domain, in this paper, we introduce a new algorithm to classify the questions and learning outcome statements (LOS) into Blooms taxonomy (BT) and to verify BT verb lists, which are being cited and used by academicians to write questions and (LOS). An experiment was designed to investigate the semantic relationship between the action verbs used in both questions and LOS to obtain more accurate classification into levels of BT, A sample of 775 different action verbs collected from different universities allows us to measure an accurate and clear-cut cognitive level for the action verb. It is worth mentioning that natural language processing techniques were used to develop our rules as to induce the questions into chunks in order to extract the action verbs. Our proposed solution was able to classify the action verb into a precise level of the cognitive domain. We, on our side, have tested and evaluated our proposed solution using confusion matrix. The results of evaluation tests yielded 97% for the macro average of precision and 90% for F1. Thus, the outcome of the research suggests that it is crucial to analyze and verify the action verbs cited and used by academicians to write LOS and classify their questions based on blooms taxonomy in order to obtain a definite and more accurate classification.

Keywords: Learning Outcome; Natural Language Processing, Similarity Measurement; Questions Classification ; Learning Outcome Classification

COMPACT TRI-BAND FILTER USING CONTIGUOUS ELECTRICAL COUPLED RECTANGULAR OPEN LOOP RING RESONATORS

Emad Shehab Ahmed

A compact microstrip tri-band bandpass filter is proposed. The filter consists of two contiguous electrical coupled Open Loop Rectangular Ring (OLRR) resonators structure. Tri-bands can be excited and designed using a proper arrangement between the proposed resonators structure and a parallel coupled 50-Ohm symmetric feeds structure. The filter is synthesized using substrate with 3.5 relative dielectric constant and thickness of 1.5 mm. The dimensions of the filter are optimized using the full wave Electromagnetic simulator. Three transmission bands for Worldwide Interoperability for Microwave Access (WiMAX) and Wireless Local Area Network (WLAN) applications at 3.425 GHz, 4.3 GHz, and 5.725 GHz are observed. The transmission bands are accompanied with four transmission zeros which provide skirt shapes around the transmission bands which improve the frequency selectivity of the filter. To enhance the out-of-the- band spurious rejection of the proposed filter, transmission zero at 8.85 GHz was created by adding stub in a selected location on the feed structure. The length of the loaded stub was the quarter guided wavelength of the selected frequency location. The proposed filter also has advantages as low insertion loss, simple profile and miniature size. The overall dimension of the proposed filter is 23.6mm x 20mm (0.42λ_g×0.36λ_g, where λ_g refers to guided wavelength at 3.425 GHz. The measured frequency response of the OLRR based tri-band filter was in good agreement with the simulated one which validates the feasible configuration of the proposed filter.

Keywords: Microstrip Filter, Open Loop Rectangular Ring Resonator, Tri-band Filter, Electric Coupled Resonators

COMPACT TRI-BAND PARALLEL COUPLED SIR BASED Y-SHAPED BANDPASS FILTER FOR WIMAX AND WLAN APPLICATIONS

Emad S. Ahmed, Kubilay Tasdelen

In this study, a new compact tri-band bandpass filter was introduced. The filter utilized three operating bands centered at 1.8 GHz, 3.6 GHz, and 5 GHz with return loss of -33.8 dB, -26.9 dB, and -18.1 dB respectively. These bands are widely used for worldwide interoperability for microwave access (WiMAX) and wireless local area network (WLAN) applications. Y-shaped step impedance resonator structure is used to resonate at the designed frequencies. The operation mechanism of the filter can be analyzed by an even- and odd-mode transmission line theory as the structure is an even symmetrical around electrical or magnetic wall. The resonator structure is parallel coupled with a pair of 50 Ω input/output ports. The coupling structures can realize at least two transmission zeros around each of the operating band by proper inter-coupling between the feeding and the filter resonator. The filter is designed on substrate of 10.8 dielectric constant and 1.27 mm thickness. The filter is analyzed and optimized using the full wave Electromagnetic simulator. Five transmission zeros are exist at 0.1, 1.38, 2.3, 4.66, and 6.8 GHz with transmission loss of -44.2, -57.9, -44.3, -67.9, and -38.4 dB respectively. These zeros provide a good out of the band spurs rejection. The center frequency of the designed bands can be easily refined by the filter dimensions. The overall dimension of the filter is (where is the guided wavelength at the lower frequency band of 1.8 GHz) corresponding to 27.3 mm x 30 mm.

Keywords: Sir Resonator, Microstrip Bandpass Filter, Wlan Applications, Wimax, Tri-band Filter.

COMPARATION OF THEORETICAL PROPERTIES OF 3-METHYL-4-(3-BENZOXY-4-METHOXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE MOLECULE

Şule Bahçeci, Gül Kotan, Nuri Yildirim, Haydar Yüksek

3-Methyl-4-(3-benzoxy-4-methoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one molecule was described in the literature (Bahçeci et al., 2016). This molecule was optimized by using the B3LYP/ HF 6-31G (d,p) and B3LYP/ HF 6-311G (d,p) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). This optimized structures used to calculation of the different theoretical properties of the compound. 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09W (Wolinski et al., 1990) Experimental and theoretical values were inserted into the graphic according to equitation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. The veda4f program was used in defining IR data (Jamróz, 2004). IR absorption frequencies were compared with experimental data. Infrared spectrums were composed by using the data calculated. Additionally, bond lengths, dipole moments, the HOMO-LUMO energy, mulliken charges by using the B3LYP/ HF 6-31G (d,p) and B3LYP/ HF 6-311G (d,p) basis sets of this compound were theoretically calculated. Finally, theoretical properties of the compound according to two different basis sets were compared.

Keywords: Giao, 631g (d,p) And 6311g (d,p), Mulliken Charge, B3lyp, Hf

COMPARISON OF ANTIMICROBIAL EFFICACY OF RUMEX PATIENTIA L. LEAFS DIFFERENT EXTRACTS WITH STANDARD ANTIBIOTICS

Perihan Akbaş, Hicran Alkan, Elife Kaya

Rumex patientia L. is a member of the Polygonaceae family, it is a perennial plant which grows up to 2 m in height, which is widely distributed in the fields of middle Anatolia at an altitute of 1050 m. R. patientia possesses laxative, diuretic, antipyretic, wound cure, and antiinflammatory properties. In this study we aimed to investigate antibacterial and antifungal activity of Rumex patientia L. leaves, its leaves was extracted with methanol, ethanol, aceton, pethrolleum ether and water. Its antimicrobial activity was tested by well diffusion technique againist Bacillus subtilis, Bacillus cereus, Escherichia coli, Pseudomonas aeroginosa, Pasteurella multocida, Yersinia enterocolitica, Klebsiella pneumoniae, Staphylococcus aureus bacteria and Candida albicans yeast and standard antibiotics. Best antibacterial activity was found against K. pneumoniae (32mm) by methanol extract The water extract did not effect on any bacteria other than S. aureus (8 mm). Ethanol extract demonstrated on 30, 10, 24, 16, 20, 24, 18, 10 mm inhibition zones respectively, B. subtilis, E. coli, K. pneumoniae, P.multocida, P. aeroginosa, S. aureus, Y. enterocolitica, bakteria and C. albicans fungus. Methanol extract showed 20, 8, 32, 16, 24, 20, 16 mm zone diameters in the same order; while extract did not affect C. albicans. The acetone extract produced 20, 10, 26, 20, 30, 20, 20 mm inhibition zones respectively, but did not affect C. albicans. The petroleum ether extract were observed in the same order; 20, 14, 28, 16, 22, 18, 22, 10 mm inhibition zones and 12 mm on B. cereus.
According to the obtained results, Rumex patientia L. leaf extract has antibacterial and antifungal activity. When compared to standard antibiotics, it was found lower than erythromycin, but the ethanol extract was effective on B. subtilis (30mm), the methanol extract on K. pneumoniae (32 mm), and the acetone extract on P. aeroginosa (30mm) like penicillin antibiotic.

Keywords: Rumex Patientia L. Leaf Extracts, Antibacterial, Antifungal.

COMPARISON OF THEORETICAL AND EXPERIMENTAL PROPERTIES OF 3-METHYL-4-[2-(4-NITROBENZOXY)-3-ETHOXY-BENZYLIDENEAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

Faruk Kardaş, Hilal Medetalibeyoğlu, Haydar Yüksek

In this study, 3-methyl-4-[2-(4-nitrobenzoxy)-3-ethoxy-benzylideneamino]-4,5-dihydro-1H-1,2,4-triazol-5-one (Yüksek et al., 2015) was optimized by using the B3LYP/6-31G (d,p) and HF/6-31G (d,p) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09 (Wolinski, Hilton, Pulay, 1990). Experimental and theoretical values were inserted into the grafic according to equatation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. IR absorption frequencies of this compound were calculated by two methods. The veda4f program was used in defining IR data which were calculated theoretically (Jamróz, 2004). Furthermore, theoretical bond lengths, UV-Vis values, dipole moments, Mulliken atomic charges, HOMO-LUMO energies, total energy of 3-methyl-4-[2-(4-nitrobenzoxy)-3-ethoxy-benzylideneamino]-4,5-dihydro-1H-1,2,4-triazol-5-one has been investigated. The spectroscopic and structural data of this compound has been calculated by using 6-31G (d,p) basis set with density functional method (DFT/B3LYP) and Hatree-Fock method (HF) and compared with experimental values.

Keywords: 4,5-dihidro-1h-1,2,4-triazol-5-on, Giao, B3lyp, Hf, 6-31 G(d,p)

CONCEPT MAP PREPARATION STATUSES OF PROSPECTIVE MATHEMATICS AND BIOLOGY TEACHERS: A COMPARISON STUDY

Rezan Yilmaz, M. Handan Gunes

A concept is the abstract and general design of objects and thoughts in our minds. One of the significant objectives of the process of education and training is to ensure that concepts are accurately and permanently learned and are used in everyday-life. If concepts are inaccurately or deficiently structured in one's mind, various misconceptions occur. Therefore, it is of utmost importance to figure out how individuals associate concepts in their minds, so as to understand cognitive structures about concepts. It is believed that concept maps are outstanding instructional materials in terms of describing these associations. For that reason, teachers are required to accurately create and effectively use concept maps. Within that context, this study aims at revealing concept map creating statuses of prospective mathematics and biology teachers and make a comparison between the departments. The study has been conducted with 25 prospective mathematics teachers and 30 prospective biology teachers studying at the Faculty of Education of a state university. The prospective teachers were asked to prepare a concept map by using the concepts of an acquisition from their own curriculum and to take criteria such as accuracy, clarity, and visual quality into account while preparing such a map. The presentations prepared were evaluated according to these criteria both by themselves and by the researcher. These evaluations are considered as data. The collected data were analyzed by comparing the evaluation of the researcher and the self-evaluation of the participants. The obtained results demonstrate that the evaluations by the prospective biology teachers are similar to the evaluations by the researcher, whereas; the evaluations by the prospective mathematics teachers are partially similar to those by the researcher. However, when it comes to the criterion, which examines concept maps aesthetically, the evaluations by the researcher display differences with the evaluations by the prospective teachers from both departments. Moreover, in terms of some of the criteria, both prospective mathematics teachers and prospective biology teachers obtained results that are similar to those of the researcher.

Keywords: Prospective Teacher, Concept Map, Instructional Material

CONTENT ANALYSIS OF THE TURKISH COURSEBOOKS FOR PRE-SCHOOL CHILDREN (50-74 MONTHS-OLD)

Banu Uslu, Aysel Çağdaş

In the present study, the content of the vocabulary chosen for 50-74 months-old children shared in these coursebooks were determined. In this context, 3 sets of Turkish coursebooks used in private schools were determined depending on expert opinions and examined in terms of word distribution. In these sets, for content scanning depending on expert opinions criteria were formed. These criteria are formed based on native word categories such as; nouns, verbs, pronouns, adverbs, adjectives, conjunctions, prepositions, spoken actions/idiomatic verbs, question words, numbers, quantifiers/quantifiers, interjections, colors, speech phrases and reduplication, In this way, the kind of the words used in the coursebooks and their frequency were determined. The words used in the 3 sets of coursebooks were determinde via word counting program considering the categories they belonged to, and the most frequent words were determined according to the relevant age group. The results of the 50-74 months-old children's foreign language concept table and its descriptive analysis conducted by the word counting program were examined by 3 academicians from child development department and 3 teachers working with this age group. According to the analyzes, it is seen that most of the coursebooks in Turkish have respectively "Nouns", "Verbs", "Pronouns" and "Adverbs". The words that are least frequent were "Quantifiers", "Interjections", "Colors", "Reduplications" and "Speech phrases"

Keywords: Pre-school Period, Turkish, Coursebook

CURRICULUM REVIEW ON SUSTAINABLE PHOTONIC EDUCATION SYSTEM IN TURKEY

Altay Firat, Arif Sari

Increasing problems in the education system in Turkey and the inability to reach the desired success levels in education have caused the need for a new understanding of education to rise in education market. It has aimed to eliminate existing problems through targeted changes made in the education system to expose new qualification standards in education. The designing the topics that are planned for photonics for the purpose of sustainable education in education curricula and designing them to be both intermediate and mainstream for the students at the same time contains great importance in terms of sustainability. On the basis of sustainable education, there is an infrastructural education policy supported by “sustainable education” which is not based on memorization or classic learning style, but allows the theoretical enhancement with field applications that enhance the sustainable education. The focus of this study is to shape the sustainable education system through photonics on the basis of the vocational high school and vocational education field in Turkey. In addition to this, many positive or unfavorable results of photonics program that contributes to economic indicators are exposed through this study.

Keywords: Education System, Turkey, Photonic, Education, Sustainability,

DATA PROTECTION FRAMEWORK IN PUBLIC CLOUDS: AN EMPIRICAL STUDY

Alfred Ignatius Ajayi, Lili Yang, Malcolm King

Abstract- The advancement of cloud computing in recent years has introduced new security frontiers requiring approaches different from the conventional protection mechanisms. By moving resources away from owning and maintaining datacenters, the adoption of cloud computing allows organizations to concentrate on core competencies to tackle competitive challenges and increase market share. However, relocation to public clouds – many organizations still perceive public clouds as imprecise zones – portends profound and far-reaching implications for organizations as clouds expose data to startling vulnerabilities and shift security responsibility to cloud service providers. With heightened data breaches both in businesses and governments in recent years, empirical evidence has shown that security and regulatory requirements remain the top factors largely hindering rapid relocation to public clouds. In the era of cloud computing, perimeter security is no longer enough to secure corporate information and data assets. Thus, deploying best-practices, all-encompassing data protection policy has become paramount. This paper investigates the complexity associated with protecting data in public clouds and presents a holistic framework to manage security in cloud environments. Combining both qualitative and quantitative methods, the paper draws predominantly on empirical data from National Health Services (NHS) Ambulance Services Trusts and incident reports by European Union Agency For Network And Information Security (ENISA).

Keywords: Public Clouds, Cloud Computing, Data Breach, Regulatory Requirements, Security Perimeter, Cloud Service Providers, Security Framework.

DESIGN AND IMPLEMENTATION OF A CONTENT DELIVERY ARCHITECTURE FOR MUSEUMS

Hikmetcan Özcan, Taner Güven, Mehmet Ali Altuncu, Burcu Kir Savaş, Suhap Şahin, Oktay Duman

There is not enough interest to museums located in almost every region of Turkey. In order to increase the attraction of the museums, it is necessary to make activities to orient people and to make the museums more attractive place to visit. Unfortunately, these activities, which can be realized very easily with the help of technology, cannot be implemented to museums due to technological infrastructure inadequacy. In this paper, we aimed to develop a system that will interactively distribute and access media data about artifacts in museums. The system consists of a local server, tablets located next to the works, a mobile program installed on the visitor's mobile phones, and a cloud server to manage whole system. Mobile application on tablets will provide written and visual media support about museums and artifacts to visitors. The artifacts in the museum are kept both on the cloud and on the local server. The information about artifacts is kept both on the cloud and on the local server. However, considering the number of museums, it is not enough to manage the data traffic with only the cloud. With proxy servers to be used, we aimed to reduce network traffic and to move intensive data traffic to local networks in the museum. Proxy servers are used as buffer servers in many studies. Thanks to this feature, system performance and efficiency will be increased by caching.

Keywords: Museum, Cloud, Mobile Application, Web Service

DESIGNING AND DEVELOPING A VOICE CONTROLLED LASER PRINTER TO CODE MICROSCOPE SLIDES WHICH IS USED IN PATHOLOGY LABORATORIES

Ferhat Toslak, Adnan Fatih Kocamaz, Emrah Dönmez

Microscope slides which are used in pathology laboratories are usually coded by handwriting today. This condition is the main cause of being erased the writing because of abrasion in a short time. Another point of handwriting is being occurred unfavorable hygienic conditions for specimens (tissue, blood etc.) On the other hand, devices on the market are not an attractive choice because of their expensive costs and lower performance. The aim of this study is developing an economical device which is controlled by speech recognition via computer to code microscope slides quickly and correctly. The device prints on slide by a low-cost DIY laser module. Characters, by using NATO phonetic alphabet, and numbers are provided to be recognized one by one to enter the code. The data are sent to embedded system via serial port of computer after determining the characters, which form code, and count of slide which is going to be printed. A Laser module and four servos are controlled by embedded system. One of servos is for slide feeding unit, two ones are for moving slide X and Y axis and one is for slide evacuation unit. After writing confirmation the process steps are like this; I. The slide is brought from feeding unit to print unit, II. It is provided the code to be printed on painted area of slide by sending laser ray while slide is being moved X and Y axis. III. The printed slides are saved in evacuation unit. In this way we can prevent the problems that will occur because of handwriting or being exposed chemical and physical process. This is an advantage for patient safety. Speech recognition and DIY laser module are used for the first time to print code on microscope slides.

Keywords: Microscope Slide Printer, Diy Laser, Speech Recognition, Voice Controlled, Embedded System, Pathology Laboratory

DESIGNING INFORMATION SYSTEMS FOR MEDICAL APPLICATIONS IN CLOUD ENVIRONMENTS.

Alfred Ignatius Ajayi, Lili Yang, Malcolm King

Abstract– This paper explores three decades of London Ambulance Service (LAS) Information Systems (IS) design and redesign endeavors. The literature shows that during the last three decades, implementation of efficient IS remained one of the most daunting challenges faced by LAS which is the busiest emergency ambulance service in the UK. The failure of London Ambulance Services Computer Aided Dispatch (LASCAD) in 1992 which triggered government inquiries and scholarly studies into its causes was an immense issue the organization had to overcome. Without a dependable and redundant IS, the ultimate goal of delivering high quality service within the specified response time cannot be realized. Thus, it was imperative to turn around the 'epileptic' nature of the organization's IS to meet the goal of providing the highest quality care to patients. Evidence shows that the organization has been prodding and tuning the IS architecture with the exclusive anticipation of accomplishing an enhanced and stabilized IS for the day to day emergency operation. Target response times are set by the UK government for the country's emergency ambulance services. To continuously meet those targets, IS redundancy is vital to facilitate 24 hours a day, 7 days a week and 365 days a year service. Even though some respondents expressed doubts about the organization's capacity to completely eliminate system failures over time given the history of system failures, evidence shows that after several try and error, the organization has found the smooth spot by implementing Command Point at the frontend and Cloud Computing solution at the backend. The organization's glitch free operation during London 2012 Olympics and Paralympic Games was an attestation to the resiliency and stability that LAS IS has attained. This paper used data collected from LAS and University College London Hospital (UCLH). Data analysis was conducted using qualitative methods and Nvivo software.

Keywords: Affordable Care Act, Las, Cloud Computing, Is, Emergency Service, Ambulance, System Failures, Response Time, Olympics.

DETECTION OF COHESIVE SUBGROUPS IN SOCIAL NETWORKS USING INVASIVE WEED OPTIMIZATION ALGORITHM

Yilmaz Atay, Ismail Koc, Mehmet Beskirli

Social network analysis (SNA) is a very popular research area that helps to analyze social structures through graph theory. Objects in social structures are represented by nodes and are modeled according to the relations (edges) they establish with each other. The determination of community structures on social networks is very important in terms of computer science. In this study, the Invasive Weed Optimization (IWO) algorithm is proposed for the detection of meaningful communities from social networks. This algorithm is proposed for the first time in community detection (CD). In addition, since the algorithm works in continuous space, it is made suitable for solving the CD problems by being discretized. The experimental studies are conducted on human-social networks such as Dutch College, Highland Tribes, Jazz Musicians and Physicians. The results obtained from experimental results are compared and analyzed in detail with the results of the Bat Algorithm and Gravitational Search Algorithm. The comparative results indicate that IWO algorithm is an alternative technique in solving CD problem in terms of solution quality.

Keywords: Community Detection, Discretization, Graph Structures, Invasive Weed Optimization, Social Networks, Sna.

DETERMINATION OF CONCRETE QUALITY WITH NONDESTRUCTIVE GEOPHYSICAL MEASUREMENTS

Kenan Gelişli, Ali Erden Babacan, Sevda Gören

Due to the geographical location and geological structure of Turkey, many destructive earthquakes have occurred in the past and these earthquakes will take place in the future too. Researches and evaluations made after recent earthquakes were revealed that the earthquake strength of existing buildings were weak. The concrete quality used in constructions for earthquake strength must be in certain standards. It is also necessary in terms of building quality to determine the condition and damaged zones of reinforcement in concrete. In addition, determination of moisture and corrosion of concrete is used to examine the quality of concrete and the concrete improvement works. Determination of the structural quality without damaging the structure is very important with regard to reveal of whether or not there is damage in reinforced concrete structure over time or due to any effect such as an earthquake. In recent years, the use of Geophysical methods in nondestructive construction studies has been increasing steadily. In this study, concrete quality was tried to determine by ultrasonic velocity measurement method which is one of the nondestructive measurement techniques. For this purpose, concrete block specimens with 3 different properties were prepared in the laboratory and ultrasonic velocity measurements were performed on these specimens. Uniaxial Compressive strength (UCS) tests were carried out by taking samples from prepared concrete blocks and the results obtained from UCS were compared with ultrasonic velocities. Besides, high frequency electromagnetic georadar method has been tried to determine the properties of reinforcements in many model concrete. Moreover, micro-electrical resistivity devices have been used to determine the moisture content of concrete. As a result of, the quality condition of the concrete has been successfully proved by the ultrasonic velocity measurement technique. Also, the presence of a significant relationship between uniaxial compressive strength and ultrasonic velocities determined from samples taken from concrete blocks was determined. It has been shown that the high frequency georadar method reveals by all the features of the reinforcement. At the same time, the humidity level in concrete can be quickly and easily determined with the electrical resistivity measurements.

Keywords: Ultrasonic, Uniaxial Compressive Strength, Concrete Quality

DETERMINATION OF ESSENTIAL OIL COMPONENTS OF PALIURUS SPINA CHRISTI MILLER PLANT SEED, INVESTIGATION OF ELECTROCHEMICAL AND PHOTOLUMINESCENCE PROPERTIES

Elife Kaya, Gökhan Ceyhan

Paliurus spina christi Miller is a thorny plant that is commonly known as Asia and the Mediterranean region, 2-3 m in height, often branched, deciduous in winter.
Studies have shown that the Paliurus spina christi Miller plant, which has different medicinal uses among the population, contains important compounds such as alkaloids, flavonoid glycosides and polyphenols.
In this study, Paliurus spina christi Miller plant seeds were extracted, later essential oil components were identified using GC-MS equipment. Emission properties of oil extracts were determined by photoluminescence studies. The redox properties were investigated using a cyclic voltammetric technique. When the results obtained were analyzed, it was exhibited intense emission (755 nm) and excitation (420 nm) bands due to the phenolic group in the plant seed. Electrochemical studies were examined at different scan rates in DMF buffer. When the voltammogram was investigated, three anodic peak potentials (-1.34-1,13 mV / s) and two cathodic peak potentials (-0.74-0.51 mV / s) were observed. This indicates that the reaction is irreversible (Ipa / Ipc # 1).

Keywords: Paliurus Spina Christi Miller, Photoluminescence

DETERMINATION OF TEACHER CANDIDATES' THINKING TOWARDS WRITING

Coşkun Deveci, Simge Şengül, Muhammed Said Akar

The word is old; but the power of spoken sense, the spread of a thought, is limited. It is the article that provides the permanence of our feelings and thoughts. Writing; emotions, thoughts and wishes of our people. Writing from an educational perspective is used as a means of perceiving and creating new concepts. In other words, it makes mediated learning between meaningful learning. Writing in education is used as a learning tool. Therefore, the opinions of the educators about writing are important. In this research, it was aimed to determine the thoughts of the candidates for writing. For this purpose, descriptive scanning method was used in the research. The sample of the research consists of a total of 162 teacher candidates, including 37 teacher candidates from the Erzincan University science teacher education program, 49 teacher candidates from the classroom teacher program, 33 teacher candidates from the mathematics teacher education program and 43 teacher candidates from the social studies teaching program. The Writing Attitude Scale (WAS) developed by Biber (2012) was used for data collection in the study. The reliability of the scale of Biber (2012) was determined as $\alpha = 0.92$. The mean and standard deviation of the descriptive statistics were used in the analysis of the data. According to the results obtained from the research, it was seen that the mean scores of the sections participating in the whole study were close to each other and the average of the groups was between 3,41-4,20. It can be said that teacher candidates regard writing as a learning tool and have a positive attitude toward writing.

Keywords: Writing, Attitude, Teacher Candidate

DETERMINING CONTENT AND PEDAGOGICAL CONTENT KNOWLEDGE OF MATHEMATICS TEACHERS IN RELATION TO RATIONAL NUMBERS AND FRACTIONS

Z. Sonay Ay, Ceylan Şen

The existence of different opinions on fractions and rational numbers in the literature leads to misconceptions of various kinds (Yanık, 2013). In order to prevent, reveal, and eliminate misconceptions regarding fractions and rational numbers in students' minds, teachers' content and pedagogical content knowledge becomes ever more important (Ma, 1999). Teachers need to possess adequate and relevant mathematical content knowledge and convey this knowledge to their students in the most effective way (Ball, Thames & Phelps, 2007; Ma, 1999). NCTM (2000) states that content knowledge of mathematics teachers should be improved, and teachers should be equipped with the knowledge to present the content and concepts to students. Content knowledge refers to teachers' knowledge of mathematical concepts, principles, and rules (Shulman, 1987). It is observed that teachers with strong content knowledge regarding a subject deal with the subject in depth, relate it to other relevant subjects, and attach importance to problem solving as well as research (Borko & Putnam, 1996). Pedagogical content knowledge refers to teachers' capacity to convey and teacher their knowledge about the subject (Rodgers & Raider-Roth, 2006). Shulman (1986) states that teachers' pedagogical content knowledge influences teaching process. This teaching process can be manifested in time and classroom management, teaching content and preparing a schedule, material development and use, employing teaching strategies, and assessment and evaluation approaches. In this sense, this study seeks to reveal middle school mathematics teachers' content and pedagogical content knowledge of rational numbers and fractions. The study was carried out with 8 volunteer middle school mathematics teachers working in 3 different schools during the 2016-2017 academic year spring term. Data collection tool of the study is a semi-structured interview form prepared by the researchers. The findings obtained from the study were analyzed via the content analysis

method. The responses given by the teachers were coded based on common characteristics and listed in categories. To support the codes and the categories, the teacher responses were also described by direct quotations. Based on the data obtained from the study, it is possible to say that in relation to rational numbers and fractions, middle school mathematics teachers do not possess the relevant and adequate knowledge of concepts and operations nor they are equipped adequately in terms of teaching.

Keywords: Pedagogical Content Knowledge, Rational Numbers, Fractions, Middle School Mathematics Teachers

DETERMINING PRE-SERVICE TEACHERS' USE OF REPRESENTATION REGARDING UNIT CIRCLE

Ceylan Şen, Gürsel Güler

Trigonometry is accepted as the field dealing with circular and trigonometrical functions (Güntekin & Akgün, 2011). Since the 17th century, it has commonly been used in many areas after it experienced an analytical transformation (Larson ve Hostetler, 1997). Trigonometry is used in mathematics via limit, derivative, integral, and complex numbers while it is also useful for other fields such as physics, engineering, and chemistry. Hence, teaching trigonometry becomes important for both mathematics education and the education of other disciplines. Trigonometry is a discipline in which mathematics is abstract, and prerequisite relations are intense (İnan, 2009). Therefore, using representations during the teaching process is helpful as it attributes meaning to teaching and reinforces understanding. Representations refer to tools that are needed to process the mathematical realities in mind and to convey them to someone else (Adu-Gyamfi, 2007). Mathematical representations are types of demonstrations that allow organization, recording, conveying, modelling, and interpretation of ideas, phenomena, objects, or realities (NCTM, 2000). Trigonometrical representations are classified as trigonometrical functions and identities, right triangle, unit circle, sinusoidal wave forms and vectors (Byers, 2010). Right triangle and unit circle are used to teach trigonometry (Güntekin & Akgün, 2011). This study aims to analyze pre-service mathematics teachers' conceptual knowledge of the unit circle, which is one of the trigonometrical representations. Data of the study were obtained from 103 pre-service teachers who took the General Mathematics course during the 2016-2017 academic year fall term. The representations employed by the pre-service teachers regarding the unit circle were analyzed via the content analysis method. The pre-service teachers' responses were evaluated under the categories of algebra, geometry, graphics, and others. At the end of the study, it was seen that the pre-service primary school mathematics teachers mainly employ the algebraic and geometrical approach regarding unit circle while they do not employ the graphical approach at all.

Keywords: Trigonometry, Unit Circle, Representations, Pre-service Elementary Mathematics Teachers

DETERMINING PROSPECTIVE PRIMARY TEACHERS' KNOWLEDGE LEVELS RELATED TO ENVIRONMENTAL TOPICS

Oylum Çavdar, Nilüfer Okur Akçay, Seda Okumuş, Coşkun Deveci

The aim of this research is to determine the prospective primary teachers' knowledge levels about environmental topics. For this aim, it was used survey research method of quantitative design. The sample of the research consists of 38 prospective primary teachers who are educated in the 4th grade of Muş

Alparslan University Education Faculty. It was used an open-ended test (Environmental Knowledge Test-EKT) consisted of four questions related to greenhouse effect, global warming, ozone layer, and acid rain in order to collect data. For the validity of the test three experts were consulted. The consistency of the scorer was examined for its reliability. It was used percentage and frequency values of descriptive statistics for analyzing the data. Findings from the research show that prospective primary teachers do not have enough knowledge about these global environmental problems or they have incorrect knowledge. It was seen that prospective primary teachers confuse the events of greenhouse effect, global warming, ozone layer and acid rain with each other and they have misconceptions when correlating cause-effect of these facts. From this point of view, it is considered that environmental topics should be given as much as possible in higher education primary teacher programs. As a result of a correct education that can be provided to prospective teachers' misconceptions can be prevented from occurring in the minds of primary school children in the future.

Keywords: Prospective Primary Teachers, Environmental Topics

DEVELOPMENT OF STUDENTS' MODELLING COMPETENCIES WHILE WORKING ON MODELING TASKS

Ali Özgün Özer, Esra Bukova Güzel

In this research, it is aimed to examine the developments of the students on the modeling competencies. In the study, case study method was used. Thirty ninth grade students constitute the sample of the research. In order to see the development of the students' modeling competences in more detail, a group of six groups were randomly selected and examined. Students have no prior knowledge of the concept of modeling. The concept of modeling was first introduced to the students and then modeling tasks were applied. A total of eight modeling tasks have been implemented in the context of modeling applications. Four of them, students solved the given problems and in the other four tasks, they posed a problem of modeling and solved their own problems. At the end of each task, a reflective dairy was given to the students and the students responded individually. In addition, the focus group interview was made with the selected group at the end of the implementations and the opinions of the students were taken. The data of the research consists of reflective dairies, video transcripts and task solution papers. Reflective dairies and video transcripts were analyzed by descriptive content analysis method. The task solution papers were analyzed by modeling competence evaluation rubrics. According to the findings obtained from the reflective diaries, the students' emotional modeling competencies such as belief, willingness and motivation were improved. At the end, students found that mathematics could be used in real life, and found that they could establish a mathematical and real life relationship, even though they did not fully understand the modeling tasks or found unnecessary at the beginning of the study. In the analysis of the task solution papers, the cognitive modeling competencies of the students were improved. Although students did not interpret and validate the solution in the former task, and in the latter tasks, they interpreted and validated the solution. It was effective for students to build and solve their own modeling problems in their internalization of the modeling concept and in their development of modeling competencies.

Keywords: Modeling Competencies, Modeling Implementations, Modeling Competence Rating Rubrics

DEVELOPMENT OF VOCATIONAL EDUCATION MODULE BASED AUGMENTED REALITY FOR PLC TRAINING

Aytac Ugur Yerden, Nihat Akkus

The aim of this study is to investigate the effect of rapid learning on associate degree level students of PLC using modules created with augmented reality. To achieve this goal, the development of the PLC Visual System was assisted by augmented reality employıng Unity and Vuforia softwares whıch are based upon C# coding language; and education has been rendered feasible via a tablet or mobile phone runnıng an Android operating system. For PLC training based on the S7-1200 hardware, the electrical connection with PLC input / output connections is visualized with 3D animation. In this study, PLC training was applied to two separate groups: traditional theoretical and augmented reality theoretical. The model has been made web-accessible with a student management system and made available to students. 80 students studying in the second year of the associate degree, using the 5-minute module, were then subjected to information and evaluation through tests and classical exams. With the evaluation of the training made, positive improvement in education was observed by 85%. As a result of the research, it has been determined that the students with PLC education based on the augmented reality were more successful.

Keywords: Plc, Augmented Reality, Vocational Education

DIVERSIFICATION OF MALICIOUS SOFTWARE: THE RANSOMWARE APPLICATIONS

Uğurcan Atasoy, Arif Sari

Ransomware malicious appears in the cyber world more than 25 years and it ruins most common operating systems such as Windows, Mac, Linux and Android year by year. Ransomware briefly infects the target system by encrypting all files such as pictures and documents with strong encryption mechanisms and request money for decryption key. The spread of ransomware is directly proportionate with success of social engineering attacks. The fact reminds that, the spread success and variety increment of the ransomware depends on great outcomes from all over the world. These outcomes became motivation for attackers and the attackers started to create new ransom diversities. Every sort of ransom has different encryption mechanism and structure, so this makes the decryption process of the infected files (encrypted by ransom) a tough issue for non-specific users. There are some solutions for the encrypted files but ransomware threat is still around. Since ransomware aimed considerable linked systems like massive organization branches and government systems it is still a critical threat. This paper classifies the major ransomware diversity and their working mechanisms including recommendations to defend the systems against ransomware threats along with decrypting files.

Keywords: Ransomware Diversity, Ransomware Types, Cryptology, Social Engineering

DO MACEDONIA`S EXPORTS HAVE ANY SIGNIFICANT IMPACT ON ITS ECONOMIC GROWTH ?

Nasir Selimi, Rasim Zuferi, Sadudin Ibraimi

There are many authors that support the theory that exports have crucial impact on economic growth. The majority of economist support the open economy considering the benefits gained of it. So far in human

history it is not known that any national economy have been developed on the basis of isolation. Today it is the best of times for business. It`s easier than ever for company to sell or buy goods and services across the world. Internationally active countries tend to be more productive than countries which only produce for the domestic market. International trade is believed to be one of the several catalysts of productivity and economic growth. Moreover, international trade promotes the efficient allocation of resources.
Macedonia in its macroeconomic policy as a priority enlist the development of export. In 2016 Macedonian export showed slight increase compare with previous year, but again deficit reached a very high percentage. This is a signal that warns the country's economy in the present and in the future.
The main objective of this paper is to analyze empirically the export and performance during the period of 210-2016 of Macedonia. Based on the panel regression, positively affect export performance in the economic growth. The results and conclusions of this paper we hope that will help everybody who are interesting and studding this matter especially the policy makers in those countries. The last ones have the obligation to facilitate and promote the export if they want to contribute on developing their economy.

Keywords: Export, Import, Trade Balance, Deficit, Surplus

DOMESTIC BATTERY CHARGE UNIT DESIGN AND PRODUCTION FOR MILITARY VEHICLES

Ahmet Aktaş, Yağmur Kirçiçek

As a result of increased research and development expenditures on the branding of domestic products used in the defense industry in our country, speed is given. The defense industry constitutes a large share of the inventory of military vehicles in land vehicles. At the same time, military vehicles are exported to many units of the armed forces. Domestic production of other hardware components used in these vehicles will reduce external dependency. As a result of developments in electronic communication and electro-optical technologies, such devices are widely used in fixed point surveillance and command-control tasks. With this study, original and locally designed and prototype production of battery charging units have been realized in order to meet the energy needs of the electronic systems in the fixed point services of military land vehicles from the network. Manufactured in accordance with military standards, the battery charger unit is designed to extend the cycle life of the battery by controlling its temperature. With the battery charging unit realized, defense contributes to my country economically and strategically by decreasing the external dependency by using indigenous and original resources in the industry.

Keywords: Defense Industry, Battery Charge, Control Systems, Power Electronics.

DYNAMIC BEHAVIOUR OF RAILWAY BRIDGE SUBJECTED TO DIFFERENT STRONG GROUND MOTIONS CONSIDERING SOIL-STRUCTURE INTERACTION

Abdul Ahad Faizan, Osman Kirtel

The dynamic behaviour of a four-span continuous railway bridge subjected to different ground motion considering soil-structure interaction is investigated using finite element method. Taking a multi span railway bridge as an example, a full two-dimensional finite element model of the railway bridge system was established, in which the soil-structure interactions were considered. Considering the soil property of bridge site, three types of earthquake was used as input motion. Kocaeli (1999), Kobe (1995) and Manjil (1990) earthquakes are defined as input motions. The analysis was performed for one type of soil; the soil

was specified as a soft. Time domain dynamic analyses of the structure-soil model and also a 2D version of PLAXIS, a specially developed finite element software for solving geotechnical problems, have been performed. By inputting the Kobe, Kocaeli and Manjil earthquake accelerations to the bridge system, the dynamic responses of the bridge, including the horizontal displacements of the top of the railway bridge are calculated by the PLAXIS program. The displacement obtained by the Kocaeli earthquake is compared with the results obtained by the Kobe and Manjil earthquakes.

Keywords: Railway Bridge, Soil-structure Interaction, Dynamic Behaviour, Finite Element Method

ECOTOURISM CITY MODELS USING GEOGRAPHIC INFORMATION SYSTEMS: EXAMPLE OF YILDIZ MOUNTAINS (STRANDZHA MOUNTAINS)

Doğan Savran, Gürkan Tuna

The regions where the historical and cultural values are concentrated and the tourism potential is high have a great importance in terms of protecting, using, providing sectoral development and planned development. In this context, Istirancalar Region, which is one of the five most important natural areas of Europe, located in the province of Kırklareli, is one of the important nature conservation areas to be studied. In this study, it is aimed to accelerate the development of Turkish tourism by integrating it with the new tourism trends in the world with the help of the analysis made using geographical information system technologies and by introducing its own building norms in the region and the constraints of the plans. The main objective of this framework is to determine the tourism planning policy of the country with a holistic and sustainable approach to all elements (cultural, social, natural, environment, etc.) covered by sectoral development.

Keywords: Geographical Information Systems, Ecotourism Cities, Kirklareli, Yildiz Mountains, Protection And Development Zone

EFFECT OF BEHAVIOR MANAGEMENT SYSTEM-AIDED ENGLISH LANGUAGE TEACHING ON STUDENTS' ACADEMIC SUCCESS

Ismail Şan, Gizem Koçak, Ali Kiş

There are a lot of variables making classroom management difficult in the teaching process. The effect of these variables on the process often results in compromising the variables that increase the quality of the teaching process and this negatively affects the academic success. The influence of affective properties on learning remains as a reality recognized in cognitive approaches as well as in behavioral approaches. Motivation should be provided with internal or external factors, and reinforcements should be used for this. In order for the reinforcements to have an ideal effect, it is necessary to apply the different features to different students at different schedules. However, reinforcements need to be followed in every case, and ensuring follow-up in the process of getting the content acquired makes the teacher's job difficult. It is important to keep away from unwanted behaviors while teaching the student the desired behavior, following the various symbolic reinforcements used to motivate the students in class activities. The student who knows that his or her behavior is followed is more careful to show the desired behaviors. This study was held on 53 students (26: experiment group, 27: control group) in Pazarcık Middle School that is located in Pütürge, Malatya, Turkey. During the experimental procedure in the experiment group "Behavior Management System-Aided English Language Teaching" was applied, on the other side teaching process of

control group was organized according to English curriculum. Before the implementation of the course, teacher was informed about how to use "Class Dojo (one of the Behavior Management Systems)" effectively. Before experimental procedure, the experiment and control groups were compared (as pretest) and picked out form other groups due to being similar in terms of English exam results, positive and negative behavior counts, nonattendance counts, gender, socio-economic level, number of siblings. The experiment process will last 5 weeks and the groups will be compared with respect to same variables and compared to each other as a post-test after teaching. The experimental process of the study is still continuing. If proceeding is accepted for presentation, full text of the study will be submitted and shared with participants of the congress.

Keywords: Behavior Management System, English Language Teaching, Academic Success

EFFECT OF INSULIN ON LPS-INDUCED INFLAMMATORY MARKERS IN MOUSE COLON SMOOTH MUSCLE CELLS

Ahmed Al-dwairi, Mohammad Alqudah, Othman Al-shboul, Ayman Mustafa

The incidence of both obesity and inflammatory bowel disease (IBD) is increasing in a parallel fashion worldwide. Obesity is characterized by increased fat mass, hyperinsulinemia, altered endocrine profile, and systemic low-grade inflammation. IBD results from interplay between genetic factors, environmental factors, and inappropriate immune response. It comprises two distinctive forms; Crohn's disease and ulcerative colitis; both characterized by mucosal and submucosal inflammation, and recruitment and activation of inflammatory cells of innate and adaptive immune system and enhanced production of pro-inflammatory cytokines. The effect of Obesity-associated hyperinsulinemia on the development of IBD has not been studied extensively. The gastrointestinal smooth muscle cells are the main contractile non-proliferative apparatus needed for mixing and propelling the intraluminal contents, however they can exhibit phenotypic switching, hyperplasia, and altered contractile behavior in IBD. The aim of the research is to determine the effect of supraphysiological doses of insulin on mouse colon smooth muscle's (CSMCs) expression and secretion of pro-inflammatory cytokines IL-6, TNFα, and IL-1β ex vivo. Freshly isolated colon SMCs from BALBc mice were cultured in DMEM medium, and treated with various doses of insulin (Ins; 0, 1, 5, 10, 20 nM) for 24h, and with/without lipopolysaccharides (LPS; 1 ug/mL) to induce inflammation. The levels of IL-6, TNF-α and IL-1β in the cell homogenates and in the conditioned media were measured using ELISA. Ins alone (1, 5, 10, 20 nM) did not elicit any change in the expression or secretion of IL-6, TNFα, and IL-1β form SMCs, however, Ins (10 and 20 nM) significantly ($p< 0.05$) increased the expression and secretion (1.5- 2.5 fold) of both IL-6 and TNF-a from CSMCs in the presence of inflammatory stimulus LPS when compared to control. This study highlights the role of hyperinsulinemia on colon smooth muscle cell inflammation, and their potential role in development of IBD during obesity.

Keywords: Insulin, Ibd, Smooth Muscle

EFFECT OF LEPIDIUM SATIVUM WATER EXTRACT IN SOME FERTILITY PARAMETERS IN MICE

Shaima R. Ibraheem, Muntaha R. Ibraheem, Sumaia Sami

The uses of traditional plant extract in the treatment of various diseases have been flourished. The present study was aimed to evaluate the effect of Lepidium sativum water extract on the fertility criteria in male

mice. Forty eight mice used in the experiment divided into 4 groups (12 mice each group) Group 1 (Control) , group 2 treated with Lepidium sativum water extract for 2 weeks .Group 3 treated with the sulpride drug to conduct over weight and hyperprolactinemia for 6 weeks .Group 4 treated with the sulpride drug for 6 weeks and then with Lepidium sativum water extract for 2 weeks . The results show that the weighed does not change over the first weeks , but there is a significant increase in body weight at the fourth week , especially in the groups (3 and 4) . Between the groups ,the groups treated with the drug sulpride show body weight higher than that of the control group. The group treated with both with the drug and LP shows the higher level of LH, while the group which is treated with LS only shows higher level of FSH. Prolactin shows its lowest level in the group treated only with LS extract extract when compared with other treated groups. Testosterone shows its higher level in the group treated only with LS extract . The group treated with the drug sulpride and have high level of prolactin showed a decline in all the parameters related with infertility. This group have the lowest sperm count (53.33 ± 1.76) sperm/ml and motility (33.33 ± 3.33) % and viability (46.67 ± 1.67) %, in comparison to other groups. In general there is a significant difrences in all the parameters in comparison with control group .The group treated with the drug sulpride and have high level of prolactin showed a decline in all the parameters related with in fertility. On the other hand , all the infertility parameters enhanced in the hyperprolactenimic animals which is treated with LS extract. In general there is a significant differences in all the parameters in comparison with control group. Histological sections for the Testis in the group treated only with LS shows a look-like normal appearance of seminephrous tubule with presence of high number of sperms, while Sections of Hyper prolactinemic mice testis shows partial degeneration and damage of dispersed spermtogonia cells with still presence of sperms inside the lumen with certain morphological abnormality in the shape of the sperms. Section of treated mice testis shows a look like normal shape and structure of seminephrous tubules with the presence of normal morphology shapesperms in the lumen. The findings of this study highlight the usefulness of using local and easily available plant products and constituents in treating or preventing diseases. The findings are encouraging and warrant further work on the aqueous extract of L. Sativum seeds and its effects on infertility.

Keywords: Lepidium Sativum , Reproductivity, Hormons , Liver Function

EFFECT OF TRADITIONAL METHODS IN GEOMETRY LEARNING DOMAIN ON ACADEMIC ACHIEVEMENT: A META-ANALYSIS STUDY

Ismail Şan, Ali Kiş

Nearly all studies aiming to determine the effect of modern teaching methods on academic success using an experimental design contain control groups in which traditional methods are used. However, the effect of traditional methods on geometry learning domain has not been thoroughly studied by researchers so far. From this viewpoint, the aim of this study is to synthesize research findings of traditional methods in Geometry Learning Domain (GLD) on academic success. The aim of this meta-study is to calculate an overall effect of traditional method in Geometry Learning Domain (GLD) on academic success. For this purpose, necessary data was gathered from the master and doctoral theses completed in Turkey and trying to find an indirect answer to the research question “Does traditional methods in GLD effect students’ academic success?” Meta-analytic method was preferred for this study to compare and combine the findings from various independent studies on the same subject and synthesize the results. Included studies are from the studies giving pre-posttests values for their control groups from the studies with pre-posttests experimental and control group designs on GLD. Included studies were obtained from Advanced Thesis Search Database of The Board of Higher Education (YÖK), using keywords search “geometry”, “mathematics” and “control” (both in Turkish and in English). The theses on GLD and using middle school (5th to 8th grades) as the sample were included into the meta-analysis, if they are accessible considering the inclusion criteria. So far, 17 studies out of the 38 were included into the meta-analysis. Early results of the analysis indicate that there is a positive and statistically significant effect favoring the posttests.

The analysis process is still continuing. If proceeding is accepted for presentation, full text of the study will be submitted and shared with participants of the congress.

Keywords: Geometry Learning Domain, Meta-analysis, Traditional Method, Academic Success

EFFECTS OF CONFERENCE PAPERS TO SCIENTIFIC COLLABORATION NETWORK DYNAMICS

Ilker Türker, Serhat Orkun Tan, Seher Lort

Complex networks define a framework for outlining the underlying principles of web-like structures those are evident in nature and society. Scientific collaboration networks are good prototypes of these systems since the node and link data are available in scientific databases like Web of Science, Scopus, Medline etc., together with the time dependency data. Collecting a dataset spanning 5 years of data (2011-2015) involving engineering based papers from the Web of Science collection, we outlined how the co-authorship patterns defined by conference papers effect the stand-alone article based network in yearly resolution. Our dataset consists of 25274 authors and 72418 links for only articles, whereas this volume increases up to 30669 authors and 93743 links with the addition of conference events. The empirical analysis indicates that both networks are scale free with low-degree saturation regions. The addition of conference events effects the network by decreasing the power-law exponents, average path length and clustering coefficient values, whereas increasing average degree together with the node and edge counts. The evolution graphs of these parameters are also presented in yearly resolution, together with the change in degree distributions for both datasets.

Keywords: Co-authorship Networks, Complex Networks, Statistical Analysis

EFL STUDENTS' REFLECTIONS ON EXPLICIT AND IMPLICIT WRITTEN CORRECTIVE FEEDBACK

Sultan Bozkurt, Zeynep Çamlibel-acar

Written corrective feedback given by the teacher on students' essays plays a significant role in the development of language and writing skills of second language (L2) learners. Whether explicit (direct) feedback or implicit (indirect) feedback should be given to students' errors in essays, and which of these is more beneficial to learners has been a concern of L2 writing researchers for some time. However, the issue of learners' preferences on the types of written corrective feedback has been overlooked. This paper aims to investigate Turkish speaking English as a Foreign Language (EFL) students' ideas about explicit and implicit written corrective feedback. The authors attempt to answer the following questions: 1- What are Turkish secondary school students' attitudes towards writing in English as a foreign language? 2- What are their preferences in relation to two different types of written corrective feedback (explicit and implicit)?
In order to shed light on the students' opinions and preferences in terms of written corrective feedback, a study was conducted at a Turkish state secondary school in Istanbul. Fifty eight (58) sixth-grade female students, whose ages were between 13 and 14, participated in this study. Half of the students received explicit feedback on their essays, while the other half received implicit feedback. Students' opinions were collected via a questionnaire comprised of nine Likert-type items and one open-ended question during the fall semester of 2016-2017 academic year. The closed items were analyzed by conducting descriptive statistics, while qualitative data analysis was used for the answers to the open-ended item.

Results reveal that students in both groups preferred one type of written corrective feedback more than the other type. Various factors that might play a role in this result as well as suggestions for EFL teachers will be discussed in the presentation.

Keywords: L2 Writing, Efl Learners, Explicit Feedback, Implicit Feedback

ELECTROCHEMICAL BEHAVIOR OF PURE TITANIUM IMPLANTING IN ACIDIC ARTIFICIAL SALIVA

Shatha Abdullatif, Mayasah Aswad, Yasir Alkafaji

Titanium is used in dentistry for its unique combination of physical, chemical, and biological properties. The aim of present study was to evaluate the electrochemical behavior of pure titanium used for dental implants and for bridges in artificial saliva enriched with some kind of Iraqi food(acetic acid)with three pH (3, 4, 7.8) . Using the open circuit potential (OCP) measurements, potentiodynamic polarization, and electrochemical impedance spectroscopy (EIS). Electrochemical impedance spectroscopy is powerful, rapid and accurate method for the evaluation of the corrosion resistance.

Keywords: Titanium, Corrosion, Eis, Dental Implants, Electrochemical Teqniques

ENCRYPTION TIME COMPARISON OF AES IMPLEMENTATION WITH C AND JAVA

Tarik Yerlikaya, Yasin Akman

With the developing information technology, the need for information security is increasing. For this reason, information security is extremely important. Advanced Encryption Standard (AES) is one of the most used symmetric key algorithms. The AES algorithm is published and approved by Federal Information Processing Standard (FIPS). In this work, we aimed to compare the encryption time measurement of the AES implementation in Java and C programming language under ubuntu operating system.

Keywords: Aes, Encryption Time, Implementation

ENERGY SAVING IN VENTILATION SYSTEMS OF AGRICULTURAL BUILDINGS

M.j. Issakhanov, Sh.e. Sakipova, N.b. Alibek, T.s. Dyusenbaev

The article discusses the results of experimental studies of energy efficient ventilation system of sheepfold, using information-measuring system for remote registration of thermo technical parameters of the ventilation systems. They are given the results of testing of the experimental energy efficient ventilation system in the winter and summer periods. The description of the experimental energy-efficient ventilation system sheepfold for lambing.

Keywords: Energy Efficient Ventilation System, Low-potential Heat Of The Soil, Underground Duct, Heat Exchanger Sheepfold, Underground Heat Exchanger, Air Conduit, Soil Heat, Temperature Sensors, Sensors Of The Relative Humidity And Temperature

ENVIRONMENTAL LITERACY OF THE SLOVAK UNIVERSITY OF TECHNOLOGY STUDENTS

Dagmar Ruskova, Lubica Vaskova

The paper addresses the level of environmental and ecological literacy of the students of Slovak University of Technology in Bratislava. The authors deal with literacy in stated area in three synergetic dimensions: cognitive, emotional and active. In the cognitive level are mapped the general knowledge of students regardless of the technical field of their studies. They analyze students' views on teaching at the Technical University from the viewpoint of the need for clarity and acceptability of the effect of technology on the environment not only "here and now", but with a time lag of several years or decades. By the Semantic differential method they try to find the answer to the question about the quality of students' attitudes to the issue of development and environmental protection. They identify explicit and implicit factors (family, society, training and education process or teacher-student interaction, issues of pattern) which are dominant in the formation of positive and negative attitudes of students of university of technology to the creation and protection of the environment. Active dimension corresponds to measure of subjective activities of students in this area and refers to the relationship between power factor, evaluation factor and the activity factor in the semantic differential.

Keywords: Environmental Education,ecological Literacy, Cognitive Dimension, Emotional Dimension

ESTIMATING THE NUMBER OF HAVING MEAL ACCORDING TO WEATHER BY ARTIFICIAL NEURAL NETWORKS

Emrah Aydemir, Süleyman Çelik, Ferhat Toslak

All businesses and corporations that have to make decisions, must estimate events in the future and generate appropriate solutions within a good plan to protect and develop their current situation in the future. The purpose of estimate is providing to make businesses and corporations take precautions and foresee events which they will face in the future by using various data and techniques. Production should be made appropriately according to consumer demand by following up the alteration of consumer demand at all businesses and corporations. Plans should be made to use available benefits of sales and use funds most appropriately because of the aim of planning production is to reach the predetermined production goals. Because of estimating demands of product, which will be produced, is very important. Because anything do not be planned without knowing how much demand will be made for the goods to be produced. It is important in terms of time and cost for corporations, which gives meal to their stuff, to know how many people will eat at its refectory in the day. Number of people ,who have meal at corporation refectory, is changed according to different variables. In this study the data which is interested weather condition variable which is thought to effect condition of having meal and number of meal in the past three years will be used. Number of people who will have meal in the refectory in the day will be estimated according to weather condition.In the study Ahi Evran University refectory data will be used. Criterions which may effect meal number will be found out by using Ahi Evran University Jet card information system data.Also how many people may have meal will be estimated by associating with refectory data and weather conditions data in the past. The generated data set will be divided into two parts as training and test set. Training data will be trained and tested with artificial neural networks technique which is artificial intelligence methods. Estimate error will be obtained from the test data after the learning has been completed.

Keywords: Artifical Neural Networks, Estimation, Number Of Meal, Weather Conditions

ESTIMATION OF ITEM RESPONSE THEORY MODELS WHEN ABILITY IS UNIFORMLY DISTRIBUTED

Tugba Karadavut

Item Response Theory (IRT) models traditionally assume a normal distribution for ability. Although normality is often a reasonable assumption for ability,it is rarely met in educational and psychological measurement. Assumptions regarding to ability distribution were previously shown to have an effect on IRT parameter estimation. In this study, the normality assumption for ability was investigated for its adequacy to compensate the uniformity of the actual ability distribution. Model fit, and item and ability parameter estimates from IRT models with normality and uniformity assumptions for ability distribution were compared when the actual distribution was uniform.

Keywords: Item Response Theory, Irt, Uniform Ability

EVALUATING OF STUDENT SCIENCE TEACHERS' EXPLANATIONS ABOUT CONCEPT OF SOLUTION FROM THE PERSPECTIVE OF SCIENTIFIC EXPLANATION

Emre Harun Karaaslan, Nail Ilhan

Studies in science education reveal that students have difficulty to explain a question with the reasons of answer even if correct answer is given. On the other hand, there are limited number of studies about what scientific explanations are and how to make a correct scientific explanation in science education. The aim of this study is to evaluate student science teachers' explanation, their answers to the questions related to the daily life about concept of solution, from the perspective of scientific explanation. The sample of this study which is performed survey method consists of 120 student science teachers. Context based concept cartoons that were prepared as worksheets were used as data collection tool. There are conversations and three different characters in context based concept cartoons. The expressions of two characters include the wrong answer while the remaining one is the correct answer. Students science teachers were asked to choose a character they agree with and they were also requested to explain why they choose that character. The answers given by the student science teachers were analyzed by using qualitative descriptive and content analysis techniques. Findings have shown that the majority of student science teachers choose characters who say the true answer. However, when students were asked to explain why they chose this answer, it was determined that the explanations made by a majority of them have not "scientific explanations".

Keywords: Context Based Concept Cartoons, Scientific Explanation, Solution Concept, Student Science Teachers

EVALUATION OF OUTDOOR ACTIVITIES OF PHYSICAL EDUCATION TEACHERS

Fikret Alincak, Uğur Abakay

This study is a descriptive study designed to examine activities that physical education teachers have done outside of school. Using the state method of qualitative research methods in the study, 70 Physical education teachers working in secondary schools within the provincial borders of Gaziantep were identified as the study group. In order to collect data in the survey, open-ended questions about the out-

of-school activities of physical education teachers, created by the researcher, were asked. The answers that the research group gave to the questions were solved by the content analysis method. As a result of the research, it was determined that the physical education teachers participated in various courses and certificate programs in order to increase their personal and professional development, they regularly participate in the organizations outside the school and contribute to the development of physical education and sports in their regions. In addition, physical education teachers have been informed that the community is involved in activities to raise awareness about healthy living, and that students open various sports courses to contribute to the development of the sport.

Keywords: Physical Education, Sport, Teacher

EVALUATION OF POLYPHENOL CONTENT AND ANTIOXIDANT ACTIVITIES OF ETHYL ACETATE EXTRACT OF EUCALYPTUS GLOBULUS L.

Dalila Bencheikh, Seddik Khennouf, Saliha Dahamna, Fatima Benchikh, Abderahmane Baghiani, Prof.dr.amira Smain

The production of free radicals and other reactive oxygen species causes oxidative changes in the body. A wide array of plant have limitless ability to synthesize substances such as polyphenols, mainly flavonoids and phenolic acids which exhibit antioxidant properties due their hydrogen-donating. The present study aimed to evaluate the antioxidant activity the content of polyphenols and flavonoids, as well as examine the in vitro antioxidative properties of ethyl acetate extract (AcE) of the aerial part of Eucalyptus globulus L leaves, which are used in Algerian folklore medicine. The ethyl acetate extract (AcE) gives a yield of extraction of (4,74%).The analysis of this extract using DDPH revealed a close connection between the values of phenolic coumponds and the antiradical effect. In addition, the AcE extract contains 12035,29 µg equivalent acid gallic/g extract; 807,11µg acid equivalent tannic/g extract and 225,58µg equivalent quercetin/g extract for the total polyphenols, tanins and flavonoids respectively. This extract had a high antioxydant activity (IC50=0,011±0,00002 mg/ml) in the test of DPPH. Moreover, AcE reduces β-carotene peroxidation by 66,28%. These results provide useful information on the use of this plant material as a source for natural antioxidants.

Keywords: Eucalyptus Globulus L., Antioxydant Activity, Dpph, Polyphenols, Flavonoids

EVALUATION OF POLYPHENOL CONTENT AND ANTIOXIDANT ACTIVITIES OF ETHYL ACETATE EXTRACT OF TRIGONELLA FOENUM-GRAECUM L.

Dalila Bencheikh, Seddik Khennouf, Saliha Dahamna, Lekhmici Araar, Fatima Benchikh, Prof.dr.amira Smain

Several plants contain antioxydants which act on the production of the free radicals and all other products of oxidation in the organization. This study was carried out to evaluate the content of polyphenols and flavonoids, as well as to examine the in vitro antioxidative properties of ethyl acetate extract (AcE) of Trigonella foenum-graecum L. seeds which are used in Algerian folklore medicine. The AcE gives a yield of extraction of 3,14%.The analysis of this extract by the test of DDPH revealed a close relationship between the values of phenolic coumponds and the antiradical effect of the extract. The AcE extract contains 177,45 µg equivalent acid gallic/g extract; 891, 11µg acid equivalent tannic/g extract and 17,03 µg equivalent quercetin/g extract for the total polyphenols, tanins and flavonoids respectively. This extract had a high

antioxydant activity (IC50=0,466± 0,0148 mg/ml) in DPPH test. Moreover, AcE reduces the β-carotene peroxidation by 70, 98%. These results provide useful information on the use of this plant in traditional medecine in the pathologies where free radicals are implicated.

Keywords: Trigonella Foenum-graecum L .; Antioxydant Activity; Dpph ; Polyphenols ;β-carotene.

EVALUATION OF THE USE OF FLIPPED CLASSROOM BASED TUTORIALS IN "MATHEMATICS FOR CHEMISTS" COURSE FROM STUDENTS' PERSPECTIVE.

Ahmad Aljanazrah, Franz-josef Schmitt, Thomas Friedrich

Use of "Flipped Classroom" is gaining more and more interest in chemistry education. Within a project "educationZen" to enhance the quality of chemistry education using digital technologies at the Technische Universität Berlin, "Mathematics for Chemists I and II" courses have been implemented based on targeted flipped teaching approach. Within these courses students have been provided with online instructional videos about some of the topics addressed in the lecture and the face to face (tutorials) real time was used for other student-centered activities like cooperative problem solving and peer marking. The purpose of this study was to evaluate this experiment of applying flipped-classroom based tutorials to those courses from students' perspectives and to explore those views within the frame of their digital habits and attitudes toward the use of educational technologies in teaching and learning chemistry. In order to achieve the purpose of the study and answer its' research questions a combined quantitative–qualitative approach has been applied. The first part focusing on measuring students' digital habits and their attitudes toward the use of educational technologies was based on quantitative analysis of data that was gathered through online and face to face questionnaires. Qualitative evaluation was used to explore and examine the students' perceptions through focus group interviews. Findings have shown that 95% of the students are using internet more than one hour a day and most of the students liked to use online videos to support their studies. Students' attitudes were positive toward the use of digital technologies to enhance their chemistry learning but not to substitute the role of the lecturer. Most of students still value face to face interaction and do not see online learning environment as a total substitution to the traditional lecture even in the future. Study findings strongly recommend applying the online instructional videos in chemistry education and to extend this model to other courses and topics as a support rather than as a substitution to face to face interaction "the targeted flipped teaching approach".

Keywords: Flipped Classroom, Chemistry Education, Online Videos, Blended Learning, Technology In University Teaching

EVALUATION OF THEORETICAL AND EXPERIMENTICAL PROPERTIES OF 3-METHYL-4-DICHLOROACETYLAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

Songül Ulufer, Muzaffer Alkan, Özlem Aktaş Yokuş, Hilal Medetalibeyoğlu, Güventürk Uğurlu, Prof. Dr. Haydar Yüksek

The 3-methyl-4-dichloroacetylamino-4,5-dihydro-1H-1,2,4-triazol-5-one (Alkan, 2001) has been optimized using B3LYP/6-31G (d) and HF/6-31G (d) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09 (Wolinski, Hilton & Pulay, 1990). Experimental (Alkan, 2001) and theoretical values were inserted into the grafic according to equatation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. Theoretically calculated IR data are multiplied with appropriate adjustment factors and the data obtained according to HF and DFT method are formed using theoretical infrared spectrum. . IR absorption frequencies of this compound were calculated by two methods. The veda4f program was used in defining IR data which were calculated theoretically (Jamróz, 2004). The geometric properties (bond angles, bond lengths), thermodynamic

parameters, electronic properties (total energy, dipole moment), HOMO and LUMO energies, Mulliken atomic charges of 3-methyl-4-dichloroacetylamino-4,5-dihydro-1H-1,2,4-triazol-5-one has been investigated by using Gaussian 09W program. The spectroscopic and structural data of this compound has been calculated by using 6-31G (d) basis set with density functional method (DFT/B3LYP) and Hatree-Fock method (HF) and compared with experimental values.

Keywords: 1,2,4-triazol-5-one, Gaussian 09w, 6-31g (d) Basis Set, Dft, Hf.

EVENT-DRIVEN AND REAL TIME DATA MONITORING SYSTEM FOR PHOTOVOLTAIC SYSTEMS

Burak Inner, Kadir Beyazli, Emrah Gümüş, Şule Çiloğlan

Photovoltaic (PV) is a technology that can transform light into electricity. Electric signals are collected by using data loggers. Information is gathered by monitoring and analyzing instantaneous changes in electrical signals. One of the most common method to accomplish this operation is wired data transfer.
In this study, a software infrastructure was developed to transfer data such as voltage, current, temperature, radiation, humidity to the server which are obtained from PV systems that are placed in different locations. We used web socket and event-based programming in order to transfer the received data to the server and display the transferred data on the web after processing in the most efficient way in terms of performance and cost. One Raspberry Pi device has capability of receiving data from more than one FV system located at different areas. Bluetooth wireless transfer technology was prefered instead of wired transfer in order to accomplish data transfer between PV system and Raspberry Pi by considering the environmental conditions like high temperature, humidity, rain, snow. A software compatible with both Bluetooth 2.1 and 4.0 standards which is asynchronous, event-driven and non-blocking was developed on Raspberry Pi device by using Node.js. Data received by Raspberry Pi devices was transfered to the server simultaneously with Node.js over a web socket and this data was stored in a NoSQL database. A web site was developed to monitor data stored at server. The server load, which might occur by a lot of users watching the data on the server at the same time, is reduced by using event-driven web socket to refresh the page when data comes in. The importance of the system suggested in this paper is getting data from PV systems, sending to the server and displaying in a browser window event-driven. A high performance system, even at the low-end servers, like this system can easily be adapted to projects like wind panel, patient monitoring at home, home automation systems, even though developed for tracing PV panels. By storing data in JSON format at a NoSQL database, storing and analyzing different types of data is also possible.

Keywords: Photovoltaic, Monitoring System, Bluetooth, Node.js, Web Socket, Event-driven, Nosql, Raspberry Pi

EXAMINATION 8TH GRADE STUDENTS' COGNITIVE STRUCTURES ABOUT PHYSICAL AND CHEMICAL CHANGES THROUGH WORD ASSOCIATION TEST

Canan Nakiboğlu

In the previous study, high school students' cognitive structures about physical and chemical changes through word association test (WAT) were investigated and the results of ninth and tenth grades students were compared. Since this comparison can be provided to reveal if the instruction has an effect on the cognitive structure, it is important. In the previous study, it was found that differences in the students' cognitive structures at ninth and tenth grades make it clear that instruction affects the cognitive structure. WAT which is one of the methods for investigating students' knowledge structure has been chosen to obtain data in this study. The subject of the physical and chemical changes is one of the basic and essential issues of both in the high school chemistry curriculum and middle school science curriculum. For this reason, it was aimed to get how students' cognitive structures about physical and chemical changes exchange with the school level in the present study. The same WAT was used as a data collection instrument developed by the author in the previous research. The WAT includes eight stimulus words,

among them the chemical reaction, energy, chemical property, and physical property, is used to obtain students' cognitive structures. The WAT was applied to 126 students who are attending at 8th grade. At the end of the study, it was found that students could not associate with some concepts each other such as the concept of energy with other concepts of the subject could not be associated. Besides the findings of this study were compared with the findings of high school students obtained in the previous research. The similar results about the concept of energy were obtained in the both of the studies.

Keywords: 8th Grade Students, Cognitive Structures, Physical And Chemical Changes, Wat

EXAMINATION OF THE EPISTEMOLOGICAL BELIEFS OF THE TEACHER CANDIDATES ACCORDING TO SOME VARIABLES

Ayşe Gül (çirkinoğlu) Şekercioğlu, Hasene Esra Yildirir

This study aimed to determine the epistemological beliefs of 1004 teacher candidates studying at the Education Faculty, Secondary Grade Science and Mathematics Teaching departments, and the teacher candidates attending the Primary Grade Mathematics and Science Education departments and to examine whether these epistemological beliefs differ on the basis of gender, learning style, academic average, class level and department. The study made use of the Epistemological Beliefs Inventory (Schommer, 1990) and the Kolb Learning Styles Questionnaire. According to the analysis results, there were differences seen in dependent variables based on gender.

Keywords: Key Words: Epistemological Beliefs, Teacher Candidates.

EXAMINATION OF THE RELATIONSHIP BETWEEN STUDENTS' SPATIAL ABILITIES AND MATHEMATICAL ACHIEVEMENTS, AND THEIR ABILITIES TO SOLVE SOLID OBJECTS PROBLEMS

Ecem Özkayihan, Ayşe Tekin Dede, Büşra Günkaya, Süha Yilmaz

The common point of the studies on spatial ability is the way that there is a positive relationship between the geometry experience and the development of the spatial ability. It is seen that the studies on the relation between the spatial ability and solving problems related to solid objects which is the actual space dimension of geometry and covering all classes in mathematics teaching program are not fully included in the literature. The purpose of this study is to determine the relationship between mathematics grade-point averages and spatial abilities of 8th grade students and to examine the solution approaches of the students with different spatial abilities to solve solid objects problems. Participants are 64 8th grade students. The Santa Barbara Solids Test was used to determine the spatial ability levels of the students and the Solid Objects Success Test was used to determine the levels of solid objects problem solving skills in the study. As a result of the analysis of the data, there was a positive, moderate and significant relationship between the spatial abilities of the students and their mathematical achievements. However, there was no significant relationship between the spatial abilities of the students and their ability to solve solid objects problems. In addition, students were observed to have difficulties in solving solid objects problems requiring formulas, and they were a bit more successful in the problems that needed to visualize in the mind and maintain the object.

Keywords: 8th Grade Student, Mathematics Achievement, Solid Object, Spatial Ability.

EXAMINING THE ATTITUDES OF AZERBAIJAN BAKU TURKISH ANATOLIAN HIGH SCHOOL STUDENTS TOWARDS COMPUTER AND INTERNET USE ACCORDING TO GENDER

Güler Çavuşoğlu

The purpose of this study is to determine the attitudes of the students attending to Azerbaijan Baku Turkish Anatolian High School students towards computer and internet use according to gender. For this purpose, a questionnaire was applied to 308 students studying at this school in 2015 - 2016 Academic year. The questionnaire consisted of two parts. The first part consists of a Personal Information Part, and the second part consists of a Scale Form that has 30 items intended to determine the attitudes of the students towards computer and Internet use. 44,2% of the students who participated in the study were girls; and 55,8% were boys. The literature review method was used in the study. The dataset that was obtained as a result of the questionnaire was analyzed in SPSS 22.0 program. The reliability analysis was made for the computer and internet use scale, and the Cronbach's Alfa value was computed as 0,787; therefore, it is possible to claim that the scale is reliable according to Alpha Criterion. According to the findings that were obtained in the study, the computer and internet use frequency of boys for social networks, e-mail, entertainment, playing games is higher than that of the girls. As a result of the MWU test, it was determined that the viewpoints of boys were more positive than those of the girls in the following items; "I can learn how to use a computer without receiving education. / Using computer is fun. / I believe that I can learn how to use computer in an easy way. / Internet brings infinite freedom for people. / It is exciting to obtain information from the Internet. / I prefer doing research on the Internet instead of going to the library. / Preparing my homework by using books, encyclopedias, etc. instead of the Internet is boring and meaningless." It was recommended that the study should be conducted in the light of different variables in the schools of Ministry of National Education.

Keywords: Azerbaijan Baku Turkish Anatolian High School, Internet, Computer, Attitude, Gender.

EXPLORATION OF IRON ORE DEPOSIT IN ELBISTAN OF SOUTHERN TURKEY, USING MAGNETIC DATA

Rasim Taylan Kara, Ali Elmas, Ali Erden Babacan

The objective of this paper is geophysical exploration of the possible iron ore deposits of an area in Ekinözü town in Elbistan district in Kahramanmaraş-Southern Anatolian region, Turkey. To achieve this, Reduction to the Pole (RTP) magnetic data has been used with horizontal gradient magnitude (HGM) and tilt angle map (TAM) techniques which are two various boundary analyzing techniques to prospect the terrains and boundaries of iron ore deposit in the area. Also, first vertical RTP magnetic gradient map has been used to determine the locations of the possible iron ore deposits in the study area. The observed iron ore deposits are characterized with high magnetization contrast. The locations of proposed drill holes have been determined with varying depths between 25 to 40 meters.

Keywords: Iron Ore Deposit, Magnetic Data, Magnetic Gradient, Edge Detection, Depth Estimation.

EXPLORATORY STUDY ON ETHNIC-MINORITY ENTREPRENEURSHIP IN MACEDONIA: THE CASE OF ALBANIAN AND TURKISH ENTREPRENEURS

Veland Ramadani, Gadaf Rexhepi, Selajdin Abduli

Ethnic entrepreneurship is increasingly arousing interest for socio-economic studies. In this paper, we provide a picture about the characteristics of Albanian and Turkish entrepreneurs and their enterprises in the Republic of Macedonia. In the Republic of Macedonia live around 2 million inhabitants, where 509,083 (25.2%) are Albanians, while 77,959 (3.9%) are Turks. Since Albanians and Turks represent the greatest minorities in the Republic of Macedonia, we were interested to analyze businesses that are operated and managed by them. We conducted empirical research during the period April–June 2016 of 57 businesses, owned by Albanians and during September–October 2016 with 34 businesses, owned by Turks. We analyzed the motives for starting and managing one's own business, problems of these businesses, success factors, forms of organization, sources of financing, ethics and social responsibility of Albanian and Turkish entrepreneurs, etc.

Keywords: Ethnic Entrepreneurship; Models Of Ethnic Entrepreneurship; Macedonia; Albanians; Turks

EXPRESSION AND PURIFICATION OF A RECOMBINANT SERINE PROTEASE FROM BACILLUS SUBTILIS

Onur Atakişi, Canan Gülmez, Kezban Yildiz Dalginli

The proteases are important enzymes involved in numerous essential physiological processes and find multiple applications in various industrial sectors. They account for approximately 60% of the total enzyme sales in various industrial market sectors, such as detergent, food, pharmaceutical, leather, diagnostics, waste management, cosmetics and agriculture silver recovery. Subtilisin is a serine protease which is also utilized in industry like many other proteases. Large-scale production of subtilisin is aimed in this study using recombinant DNA technology. For this purpose, the coding sequence of subtilisin was optimized for E.coli codon usage. The subtilisin gene from Bacillus subtilis 1023 (PTTC) was synthesized and cloned in expression vector pD441-NH using SapI restriction sites by DNA 2.0. Then, recombinant vectors were transformed into competent cells E.coli BL21 and a positive colony was expressed in Luria-Bertani broth medium containing kanamycin. The culture was separately visualized by SDS-PAGE after induction with IPTG and purification. Recombinant subtilisin was purified in a single-step procedure by affinity chromatography using Ni-NTA agarose resin. The molecular weight of the purified protein was determined to be about 40 kDa by SDS-PAGE. Enzyme purity was estimated to be about 200- fold greater than that of the crude extract. Under optimum proteoliytic activity assay conditions, the purified enzyme had a specific activity of 56.16 U/mg, with a yield of about 87.9%. The kinetic parameters (Km and Vmax) values of the subtilisin enzyme from B.subtilis 1023 (PTTC) strain were 0.496 mg/ml and 2.0 U/mg, respectively. The optimum pH and temperature of the purified protease were 10.5 and 50◦C, respectively. Consequently, purified subtilisin from B.subtilis could be effectively used in many industrial applications, as an eco-friendly agent.

Keywords: Recombinant, Protease, Bacillus Subtilis, Purification.

EXTRACTING THE CONNECTIVITY PROPERTIES OF THE TURKISH HIGHWAY TRANSPORTATION NETWORK

Ilker Türker, Serhat Orkun Tan, Sabah Bashir Salem Rashed

As a complex system consisting of interconnected nodes, highway networks are a form of complex networks that cover a region to provide transportation between locations. In this study, we focused on the national transportation network of Turkey consisting of roads between the junction points. We extracted the network data from the KGM (Karayolları Genel Müdürlüğü) maps, which are divided into 18 detailed sub-sections. The nodes and edges data are collected manually, with a time-consuming process, also including the distance between junctions in kilometers. Once the data was exported to proper database tables, we performed network analysis and visualization procedures using Gephi software. We also executed some distributional analysis together with their plots in MATLAB. As a result, we extracted numerous network metrics together with the tables of top 20 cities by the means of eigenvector, betweenness and closeness centrality measures. By the way, these cities together with their connections emerge as the most important junctions of the network since they locate between the most important pathways connecting other cities.

Keywords: Transportation Networks, Complex Networks, Centrality, Data Analysis

FLRW UNIVERSE IN WEYL MODIFIED THEORY OF GRAVITY

Değer Sofuoğlu

In this study we consider the Weyl Gravity theory as a modified theory of gravitation. By applying the well-known effective curvature approach, we write the field equations of this theory in the form of Einstein field equations. As an application, we deal with the solutions of the equations for Friedmann–Lemaître–Robertson–Walker (FLRW) universe filled with a perfect fluid and we compare the results with obtained for the Einstein's General Relativity theory and also discuss about the differences between these two theories.

Keywords: Weyl, Modified Gravity, General Relativity, Cosmology

FN-DBSCAN-GM: A PARAMETER FREE AND ROBUST VERSION OF DBSCAN ALGORITHM

Fatma Günseli Yaşar, Semih Utku, Gozde Ulutagay

Today, the popularity of cloud technology, internet of things applications and big data concepts are steadily increasing. In addition to the size of the resulting data, the necessity of making it meaningful is also important. Different methods and researches are becoming widespread and applied. Clustering is one of the methods commonly used in applications in the process to reach knowledge. This study proposes a new clustering algorithm, called FN-DBSCAN-GM. This algorithm does not need input parameters. Moreover, it is observed that the FN-DBSCAN-GM algorithm is more robust than DBSCAN (density-based spatial clustering of applications with noise) algorithm, and it provides more correct results for some known datasets. K-Means and G-Means algorithms also are used and are analyzed in the current work

Keywords: Fuzzy Clustering; Fn-dbscan; Parameter Free Algorithm

GAMIFICATION OF TEACHING THE PERIODIC TABLE: TEACHING PRACTICES OF SCIENCE PRE-SERVICE TEACHERS

Burcu Anilan, Şengül S. Anagün, Hüseyin Anilan, Nurhan Atalay

Students define the problems around them, make observation, establish hypothesis, make experiments and make deductions by interpreting the data that they obtained in the science course, and interpret their surrounding and the world. Science cannot find a place in the lives of students unless they adopt, show interest, love this course. However, science curriculum includes numerous topics that are too abstract, complex for the kids which causes students to encounter difficulty in following the course, to exhibit negative attitudes. Science teaches may employ various interesting practices and activities within the science teaching-learning process, in order to ensure that students acquire basic skills of science. One of the activities used to draw attention of students in science course is teaching with games. Games, which have an important place in the life of the children, can be used in many courses that have a complex and abstract content, such as science. The objective of this study is to reveal the educational games that science pre-service teachers have designed for the instruction of periodic table, their opinions about this issue. The research was realized using qualitative method. Participants were 42 science pre-services teachers, who were attending science teaching program, in the education faculty of a university. Science pre-service teachers have designed educational games for teaching periodic table, within the scope of "General Chemistry I" course, presented the educational games that they have designed in the classroom. Research data were collected through document review, a questionnaire consisting open-ended questions. The data were analyzed using descriptive analysis. As a result of the research, it was found that science pre-service teachers have named their educational games as know, find, this is the table, they have used visuals while designing educational games, they cared for developing low-cost educational games, they formed the rules of the game.

Keywords: Periodic Table, Educational Games, Science Pre-service Teachers

GAUSSIAN CALCULATIONS OF 2-METHYL-6-[(3-METHYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ON-4-YL)-AZOMETHIN]PHENYL FURAN-2-CARBOXYLATE

Muzaffer Alkan, Murat Beytur, Abdurrahman Gürbüz, Güventürk Uğurlu, Haydar Yüksek

In this study, 2-methyl-6-[(3-methyl-4,5-dihydro-1H-1,2,4-triazol-5-on-4-yl)-azomethin]phenyl furan-2-carboxylate was synthesized by the reaction of 3- methyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-one with 2-methyl-6-formylphenyl furan-2-carboxylate, which was synthesized by the reaction of 2-hydroxy-3-methoxy-benzaldehyde with furan-2-carbonyl chloride by using trimethylamine (Alkan, Yüksek & Gürbüz, 2015). The compound synthesized were characterized by IR, 1H-NMR, 13C-NMR and UV spectral data. This compound was optimized by using the B3LYP/6-311G (d,p) and HF/6-311G (d,p) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09W (Wolinski, 1990). Experimental (Alkan, Yüksek & Gürbüz, 2015) and theoretical values were inserted into the graphic according to equitation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. IR absorption frequencies of analyzed molecule were calculated by two methods. The veda4f program was used in defining IR data which were calculated theoretically (Jamroz, 2004). The experimental and the obtained theoretical values were compared and found by regression analysis that are accurate. Furthermore, geometric properties (bond angles, bond lengths and dihedral angles), electronic properties (total energy, dipole moment), the highest occupied molecular orbital (HOMO) and the lowest unoccupied molecular orbital (LUMO), Mulliken atomic charges have been investigated by using Gaussian 09W program.

Keywords: 1,2,4-triazol-5-one, Gaussian 09w, 6-311g(d,p) Basis Set, Giao, Vibrational Frequencies.

GEOGRAPHICAL THINKING APROACH IN GEOGRAPHY EDUCATION

Abdullah Balciogullari

Every environment where people live is geography and so geography is the life of human. Two things affect each other. The environment in which the person lives is not different from the people, and the two are not independent of each other. It is difficult to tell when and where first appeared the geography. Perhaps the first geographer was the first person to climb a river or to pass a stream to see what was on the other side. Maybe that person has asked himself the questions that geographers still ask: “Where is it and what is there?” Geography is basically what people have in their own building; about "places and other countries are the product of old and irresolvable curiosity (Tümertekin, Özgüç, 2000). Studies carried out in teaching geography are mainly aimed at determining the encountered problems. One of the main objectives of geography education is to improve geographical thinking skills. Every work in this field will help students to identify themselves and the entire universe; and use the information in their daily lives. The studies about geography teaching in Turkey mostly focus on topics such as course book, concepts and encountered problems. With the acquisition of geographical thinking skills, students have the opportunity to think, synthesize, analyze and evaluate geographic information. In today, the main goal of our education system should be to acquire the skills of achieving knowledge rather than transferring the existing knowledge to our students. This is achieved by higher-level thinking skills. In other words, learning requires by grasping, solving problems about new situations and scientific methods. Actually enter 21st century it will be more accurate with only good geography education (Fitzhugh, 1992). Today the nature of geographical information is very different than it was fifty years ago. Systematic approach and technical innovation and analysis changed the basis of the nature of geographic information (Golledge, 2002). In many places, geography education takes a small place in the social sciences curriculum (Gritzner, 2003). Geography was limited to the tasks of memorizing the names of students, countries and their capitals. The definitions of map legends or the meaning of colour lines were considered as geography education (Stallworth ve Braun, 2000). Geography education should focus on learning phenomena why and where are there. As can be understood from the above general explanations geography lessons are first place in educating individuals who can think understand and inquire. Geographical thinking skills are take place near the top methods that students can use to cope with the problems they encounter. Geographic skills provide the necessary tools and techniques for us to think geographically. They are central to geography’s distinctive approach to understanding Earth’s physical and human patterns and processes. Geographic skills are used in making decisions important to everyday life. The geographic skills required of a geographically informed person consists of five sets of skills adapted from the Guidelines for Geographic Education: Elementary and Secondary Schools, prepared by the Joint Committee on Geographic Education by the Association of American Geographers and the National Council for Geographic Education. The five skill sets are as follows: Johnson also emphasizes that these standards are fundamental skills in providing geographic thinking (Johnson, 2000). These;

1. Asking Geographic Questions
2. Acquiring Geographic Information
3. Organizing Geographic Information
4. Analyzing Geographic Information
5. Answering Geographic Questions

In this study; “What is geographic thinking approach? What are the main features of the geographical thinking process? How the geographical thinking learning process should be organized in terms of geography education in middle schools?” Questions will be tried to be answered. For this purpose, will be developed an implementation plan of geographical thinking skills.

Keywords: Geography, Geographical Thinking, Education,

GEOTHERMAL SOURCE RESEARCH WITH GRAVITY AND ELECTRICITY METHODS

Ali Elmas

The study area is near Afyon. There are many geothermal wells in the immediate vicinity of the area with 55-120 °C temperature. After the gravity method results, information was collected about the local tectonic structure, the basis uplift and subsidence basins. As a result of electrical applications, construction of the underground was studied to determine the cracks and broken systems, geothermal activity, location and depth. Thus, it was aimed to investigate the geothermal energy potential of the field. It was tried to determine the total thickness of the sedimentary units and the thickness and the depth of the bedrock in the field. It was determined the boundaries of the possible hot areas determining the places where geothermal energy activity is intensive.

Keywords: Electric, Gravity, Geothermal, Metamorphic Rocks, Gravity First Derivative

GLOBALIZATION AND CHANGING SOCIAL CLASSES

M. Çağlar Kurtdaş

Individuals and groups differ according to various characteristics and they are positioned differently within the social structure in almost every society. Individuals and groups are grouped according to certain criteria and hierarchically ordered, is defined as social stratification. The quality and criteria of stratification have varied throughout history. The quality and quantity of stratification have also changed, as societies have grown and developed. The main point of this change is that the stratification patterns change as the society's structure changes. The transition from traditional societies to modern societies has also changed the structure of social stratification. Social classes have emerged with the Industrial Revolution. Social classes shaped by economic relations have created a different stratification form from traditional agricultural societies. Social classes are transformed with the process of globalization and acquire a different quality. Globalization emphasizes economic, political and cultural integration and that the world is a single interconnected and integrated place. Globalization has important effects on the social structure. In this respect, globalization changes the class stratification system. This study aims to discuss globalization's changes in social classes.

Keywords: Stratification, Industrial Revolution, Social Class, Globalization.

HIGH LEVEL CONSTRAINTS WEIGHTING ON THE POSSIBLE SHAPES A KNOWLEDGE CAN TAKE ON

Pierre Job, Jean-yves Gantois

In this paper, we present a study that can be seen as a bridge between didactic researches centered around epistemological concerns like epistemological obstacles and sociological approaches that can be used in educational sciences. To do so we use an anthropological approach to the didactic of mathematics, the anthropological theory of the didactic (ATD) and in particular its “scale of levels of didactic codetermination”. This enables us to bring into the fore a set of constraints located at a high level of this scale. These constraints taken separately can be deemed weak but when they are considered together

they form a network that restrains the possible shapes a knowledge can take on. In our case this means that the epistemological consistency of the knowledge taught in an undergraduate course in mathematics we take part in can hardly be met. Plainly put it means the course is based around what seems at first to be a rather casual content for students in economy, at least in the Belgian setting. The course mainly deals with elements of logic and elements of linear and nonlinear optimization. Looking closer though it appears that the internal consistency of the course is dubious. For instance, some definitions are erroneous with respect to the results they are supposed to allow and the arguments used to support these results are shifting in nature. Sometimes they are of algebraic nature and other times they solely consist of a graphical sketch. The scale of level of codetermination allows us to make sense of what would otherwise appear to be a simply ill-conceived mathematic course which is barely understandable considered it what designed by PhDs.

Keywords: Atd Epistemology Anthropology Mathematics

HIGH SCHOOL STUDENTS' DEFINITIONS OF QUADRILATERALS

Esra Demiray

The purpose of this study is to investigate how high school students define quadrilaterals. According to the related literature, students at various levels have difficulties in definition and classification of quadrilaterals. Since quadrilaterals were introduced to students in middle school mathematics course and also there are objectives related to quadrilaterals in high school mathematics curriculum in Turkey, high school students are expected to have a conceptual understanding of quadrilaterals and to be able to state definitions properly. By considering these points, a cross-sectional survey was carried out. The sample of the study was chosen via convenience sampling. The data were collected from 214 students from a public high school in the Marmara Region. In terms of their year level, 50 of them were the 9th grade students, 55 of them were the 10th grade students, 64 of them were the 11th grade students and 45 of them were the 12th grade students. High school students were asked to define six quadrilaterals which are square, rectangle, rhombus, parallelogram, kite and trapezoid. To analyze data, content analysis was conducted. The findings obtained from this study presented that high school students were able to define some quadrilaterals such as square and rectangle whereas they had difficulty in defining kite and trapezoid. Moreover, majority of the participants tried to define a given quadrilateral by listing all characteristics of it. It was also observed that high school students did not focus on the hierarchical relations among quadrilaterals in their definitions. Since students' definitions are affected from the prototypical images in their minds, the participants might not consider key points regarding the hierarchical classification of quadrilaterals in their definitions.

Keywords: Quadrilaterals, High School Students

HOW DO FIRST AND FOURTH YEAR PALESTINIAN UNIVERSITY STUDENTS IN SCIENCE FACULTIES DESCRIBE THEIR UNDERSTANDING OF SOME ABSTRACTIVE CONCEPTS AND PRINCIPLES IN QUANTUM MECHANICS?

Sahar Ismail, Musa Khaldi

The purpose of this study was to explore first and fourth year science faculty students in Palestinian universities understanding of the basic abstractive concepts and principles in quantum mechanics, and the potential alternative concepts they hold about the topic. The research also seeks to trace and describe the development of these concepts over the students' university education from first year level up till their fourth year in study in the four main themes of the topic: uncertainty principle, indeterminacy, wave–particle duality, and atomic model. The research was configured around the following research question: How do first and fourth year university students in science faculties describe their understanding of some abstractive concepts and principles in quantum mechanics? To achieve the research goals, a diagnostic quantitative exam was designed to capture with the alternative concepts students might carry in the topic. It was used to collect data from a representative sample in three Palestinian universities: Birzeit, Al Najah and Al-Quds. Semi-structured interviews were also developed and conducted on a small sample from the body of the students who answered the exam, in order to get a clearer description and analysis of students' various range of understanding, and the potential reasons behind these alternative concepts in the body of the students. The research instruments validity and reliability was confirmed by a group of specialized arbitrators. They were also tested on a pilot before the final application of them on the body of the whole sample. Internal consistency of the sample answers was measured. It gave a 0.6 Cronbach Alpha coefficient value. The study findings revealed a low average rates for correct answers in the first and fourth year students indicating a fairly low understanding of the topic. Moreover, there was a wide range of desperation in the average rates of alternative concepts held by the students in the topic main themes; the highest rate was in uncertainty principle while the lowest was in indeterminacy. The results indicated that first and fourth year students rate of alternative concept were almost similar around wave particle duality and atomic model. The results of qualitative analysis of the interviews demonstrated that most first year students hold classic ideas in describing their understanding of the abstractive concepts and principles, while most of fourth year students mixed up between quantum and classical ideas. The result of this study were in line with the results of other regional and international studies that had been reviewed for the sake of the study, which confirmed that students at all academic levels suffer from lack of a mature understanding of the topics of quantum mechanics and carry some alternative concepts. Based on these results, the study ended up with some recommendations for practice and for future studies.

Keywords: Uncertainty Principle, Indeterminacy, Wave–particle Duality, Atomic Model, Basic Abstractive Concepts And Principles

HOW DO PROSPECTIVE BIOLOGY AND MATHEMATICS TEACHERS DIFFER IN TERMS OF THEIR PRESENTATION PREPARATION STATUSES

M. Handan Gunes, Rezan Yilmaz

In today's world where technology rapidly improves, when it comes to teachers' general competencies regarding the process of teaching and learning, teachers are expected to design and accurately and effectively use instructional technology and materials related to their own field while preparing a qualified setting. Within that context, Instructional Technologies and Material Design courses are provided in education faculties. This study has been conducted with 24 prospective mathematics teachers and 30 prospective biology teachers studying at the Department of Mathematics and Science Education in the

Faculty of Education of a state university. Within the scope of this course, the prospective teachers were asked to prepare a power point presentation, which is associated with an acquisition of their own curriculum, in the classroom. The participants designed their presentations by taking criteria such as clarity, accuracy, convenience etc. as their basis in terms of content; and by accepting text, base, color etc. as their criteria in terms of visual design. The presentations prepared were evaluated according to these criteria, which were accepted as the basis by both the participants and the researcher during the design phase in the classroom settings. These evaluations are considered as data. The data were analyzed by comparing the evaluation of the researcher and the self-evaluation of the participants. The obtained results suggest that the evaluations by the prospective biology teachers are similar to the evaluations by the researcher, whereas; some of the evaluations by the prospective mathematics teachers display differences with those by the researcher, in terms of the criteria that were taken as the basis.

Keywords: Prospective Teacher, Power Point Presentation, Instructional Material

HOW IS THE LIMIT CONCEPT IN THE SEQUENCES UNDERSTOOD BY THE STUDENTS?

Abdullah Çağri Biber, Abdulkadir Tuna, Lütfi Incikabi, Samet Korkmaz

The deficiencies in the subject knowledge constitute an obstacle to effective teaching of mathematics (Halim & Meerah, 2002; Smith, 1999). The subject field knowledge requires knowledge of the basic concepts and principles related to the topic to be taught and to be associated with other knowledges (Çimer, 2008). The mathematics course in which conceptual understanding is important includes abstract, complex, and hierarchical concepts (Nesbit, 1996). Nevertheless, these concepts become more abstract and complex in the progressive class levels. As a consequence of this situation, some difficulties are encountered in teaching and learning mathematical concepts. One of the subfields of mathematics is the analysis topics which are encountered by the students in the teaching and learning of mathematical concepts (Çetin, Dane, & Bekdemir, 2012). When it comes to analysis, one of the first concepts that comes to mind is to limit the most basic one. The concept of limit has a very large proposition in terms of being able to understand many important concepts such as continuity, series, derivative and integral (Arslan & Çelik, 2013). One of the topic with which the concept of limit is related is the sequences. This study aims to examine the conceptual knowledge of mathematics teacher candidates about the limit topic in the sequences, and it is a case study from the research types widely used in qualitative research approaches. The case study is used to describe and view the details that bring a phenomenon to the stage, to develop possible explanations for the event, and to evaluate the event (Gall, Borg & Gall, 1996). The first phase of the study was conducted with a total of 45 teacher candidates taking the course of Analysis III. At this stage, the "Limit Information Test in Sequences", which was developed by the researchers to investigate the concept knowledge of the sequence concept, was used as a data collection tool. In the second stage of the research, individual interviews were conducted with 8 teacher candidates selected from the sample in order to conduct an in-depth examination of conceptual information on the subject of the sequences. Content analysis was used to analyze the obtained data. As a result of the analysis of the data, significant shortcomings were found in the knowledge of the concept of the limit topic in the sequences of teacher candidates. It is seen that the candidates do not know enough about the importance of the concept of "accumulation point", which is indispensable to convergence.

Keywords: Mathematics Education, Concept Teaching, Limit Concept, Sequences

I-STATISTICAL CONVERGENCE OF ORDER ALPHA FOR DIFFERENCE SEQUENCES

Hafize Gümüş

In recent years, there have been many studies on I-statistical convergence and after these studies a new perspective was developed for these studies using an alpha number. We define this summability method for diffe- rence sequences and we also use lacunary sequences to define some new sequence spaces. After giving these descriptions, we investigate their relationship and we obtain some results.

Keywords: Statistical Convergence, Ideal Convergence, Difference Sequences, Lacunary Sequence

IDENTIFYING TRAFFIC CONDITIONS THROUGH CLUSTERING IN VANET

Ayman Abufanas, Evtim Peytchev

Cooperative vehicular network has been one of the most studied areas for developing the intelligent transportation system (ITS). It is considered as an important approach to share the periodic traffic situations over vehicular ad hoc networks (VANETs) in order to improve issues of travel efficiency and safety in congested areas. Recently, VANET is becoming an important part of the ITS which is the convergence of telecommunications, computing and wireless systems with the aim of improving transportation in terms of efficiency, safety and traffic management. This paper focuses on the investigation of effects of various traffic characteristics on the traffic conditions in particular areas in city scenario. Then it presents a novel model to identify traffic condition through clustering of vehicles. In our model, each vehicle over the roads is considered a single node which senses the traffic characteristics (position, traveling speed, and direction) and utilise from these data to improve traffic awareness in such area. The model does not rely on any type of communication infrastructure (e.g, road side unit RSU) in stage of identifying traffic conditions. It is implemented and tested in a wireless network simulator in term of time delay and stability of clusters.

Keywords: Its, Vanets, Traffic Detection, Clustering

IMAGES AND DEFINITIONS FOR THE CONCEPT OF FUNCTION AMONG JUNIOR HIGH SCHOOL STUDENTS

Shaker Rasslan, Mamoun Jebara

This study examined some aspects of the images and definitions that junior high school students have for the concept of the function concept. Concept images and concept definitions model were discussed in detail in several papers since 1980 (Tall & Vinner, 1981). According to this model many mathematics curricula's were improved in many countries. Therefore we will introduce them here very briefly.
All the mathematical concepts except the primitive ones have formal definitions. Many of these definitions are introduced to junior, senior high school and colleges students. The learners, on the other hand, do not necessarily use the definitions when deciding whether a given mathematical object is an example or non-example of the concept. In most cases he or she decides on the bases of a concept Image, that is, the set of all mental pictures associated in student's mind with the concept name, together with the properties characterizing them. By mental pictures we mean any kind of representation: picture, symbolic form,

diagram, graph, etc. The student image is a result of the learner experience with examples or non-examples of the concept. Hence, the set of mathematical objects by the learner to be examples of the concept is not necessarily the same as the set of mathematical objects determined by the definition. If these two sets are not the same, the learner's behavior may differ from what the teacher expect. To improve communication, we need to understand why it fails. Therefore, it is important to explore the learner's images of various concepts. In many mathematical textbooks one can find the formal Dirichlet-Bourbaki definition of function: " is a function of a variable , defined on the interval , if for every value of the variable in this interval there corresponds a definite value of the variable ". Images held by 98 junior high-school students for the concept of a mathematical function were compared to the definitions they gave for the concept. A questionnaire was designed to exhibit the cognitive schemes for the function concept that become active in identification and construction problems and to make possible the comparison of these schemes with the definition. According to the formal definition of a function, the results show that only eighteen students out of 98 (18.4%) gave a definition of the function concept. 17 students out of 98 (17.3%), 23 students (23.4%), 3 students (3.1%), and 17 students (17.3%), claimed that function is a relation between two variables, an algebraic expression or a table or a graph, and a relation respectively. 10 students (10.2%) gave erroneous definitions and 10 students (10.2%) not responding.

Keywords: Concept Images, Concept Definitions, Mathematical Function.

IMPACT LEVEL FACTORS: ANXIETY, QUALITY OF LIFE, AND ACADEMIC PERFORMANCE ASSOCIATED WITH IRRITABLE BOWEL SYNDROME CONDITIONS AMONG STUDENTS AT ZAKHO TECHNICAL INSTITUTE IN KURDISTAN REGION, IRAQ

Mohamed Sadeq Al-ibrahim, Ahmad H. Ibrahim, Ghanem Muhsen Jaafar, Nalan Linda Nalan Linda Fraim

Introduction: Irritable bowel syndrome (IBS) is a chronic disorder of the lower gastrointestinal tract that is caused by a variety of possibilities ranging from bacterial infection to environmental situations such as contaminated water. IBS can affect anyone at any time under any circumstance. Objectives: This study examined how the symptoms of IBS impacted the levels of anxiety, quality of life, and academic performance among Iraqi students studying at the Zakho Technical Institute located in the city of Zakho in Northern Iraq. Methodology: Findings from this study suggest that 16% of the sample were currently suffering from IBS. A total of 357 students participated in the study. Results & Discussion: from the study indicate a gender difference in how food was cooked and living arrangements. One explanation for this finding can be sought out in the cultural makeup of the Iraqi society. Another finding suggests that students with severe levels of anxiety had a GPA of CC. In addition, an interesting finding was that more than 90% of the sample reported having below average quality of life levels. Both positive and negative correlations were found among demographic variables. Level of anxiety and quality of life were also found to be correlated. Many possible explanations exist for these findings. Conclusion: due to the fact that historically Iraq is in a post-Saddam era which constitutes a post-war setting where Post-traumatic Stress Disorder, contaminated water sources, and due to the lack of agricultural prospects the importation of food from unknown origins may have contributed to the development of IBS.

Keywords: Irritable Bowel Syndrome, Anxiety, Quality Of Life And Academic Performance.

IMPLEMENTATION OF RSA ENCRYPTION ALGORITHM WITH JAVA

Yasin Akman, Tarik Yerlikaya

RSA public key cryptosystem is proposed by Rivest, Shamir and Adleman of USA Massachusetts Institute of Technology (MIT), which is named after the three inventors. The RSA is the most used and most successful asymmetric key encryption algorithm for digital signature and encryption processes. The algorithm is a method of encryption based on the difficulty of factoring into integer numbers. This paper presents, implementation with Java programming language and structure of the RSA encryption algorithm.

Keywords: Rsa, Encryption, Implementation

IMPROVING EFFICIENCY OF OPERATIONAL EDUCATION BY USING VIRTUAL REALITY

Gazi Koçak, Yalçin Durmuşoğlu

Virtual reality is one of the novel technologies used mostly for entertainment purpose. It is really a good environment to enhance the feeling of user during playing the game and to obtain a realistic environment. Besides, this technology can be utilized as an educational tool. By this way, the students will learn the subject by using more senses in a funny method. The meaning of operational education is a kind of hands on education in which a series of procedures should be completed in a correct order and a limited time. However, the tools and hardware are needed for hands on education which means high cost. Virtual reality is one of the solutions to achieve operational education without using many hardware and tools by it is capability to simulate the realistic environment. Actually, it has been already started to use in education of military and medical students. In our case, we focus on the education of marine engineers which includes many operations of a very complex power system. Therefore, it will be possible to teach many kinds of mechanical operations with only virtual reality tools and eliminating a large amount of expensive hardware.

Keywords: Virtual Reality, Marine Engineer, Operational Education, Innovation, Technology

IMPROVING MESSAGE DELIVERY IN VANETS USING MAPPED TRAFFIC DATA

Nnamdi Anyameluhor, Evtim Peytchev, Richard Germon, Javad Akhlaghinia

Vehicular Ad-hoc Networks (VANETs) are wireless communication networks for vehicles that do not require any fixed or central infrastructure. It forms an important part of the intelligent transport system (ITS) which is the convergence of telecommunications, computing and wireless systems with the aim of improving transportation in terms of efficiency, safety and management. In addition to the aforementioned uses of ITS, VANETs will contribute in service access, cooperative driving, entertainment and navigation for cars of the future. This paper focuses on the investigation of effects of various road traffic parameters on the behaviour of the wireless communication network. it will also describe a novel framework for message delivery in VANETs which goes beyond the routing protocol in employing a pre-defined map produced by current wireless network conditions as influenced by the existing road traffic situation to determine what routes messages are delivered through within the network. It aims in reducing messages delivery failure, reduce delays in the message delivery where possible and generally improve the

utilisation of vehicles as communication nodes and relays. Deployment and real life tests of experiments in VANETs can be costly and impracticable in varying different factors involved in the experiment, therefore all work will be evidenced through simulation, however, some of the data used is based on historic data collected from systems such as Nottingham SCOOT in order to assess the performance of the model and to achieve realistic results.

Keywords: Vanets, Message Delivery

INSPECTING THE POTENTIAL OF PHYSIOLOGICAL AND VIRULENCE TRAITS OF C. MALONATICUS

Abdlrhman Alsonosi, Stephen Forsythe

C. malonaticus is an opportunistic pathogen usually linked to adult infections. However, recent reports have shown the involvement of this species in neonatal infections. It is a foodborne pathogen, present in several types of dry food including powdered infant formula. To cause a disease, foodborne pathogens need to tolerate diverse conditions including desiccation, high pH and they must be able to survive several host conditions such as stomach acid and human serum. The ability of used strains to form biofilm, capsules and tolerate acid and desiccation were investigated used infant formula. Semi-solid agar, blood agar, milk agar, CAS agar and human serum were used to investigate motility, and production of haemolysins, protease, siderophores respectively. Genome analysis has been also conducted. C. malonaticus strains vary in their ability to form a biofilm. Four strains were non-motile. Not all strains were able to produce capsular materials. ST60. ST307 and four ST7 strains were not able to produce any capsular materials. C. malonaticus showed the ability to tolerate acidic condition at 3.5 pH, however, one strain showed no ability to tolerate after 30 minutes. The generation of injured cells upon desiccation showed a general reduction in cell recovery. However, a greater recovery was shown on TSA (P

Keywords: Cronobacter Malonaticus, Physiological Traits, Virulence Traits, Infant Formula

INTERRELATIONS BETWEEN HIGH SCHOOL STUDENTS' ACADEMIC MOTIVATION AND CHEMISTRY PERCEPTIONS

Canan Koçak Altundağ, Fatma Alkan

Motivation is described as a process in which an activity is initiated and continued for a purpose. It is a state that determines the level of one's willingness to participate in an activity. Motivation contains belief, internal forces, and reactive behavior against stimuli. Perception is to reveal individuals' beliefs and ideas in a certain way. It is important to have basic chemistry knowledge in our day, so the determination of the chemistry perceptions of students has gained importance. In literature, the relationship of academic motivation with various variables such as school performance, problem solving and metacognitive awareness have been examined. Different from the previous examples in literature, however, in this study, the aim is to examine high school students' academic motivations in terms of their chemistry perception levels. Study group consists of 1091 high school students who are enrolled at high schools in Ankara. At the end of the study, it was determined that there is a statistically meaningful relationship between high school students' academic motivations and their chemistry perception levels. This result can be interpreted as high school students with high academic motivations also having high chemistry perception.

Keywords: High School Students, Academic Motivation, Chemistry Perceptions

INTRODUCING EUCLID DIVISION TO PROSPECTIVE PRIMARY SCHOOL TEACHERS BY DESIGNING AN EDUCATIONAL DIGITAL GAME

Mustafa Gök, Mevlüt Inan, Kamil Akbayir

Using educational digital games in the education of prospective teachers is of great importance for presenting examples and indications on how technological developments can be used in the education environment. The purpose of this study is to teach Euclid division algorithm which is a mathematical concept to prospective primary school teachers by using a designed educational digital game. This work was supported by Research Fund of the Yuzuncu Yil University. Project Number: SBA-2017-5256. A-didactical situations, which are among the basic components of the Theory of Didactical Situations (TDS), were used by the researchers to design the digital game. The design of the study was based on a qualitative study method. The study participants consisted of 26 prospective primary school teachers, including 14 female and 12 male, who attended a public university. A pilot study was performed by applying the digital game designed by the researchers to three prospective primary school teachers. Following the pilot study, certain changes were deemed necessary in the game's scoring system, visual design and sound effects. The digital game was then applied to two different groups. The first application was performed on 12 persons (8 females and 4 males) and lasted 73 minutes, while the second application was performed on 14 person (6 girls and 8 boys) and lasted 67 minutes. Data obtained during these applications were collected by recording the study-related activities with a video camera and a digital voice recorder. Data analysis was performed in accordance with the DDT's phases. Analysis of the results showed that using the educational digital game designed by the researchers according to the TDS enabled the creation of a milieu where prospective teachers could learn the Euclid division, a mathematical concept. It is thought that teaching mathematical concepts with specifically-designed educational digital games during the education of prospective teachers may play an important role with regards to offering a different viewpoint on how technological devices can be used in the classroom environment.

Keywords: Theory Of Didactical Situations, A-didactic Situations, Milieu, Educational Digital Game, Prospective Teachers

INVESTIGATING APPLYING DIGITAL DEADBEAT CONTROLLER TO AUTOMATED ANESTHESIA INJECTION SYSTEM

Dr.mohannad K. Sabir, Rabab Alaa Hameed

Anesthesia is not only important for surgery but also for intensive care. The anesthetic agent, e.g. a barbiturate, is administered intravenous anesthesia to effect. Intravenous anesthesia provides rapid onset, stable maintenance, and rapid recovery compared with inhaled anesthetics. The aim of this work was to investigate a reliable and safe controller for delivering automatic intravenous anesthesia system using simulated closed-loop control technology. Drug effect is measured during drug infusion in closed loop anesthesia (CLAN). This may provide superior safety, better patient care, and better quality of anesthesia whilst relieving the clinician of the need to make recurrent and minor alterations to drug administration. A new and generic mathematical model (Pharmacokinetic/Pharmacodynamics PK/PD) of the drug behavior inside the body was used in simulation of closed-loop control drug pumping. Deadbeat controller is used to control the drug pumping using the PK/PD patient's drug effect model and different parameters were investigated to determine their effects on the final response of the patient to the anesthesia. The investigated parameters are, different levels limiter to limit the control signal (drug infusion), and the number of the digital bits used in the digital controller that affect the performance of the anesthesia system. These investigating lead to the best values which give best results.

The CLAN system was tested using published data of virtual patients modelled. MATLAB \R2015 is used to simulate the proposed controller trying to reduce the dependency on external sensors as a feedback to the control system. The results were very optimistic which lead us to continue the work in the future using different controllers at a certain sequence to enhance the overall intravenous anesthesia performance.

Keywords: Digital Controller, Anesthesia Feedback Control System ,patient's Model Anesthesia Control System

INVESTIGATING THE FACTORS IMPACTING PRESERVICE TEACHERS' ASSESSMENT LITERACIES: A STRUCTURAL EQUATION MODELLING

Kemal Izci, Gürbüz Çalişkan, Ahmet Oğuz Aktürk

Teachers have a crucial role in the success of the changes planned with reforms because teachers are practitioners and administrators of the changes required by reforms (Smith & Southerland, 2007). The support of teaching by using the new assessment approach required by the constructivist view of learning depends on the teachers' understanding, internalization and application of the assessment approach. In other words, there is a need for assessment literate teachers. . It is also difficult to educate teachers without determining their assessment literacies and the basic structures that involving in the development of their assessment literacies. Therefore, assessment literacy is of great importance during the teacher education that teachers receive before they start their career (Siegel & Wissher, 2011; Otera, 2006). The main purpose of this project is to investigate the causal relationships between preservice teachers' assessment literacy and their conceptions of assessment, assessment self-efficacies and assessment course success. A survey model, which is a quantitative research method, is used in the study. In the analysis of the data, the proposed model was tested with the structural equation model. Research data were gathered through 'Assessment Literacy Inventory', 'Measurement and Evaluation Common Competency Perception, 'Teachers' Conceptions of Assessment Questionnaire' and 'Academic Achievement Test for Assessment'. Participants are 100 prospective teachers who are studying in a university located at the middle part of Turkey. The results showed that participants' conceptions of assessment and their course achievements have a direct positive impact on their assessment literacies. On the other hand, participants' conceptions of assessment and their course achievements indirectly impact their self-efficacies. The results of the study showed us if we aim to improve teachers' assessment literacies, we need to focus on more their conceptions of assessment and assessment course achievements.

Keywords: Preservice Teachers'; A Structural Equation Modelling; Assessment Literacies

INVESTIGATION OF BIOLOGICAL PROPERTIES OF NEW 3-ALKYL(ARYL)-4-(3-ACETOXY-4-METHOXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Şule Bahçeci, Murat Beytur, Sevda Manap, Nuri Yildirim, Muzaffer Alkan, Fevzi Aytemiz, Prof. Dr. Haydar Yüksek

The biochemical properties of the triazole ring and triazole derivatives containing this ring, which are important members of the heterocyclic compounds, provide a broad field of study. Especially in recent years, the triazole ring, which is manifested in increased biological activity studies, is a ring with antimicrobial, antioxidant, anti-inflammatory and different pharmacological properties. In the present

study, some novel 3-alkyl(aryl)-4-(3-acetoxy-4-methoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) were synthesized from the reactions of 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with 3-acetoxy-4-methoxybenzaldehyde. The new eight compounds were characterized using by elemental analyses and IR, 1H-NMR, 13C-NMR, UV spectral data. Antibacterial activity of the compounds 2 were evaluated against six bacteria such as Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Bacillus subtilis, Bacillus cereus and Klepsiella pneumoniae. From the screening results, all of the compounds, especially compound 3-methyl-4-(3-acetoxy-4-methoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one was found to be effective against Klepsiella pneumoniae and Escherichia coli strains.

Keywords: 4,5-dihydro-1h-1,2,4-triazol-5-one, Schiff Base, Synthesis, Antimicrobial Activity

INVESTIGATION OF HIGH SCHOOL STUDENTS OPINIONS ABOUT MATHEMATICAL CONNECTION

Kemal Özgen

Mathematical connection is one of the targeted qualifications to be developed in mathematics curriculum. Mathematical connection generally described in three categories. These are connection between mathematics and real world, between other disciplines and within mathematics. For this reason, it is expected that high school students' knowledge, skills and experiences related with mathematical connection will be improved. The aim of this research is to examine the opinions of high school students on the importance of pre-learning, and the multiple representations in mathematics courses and using mathematics in real world and in different disciplines according to their gender and the grades. This research was carried out with a survey model from descriptive research methods. In the research, a questionnaire form was prepared to determine the opinions of high school students regarding mathematical connection. Four multiple-choice and open-ended questions have been prepared to determine the opinions of high school students in relation to mathematical connection. Whether or not there is any difference between students' opinions on mathematical connection according to their gender and their class was examined with a chi-square test. The qualitative data obtained from the opinions stated by the students about the mathematical connection were analyzed by descriptive analysis. As a result of the analysis of the data obtained, it was found that there was a significant difference in the opinions about the importance of the pre-learning in the mathematics courses according to the gender of the high school students. It was determined that there were significant differences in the opinions of the students regarding the use of mathematics in real world and in different disciplines, according to the class they are studying. In addition, the vast majority of high school students reported favorable opinions on the importance of pre-learning and multiple representation in mathematics courses. However, it was determined that negative opinions were more dominant in the opinions towards using mathematics in real world and in different disciplines. According to high school students, while the relationship between mathematics and science is at a high level, they reported that there is little or no relationship between disciplines such as social sciences, arts, language-literature and philosophy. This research was revealed that the perceptions of high school students regarding the connection within mathematics were positive and high but their perceptions of connection mathematics with real world and different disciplines were at a very low level.

Keywords: Connection, High School Students, Mathematics.

INVESTIGATION OF INTERIOR STRUCTURES OF SOME TREE SPECIES SUITABLE FOR INDUSTRIAL USE BY ULTRASONIC METHOD

Ali Erden Babacan, Kenan Gelişli, Burak Genç

Due to the climatic conditions and geographical location of Turkey, many different species of trees are grown in different regions. All the trees in the world are generally exposed to injury, wear and decay due to various reasons such as climatic conditions, vegetation cover, insect species and human factor. It is possible that such negative effects on trees can be removed by tree restoration. The trees that can be used as industrial raw materials are expected to have high durability and to be least affected by environmental factors. The effects such as decay and wear on the trees can be determined by ultrasonic method, one of the non-destructive measurement techniques. In this study, ultrasonic wave velocity measurements were made on samples taken from chestnut, pine, fir and hornbeam trees which are used as industrial raw materials and average velocities of these wood samples were determined. They were left to natural environment conditions to determine how they are affected by factors such as rain, snow, hot-cold change. Afterwards, ultrasonic velocity measurements were made on these tree samples at different time periods and the results obtained were evaluated. According to these results, it was understood that chestnut tree in the tree samples are more resistant to external factors than others.

Keywords: Ultrasonic, Chestnut, Pine, Fir, Hornbeam, Decay.

INVESTIGATION OF POSSIBLE SYNERGETIC EFFECT DURING CO-PYROLYSIS OF MACROALGAE-COAL BLENDS BY TG/DSC-FTIR

Zeynep Yildiz, Selim Ceylan

Due to environmental problems related with fossil fuel consumption derived pollutants, alternative fuels from renewable energy sources is gaining more attention. Biomass is an abundant, clean and renewable energy source which can be used as a fuel source. However, low energy content of biomass hinders its usage as alone. Therefore, it is suggested that utilization of biomass with a fossil fuel at different blend ratios in a co-pyrolysis or co-combustion process to fix this problem. Also, addition biomass to low rank coals, such as lignite, can increase efficiency of the process. Furthermore, it is also reported that a synergetic interaction between fuel components during thermochemical conversion process can increase liquid or char yields depending on the interaction and may yield better quality products. In this study, it is aimed to investigate possible synergetic effect during co-pyrolysis of Ulva lettuca, an abundant macroalge seen in shores and lignite coal which has huge amount of reserves available. The main advantages of macroalgae include rapid growth and no need for land or fresh water. The co-pyrolysis experiments were carried out by a coupled TG/DSC-FTIR system. Thermal behavior of components and blends was investigated at a heating rate of 20°C/min under inert nitrogen environment and decomposition characteristics were studied between temperatures 25°C and 800°C. It was found that there was a synergistic interaction between biomass and coal depending on the difference of weight loss. Gaseous products were analyzed with FTIR and differences between individual and blended sample spectrums were determined. Reaction kinetics was also studied and kinetic parameters were calculated by using first order Coats-Redfern Method. It is concluded this synergetic interaction can be due to high mineral content of marine biomass which acts as catalyst.

Note: This study is supported by TUBITAK with a project number of 214M153.

Keywords: Co-pyrolysis, Marine Biomass, Lignite Coal, Tg/dsc-ftir, Kinetics

INVESTIGATION OF THE PRESERVICE TEACHERS' CHILDHOOD TRAUMAS IN TERMS OF SOME VARIABLES

Kayhan Bozgün, Serpil Pekdoğan

Nowadays, abuse cases are one of the increasing issues, undoubtedly. Having been witnessed the existence of individuals who have experienced abuse in written sources, panellas, news and interviews. When the literature on childhood abuse is examined, it is seen that the works carried out with the children, the teachers, the families and the health workers. For this reason, in this study, it was necessary to work with the teacher candidates who would contribute to the healthy growth of children. The aim of the study is to examine the experiences of childhood abuse of teacher candidates in terms of different variables. As a research method, a survey method was used from quantitative research designs. The study group of the study is composed of 628 preservice teachers. As a data collection tool, the Personal Information Form prepared by researchers, Short Form of Childhood Trauma Scale adapted by Kaya (2014) was used. The obtained data were analyzed with SPPS program. Independent sample t test, one way variance analysis (ANOVA) techniques were used in the analysis of the data. Significance for the obtained data was accepted at 05 level. According to the findings of the study, it was concluded that the preservice teachers had a meaningful difference between the childhood abuse experiences and the variables of gender, class, family income, number of siblings, birth order, parental education level. It was determined that the preservice teachers did not differ, variables of parents life status, parent-child co-existence, parent-child self-esteem in terms of childhood abuse experiences. Works are in the future can include studies that determine the level of knowledge about childhood abuse experiences with the participation of teacher and preservice teachers.

Keywords: Childhood, Abuse, Preservice Teacher, Variable

INVESTIGATION OF THE PRESERVICE TEACHERS' SOCIAL SKILLS IN TERMS OF SOME VARIABLES

Kayhan Bozgün, Serpil Pekdoğan

Social skills play a significant role in healthy communication with others and acceptance by others (Yüksel, 2001). Children with high social skills can establish healthy relationships with their peers and also prove that they are a social individual to their school teachers and friends and their families. It is aimed to examine the social skill levels of the preservice taeachers in terms of some variables in this study which is needed by determining the social skill levels of the teacher candidates and determining which variables they are affected social skills of teacher candidates are responsible for all the development areas of the child. The research was carried out with survey design from quantitative research methods. The study group of the study is composed of 628 preservice teachers. Personal data form prepared by researchers and Social Skill Inventory-Short Form adapted by Koydemir (2006) were used as data collection tool. The obtained data were analyzed with SPPS program. Independent sample t test, one way variance analysis (ANOVA) techniques were used in the analysis of the data. Significance for the obtained data was accepted at 05 level. According to the findings of the study, it was concluded that the preservice teachers had a meaningful difference between the the social skill levels and variables of gender, department, class, family income, parents-to-parent. There are not significant difference between the number of siblings, the order of birth, parental life status, parents' self-esteem, parental education level and the social skill levels of preservice teachers. In similar studies to be done, it may be advisable to researchers to determine the level of knowledge about social skills of teachers and preservice teachers.

Keywords: Social Skill, Preservice Teacher, Variable, Level.

INVESTIGATION OF THEORETICAL AND EXPERIMENTICAL SPECTROSCOPIC PROPERTIES OF 3-PHENYL-4-[3-(4-NITROBENZOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

Haydar Yüksek, Özlem Gürsoy Kol, Fevzi Aytemiz, Murat Beytur, Özlem Aktaş Yokuş

In this study, 3-phenyl-4-[3-(4-nitrobenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one has been compared theoretically and experimentally values (Gürsoy Kol & Yüksek, 2010). For this purpose, firstly the molecule has been optimized using B3LYP/6-311G(d,p) and HF/6-311G(d,p) basis set (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). Starting from this optimized structure with 1H-NMR and 13C-NMR chemical shift values according to GIAO method was calculated using the method of Gaussian G09W program package in gas phase (Wolinski, 1990). Theoretically and experimentally values were plotted according to exp=a+b. δ calc Eq. a and b constants regression coefficients with a standard error values were found using the SigmaPlot program. According to obtained conclusions, theoretical and experimental values were seen to be compatible. Also, Theoretically calculated IR datas of synthesized titled compound was calculated in gas phases by using of 6-311G(d,p) basic sets of B3LYP and HF methods and are multiplied with appropriate adjustment factors and the data obtained according to B3LYP and HF methods are formed using theoretical infrared spectrum. The identification of calculated IR data was used in Veda4f program (Jamroz, 2004). Experimentally and theoretically UV-vis values in ethanol were calculated. Additionally, the molecule was found bond angles, bond lengths, dipole moments, the HOMO-LUMO energy, mulliken charges, total energy of the molecule, ionization potential, electron affinity, molecular softness, molecular hardness and electronegativity with from both methods. 3-Phenyl-4-[3-(4-nitrobenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one was synthesized by the reaction of 3-phenyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-one with 3-(4-nitrobenzoxy)-benzaldehyde, which was synthesized by the reaction of 3-hydroxybenzaldehyde with 4-nitrobenzoyl chloride by using triethylamine (Gürsoy Kol & Yüksek, 2010).

Keywords: B3lyp, Giao, Hf, 4,5-dihydro-1h-1,2,4-triazol-5-one, 6-311g(d,p)

INVESTIGATION OF TURBINE VARIABLES USED FOR WAVE, TIDAL AND FLOW ENERGY FROM HYDROKINETIC ENERGY TRANSFORMATION SYSTEMS

Yağmur Kirçiçek, Ahmet Aktaş

Ocean energy from renewable energy sources is an alternative energy source to other energy sources. Events such as wave, tidal, and flow that are present in the ocean can be converted to electricity by hydrokinetic energy conversion systems. Although hydrokinetic conversion systems are often in the early stages of development, it seems appropriate to use energy from such renewable sources. Two types of turbines, horizontal and vertical, are used in these conversion systems. In horizontal axis turbines, the rotation axis is parallel to the current and the wings are perpendicular. In the vertical axis turbine types, the rotation axis is perpendicular to the flow direction and the wings are parallel. The kinetics and efficiencies of these turbine types differ from each other. In this study, detailed classifications of horizontal and vertical axis turbines and comparisons related to classification are given. This article summarizes current and future transformation schemes and their application areas, starting from a set of basic definitions related to this technology.

Keywords: Hydrokinetic Energy, Wave Energy, Tidal Energy, Flow Energy.

INVESTIGATION THE SITUATION OF EXPOSURE OF CARGO SECTOR EMPLOYEES TO MOBBING

Ümit Yilmaz, Bülent Duman

Turkey has important advantages such as geopolitical position, young population and potential of economic growth. In addition to these advantages, the interest in the cargo sector has increased day by day as it hasn't a long history. The development of electronic commerce along with the increase in internet usage is one of the important factors affecting the development of the cargo sector. Developments in the Turkish cargo sector have brought along the need for qualified personnel specialized in this area. The importance of human resources in the cargo sector, where competition is intense and customer satisfaction is essential, is great. Due to long working hours and heavy working conditions, personnel turnover rate is quite high in the cargo sector. In order to reduce personnel turnover rate, it is necessary to improve the specified conditions and correct the subordinate - superior relations. In this study, a survey study was conducted with cargo personnel working in Balıkesir province in order to investigate the situation of exposure of cargo sector employees to mobbing.

Keywords: Mobbing, Cargo Sector

INVESTIGATION THE USE OF DISCOURSE ANALYSIS IN THESIS WORKS IN TURKEY

Numan Bademli, Seyit Ahmet Kiray

Historically, from the first day of the concept of discourse analysis back to the1960s, it has attracted the attention of researchers over time,and is analysis work that has increased in frequency in recent years. The discourse that arises from the language which is the basic communication means of human beings, contain the data about both producers and producers want to do with something. In addition discourse can give us a clue about how speaker has an understanding about a concept to be learned. When assessed in this context, it is important take into consideration to discourse while making real the activities such as education, teaching, learning and teaching. Therefore, in a research, discourse analysis becomes a necessary analysis method as much as other methods regardless of the field of the researchs. In this study, the use of discourse analysis in PhD and master thesis between 1990 and 2017 at the National Scanning Center is examined. The content analysis is used as analysis method. As a result of the study, it has been observed that the frequency of use of discourse analysis differ from research areas. With this study, it is aimed to create a portrait about the usage of the discourse analysis in Turkey which has a wide area and application variety.

Keywords: Discourse, Discourse Analysis, Document Analysis

INVESTIGATIONS OF BURNOUT AND KPSS ANXIETY LEVELS OF BIOLOGY STUDENT TEACHERS

Esra Özay Köse, Şeyda Gül, Emine Hatun Diken

Today, students are exposed to many stimuli stemming from the internal and external environment, and they are affected positively or negatively. While positive stimuli generally make people happy, negative stimuli cause that students are exposed to anxiety and burnout. The test anxiety that directly affects

success is affected by the stressful situations experienced in the academic process and may increase the risk of burnout. The main purpose of this research is to determine the levels of burnout and KPSS anxiety in biology teacher candidates and to show how they relate to each other. The sample of this research consists of 100 (66 female, 34 male) biology teacher candidates attended to Erzurum Biology Education Department of Kazim Karabekir Education Faculty at Atatürk University in 2015/2016 academic year. Two instruments were used to collect data the "Maslach Burnout Inventory" and "KPSS Anxiety Scale" developed by Karachan (2009). As a result of the KPSS anxiety scale, it was founded that teacher candidates' worry levels were at low level as 2.83. As a result of the burnout scale, it was founded that the burnout averages of the teacher candidates were at low level as 3.82. Looking at the relationship between them, it is observed that there was a positive relationship and that while burnout level increases, KPSS worries also increased.

Keywords: Burnout, Kpss Anxiety, Biology Student Teachers

IRIS IDENTIFICATION SYSTEM WITH IMAGE ANALYSIS

Volkan Altuntaş

Identity security plays a vital role in today's conditions, such as fraud and terrorism. Biometrics has emerged with higher security requirements than traditional authentication methods. Biometrics is the science of recognizing an individual's identity based on the physiological and behavioral characteristics of the individual. There are many biometric features such as fingerprint, hand geometry, walking, face, sound and iris. From these characteristics, iris is more accurate and reliable due to the stability of the tissue order. Image classification by image processing and machine learning plays an important role in the solution of many problems. In order to extract some useful information from the image, image processing is a method to convert image to digital form and perform some operations on. Artificial learning systems have emerged as the needs such as automatic recognition and automatic decision-making process of objects and signals on the basis of certain parameters calculated by computer systems. In this study, image processing and artificial learning-based classification system is developed and used for iris identification. It was concluded that proposed system can be used solving the problem effectively.

Keywords: Security, Biometrics, Image Processing, Machine Learning

IS EXPORT LED GROWTH HYPOTHESIS VALID FOR JAPAN?

Harun Bal, Emrah Eray Akça, Abdullahil Mamun, Murat Bayraktar

This paper investigates the validity of export led hypothesis in Japan for the period 1982-2015. It estimates the error correction model (ECM) employing Bound Testing mechanism in order to find the short run causality and long run association of among variables under investigation. Results of the paper suggests that there exists short run causality between export and GDP growth and export influence output growth inversely in the long run. However, the paper fails to find any causal relationship between import and GDP growth despite the fact that import has a positive impact on output growth in the long run. The study also finds the system stable in the long run as it has tendency to correct its short run disequilibrium in the long run for Japan.

Keywords: Exports, Imports, Bound Test, Japan

ISSUES WITH CAREER AND TECHNICAL EDUCATION AND DIPLOMA OPTIONS IN THE UNITED STATES

Christi Fain, Aaron Talley, Cynthia Head

Throughout the Unites States, diploma options and graduation options vary from state to state. The most common diploma option nationwide is the College Preparatory diploma. In an examination of diploma options and graduation requirements across the nation in 2007, Johnson, Thurlown, and Schuelka reported that all states offered a standard diploma to both students with and without disabilities, eleven states offered a Special Education diploma and three states offered an Occupational diploma to students with disabilities only. Prior to 2008, the state of Georgia was one of many states offering several standard diploma options, called tiered diplomas. However, at the end of 2007, the State cited the need for all students to follow a rigorous academic path throughout high school, regardless of their post high school intentions. In 2007, the Georgia Board of Education joined 29 other states in the American Diploma Project Network (ADP) under the umbrella of Achieve, Incorporated. Achieve, Inc. is an education reform organization leading a national charge in a paradigm shift focusing on college and career readiness by funneling all students through the same rigorous academic coursework, regardless of post high school graduation plans. Georgia joined this coalition with the hopes that raising standards would generate graduates more capable of achieving long-term success in college and in the workforce. It is the belief of both Achieve, Inc. and the State of Georgia that students will 'achieve what is expected of them' and that a single diploma option is the vehicle through which this success will be attained (Georgia Department of Education, 2010, p. 7). The purpose of this paper is to discuss the disparity between federal legislation of Career and Technical education (CTE) and actual practice as well as to examine the effects of the removal of the tiered diploma options for students in Georgia. A mixed methods design was used to collect and present data. Descriptive statistics were used to report student graduation rates for students with and without disabilities under the different graduation rules. A survey given to Georgia educators regarding the effects of streamlining diploma options was analyzed and coded using ATLASti. Results and implications from this study are presented.

Keywords: Diploma, Vocational Education, Graduation

KINETIC STUDY OF SERINE ALKALINE PROTEASE FROM BACILLUS SUBTILIS 1023 (PTTC)

Onur Atakişi, Canan Gülmez, Çağatay Özbey

Proteases, hydrolytic enzymes that cleave peptide bonds between amino acid residues and particularly alkaline proteases like subtilisin, are the most commercialized and used enzymes in the world. Proteases have major applications in industry such as laundry detergents, food, leather, silk, pharmaceutical, and degradation of gelatin on X-ray films. The kinetic study of the purified enzyme provides information on enzyme activation and inactivation rates, and this is vital for its use in industrial applications. In this study, it was aimed to investigate the kinetics of subtilisin from Bacillus subtilis 1023 (PTTC). The subtilisin gene from Bacillus subtilis 1023 (PTTC) was directly synthesized and cloned in expression vector pD441-NH using SapI restriction sites by DNA 2.0. E.coli BL21 (DE3) was used as a transformation and expession host. Recombinant subtilisin was purified in a single-step procedure by affinity chromatography using Ni-NTA agarose resin. Kinetic study of purified recombinant enzyme was performed using casein subsrates at different concentrations ranging from 0.1 to 20.0 mg/ml under optimum conditions. Each assay was carried out in triplacate and kinetic parameters were calculated by Lineweaver-Burk plots. The values of Michaelis-Menten constant (Km), maximal reaction (Vmax), turnover number (kcat) and catalytic efficiency (kcat/Km) was calculated. Also, proteolytic activity at different enzyme concentrations was detected.

The Km, Vmax, kcat and kcat/Km values of the subtilisin from B.subtilis were 0.496 mg/ml, 2.0 U/mg, 4.5x102 min-1 and 9x103 min-1 mg-1.ml, respectively. High activity was observed even at very low enzyme concentration (0.015 mg/ml). The findings showed that B.subtilis protease can be suitable for various significant bioformulations and industrial applications.

Keywords: Protease, Bacillus Subtilis, Km, Vmax

KRECHET-GÖDEL UNIVERSE IN F(R,T) GRAVITY

Değer Sofuoğlu

In this study, in the context of f(R,T) gravity theory, we have considered Krechet-Gödel space-time which is generalization of the stationary Gödel model to the non-stationary case. Using the field equations of f(R,T) gravity, for a perfect fluid source, we have investigated whether the Krechet-Gödel model exist or not in this modified gravitation theory. We have also discussed about the existence of stationary Gödel model and its matter content in f(R,T) theory.

Keywords: Gravitation, Modified Theory, F(r,t), Rotation, Krechet-gödel Universe

LANGUAGE EDUCATIONAL PROGRAMS OF TURKEY AND SINGAPORE WITHIN THE CONTEXT OF READING-WRITING ACHIEVEMENTS

Esra Ay Karaçuha, Ahmet Çebi

When examining the results of PISA of 2015 published by the OECD late in 2016, the average point of 72 participant countries in reading performance is seen to be 493. Out of 72 participant countries, Turkey ranked 50th in reading skills with 428 points, 65 points below the average point 493, and Singapore ranked 1st in reading skills with 535 points, 42 points above the average point 493. Between Turkey on the 50th rank in reading skills out of 72 countries and Singapore on the 1st rank, there is a 107-point difference, a very big difference not possible to overlook. Undoubtedly, there are many factors for emergence of this situation. One of the primary ones, which are frequently repeated by the mass media in many places, is selecting, training the preservice teachers of these two countries and the positions of their teachers. A factor, which is not emphasized much, more precisely, is not emphasized at all, the properties which language educational programs of both countries have within the context of reading-writing achievements. It can be understood by considering the results of PISA of 2012 that this factor not emphasized at all is as important as the factor widely emphasized. When examining the results of PISA of 2012, it is seen that the average point of 65 participant countries is 496 in reading performance. Out of 65 participant countries, Turkey ranked 42nd in reading performance with 475 points and Singapore ranked 3rd in reading skills with 542 points. There is a 67-point difference between Turkey on the 42nd rank and Singapore on the 3rd rank in reading skills. When it comes to 2015 from 2012; while Singapore held more or less its rank in reading skills, a very big decrease occurred in reading skills of Turkey. One primary reason for this is that the language educational program, which was put into practice in Turkey in 2005, requires an early reading-writing method called “Sound Based Sentence Method” within the context of synthesis approach. In the present study here, the language educational programs of both countries shall be compared within the context of reading-writing achievements and it shall be tried to interpret the PISA results in this regard.

Keywords: Reading Achievements, Writing Achievements, Pisa Of 2012 Reading Performance, Pisa Of 2015 Reading Performance, Language Educational Programs

LANGUAGE FESTIVAL AND HOLIDAY CELEBRATIONS IN COMMUNITY CENTERS

Mehmet Korkud Aydin

Social, political, economic progresses, and efforts to set a new order in Turkey after the declaration of the Republic have also been effective in the field of culture. Ataturk gave priority to studies related to Turkish Language and Turkish History during the transformations that constituted the Cultural Revolution. As a result of these studies, the Society for the Study of Turkish Language was established on 12 July 1932. Ataturk declared the purpose of establishing the Society for the Study of Turkish Language as "to discover the make inner beauty and treasure of the Turkish language and to elevate it to a place among world languages worthy of its value". With the establishment of the Society for the Study of Turkish Language, the assemblies of Turkish Language Councils were held. The assemblies have convened three times during the period of Ataturk. With the convening of the Second Turkish Language Council, it was decided to celebrate the "Language Festival" every year on September 26 in order to ensure that the importance of Turkish is grasped throughout the country and that the citizens claim their own language. Language Festival celebrations have been held every year throughout the country with enthusiasm. The Community Centers have also participated these activities. The Community Centers carried out these activities through Language and Literature Divisions, which have engaged in screening and compilation activities in order to reveal the richness of Turkish language, within their organization structure. In this paper, which studies the activities of the Community Centers pertaining to the celebration of Language Festivals, we will consider the meetings, ceremonies and publications on the subject conducted through their Language and Literature Divisions. In addition, public's approach to the Language Festival, their participation in the festival ceremonies, and the social acceptance of the Language Festival will be addressed. The information contained in the declaration were obtained by scanning the published books, journals, and articles as well as from the documents of the Community Centers, which were included in Republican People's Party catalogues in the archives of the General Directorate of State Archives of the Prime Ministry of the Republic of Turkey.

Keywords: Turkish Language Association, Cultural Revolution, Language Festival

LEARNING PHYSICS AND MATHEMATICS DURING ROBOTICS ACTIVITIES

Fatima Kaloti-hallak, Mordechai (moti) Ben-ari, Michal Armoni

This research investigates students' learning of physics and mathematics during their participation in robotics activities. The population consisted of middle-school students (ages 13-15 years) who participated in the FIRST® LEGO® League competition. The methodology used was qualitative including observations and interviews during the school year 2012-2013, and mainly group interviews during the school year 2013-2014. A representational model was used during the interviews to facilitate externalizing the students' understanding of concepts. The analysis used the revised Bloom Taxonomy to study the students' meaningful learning of physics and mathematics concepts during the robotics activities. The results showed that most of the students demonstrated learning at the understanding / applying level for the mathematics concepts. A few students demonstrated higher levels like the analyzing or evaluating and a few demonstrated only the remembering level. As for the physics concepts, a few of the students achieved a high level of learning like the analyzing or evaluating, some achieved the understanding / applying level, but most of them demonstrated the remembering level or even less. Several factors that influenced the students' learning are discussed.

Keywords: Robotics, Physics, Mathematics, Middle-school, Meaningful Learning, Bloom Taxonomy

LIBERATION, PATRIARCHAL PRACTICES AND WOMEN'S USE OF VIOLENCE IN THE DOMESTIC SETTING IN SAUDI ARABIA

Fowzah Khadhar

An increase in female-perpetrated domestic violence in Saudi Arabia has accompanied a range of emancipatory changes for Saudi women (Alsweel, 2014).The liberated status of Saudi women is reflected in their increased access to education and employment. Access to education and employment has increased Saudi women's awareness of their rights, but the realisation of these rights is challenged by the patriarchal practices such as polygamy and guardianship. This paper pursues the hypothesis that liberated women's use of violence against men in the family is triggered by the patriarchal practices in Saudi Arabia.

Keywords: Patriarchal Practices

LOW-COST REAL-TIME ELECTROMYOGRAPHY (EMG) DATA ACQUISITION EXPERIMENTAL SETUP FOR BIOMEDICAL TECHNOLOGIES EDUCATION

Naciye Mulayim, Samet Çiklaçandir, Fatih Cemal Can, Savaş Şahin

Electromyography (EMG) is a technique used in electro-diagnostic therapy by recording and evaluating the skeletal muscle electrical activity. When muscle cells are activated, electric potential, which is produced by these cells, is detected via an electromyography. These signals can be use analyzing of medical activation levels, anomalies and detection of recruitment order. At the same time they can used to make analyses of biomechanics motions of human or animals. In this study, it was developed a real time EMG data acquisition system based on threshold level. Firstly, it was generated an EMG sensor and it was obtained EMG signals by communication between Arduino and LabVIEW interface by using muscle electrodes. It was purposed to use for developing of a low-cost real-time applications in laboratory for biomedical technologies education.

Keywords: Real-time Electromyography (emg), Experimental Setup, Labview, Biomedical Technologies Education.

MALATYA COMMUNITY CENTERS AND THEIR CONTRIBUTIONS TO LITERACY CAMPAIGN (1932-1951)

Mehmet Korkud Aydin

One of the most important revisions carried out in the field of education in the Republican era was the adoption of the New Turkish Alphabet, which was based on the Latin alphabet, on 1 November 1928.
After the adoption of the New Turkish Alphabet, the schools named the Community Schools were founded on 24 November 1928, in order to teach the new alphabet and to increase literacy. The Community Schools, in which Atatürk assumed the role of the president and head teacher, started education and training on 1 January 1929. The training campaign launched against illiteracy proved to be a remarkable success in a short period of time and there was a visible increase in literacy rate across the country.
The Community Centers, which were established on 19 February 1932, as cultural centers were not indifferent to the literacy campaign and actively involved in it by introducing literacy courses throughout the country. One of the most important activity divisions of the Community Centers, which concentrated their work in nine areas, was the Public Classes and Courses Division. According to the Programs and Operating Guidelines of Community Centers, the interests of the Public Classes and Courses Division may be summarized in six sections:
1) Courses to read and write in Turkish,
2) Practical courses in natural sciences such as physics, chemistry, and mathematics,

3) Practical courses related to life, occupations, and crafts,
4) Courses of fine arts,
5) Foreign language courses,
6) Training courses for students who need additional assistance.

Public Classes and Courses Division has fought illiteracy and paid special attention to the courses to read and write in Turkish among the six areas mentioned above. In 1940 only, 22,551 unschooled adults had attended the 472 courses organized in 172 Community Centers. Community Centers, which had brought the literacy courses to remote villages, converted the coffeehouses to makeshift evening classes, and even reached to the prison inmates, have contributed substantially to the cultural life of the Turkish public.

Malatya Community Centers have also worked actively within the framework of Public Classes and Courses Division in towns of Malatya province. Thousands of citizens, regardless of their membership to Community Center, have learned to read and write in literacy courses taught by primary and secondary school teachers. These courses were carried out through Community Chambers in villages and remote areas. Additionally, hundreds of prison inmates were taught in Malatya Penitentiary.

Keywords: Community Center, Public Classes, Illiteracy, Literacy,

MALATYA COMMUNITY CENTERS AND THEIR SPORTS ACTIVITIES (1932-1951)

Mesut Aydin

After the proclamation of the Republic, many reforms were made in the political, social, social, cultural and economic fields; but faced with the problem that the reforms made could not be explained to the public after the closure of the Turkish Hearths. There was a need for a new public education and cultural institution organized throughout the country in order to facilitate the absorption of the values of the Republic, the adoption of reforms by the masses, and the social and cultural development of the people.

The Community Centers were established on 19 February 1932 and organized throughout the country in a short period of time. In every Community Center, divisions were established with titles Language and Literature, Fine Arts, Theater, Sports, Social Aid, Public Classes and Courses, Library and Publishing, Peasentism, History and Museology, and areas of activity were defined. The Community Center Sports Divisions were responsible for raising the love and interest of the Turkish people in sports and physical activities. At that time, they had assisted the development and progress of all sports organizations, regardless of whether they were affiliated with the Association of the Training Leagues of Turkey or not. They had encouraged the establishment of a sports club where there is not one, the entrance of young people into sports clubs, and the development of youngsters as real sportsmen. They had organized local gymnastics days for the citizens, major gymnastics festivals every three or four years, and hiking and sports tours. Malatya Community Center, one of these established in 1932 in the province of Malatya, has expanded its activities and interests in various fields. It had served the public with nine divisions as the other Community Centers. One of these divisions was the Sports Division. Malatya Community Center, as stated in the Operating Guidelines of Community Centers, has contributed to the development of primarily wrestling and other sports activities such as soccer (football), gymnastics, boxing, fencing, judo, basketball, volleyball, and hunting. The sports equipment necessary for different sports were provided by CHP (Republican People's Party) General Secretariat via the Community Center and brought to Malatya.

Malatya Community Center founded Fıratspor, a soccer club, and has organized football matches against teams from such provinces as Elazığ, Gaziantep, Kayseri, Sivas, Diyarbakır, Adana, Konya, Samsun, Sinop and Mersin. Likewise, wrestling competitions were organized in the national festival celebrations with attention to display examples from various sports

Keywords: Community Center, Sport, Firatspor

MALATYA IN THE 15TH YEAR OF THE REPUBLIC (1923-1938)

Mehmet Korkud Aydin

In early republican period, the celebrations of the 10th and 15th Anniversary of the Republic and the cultural activities in these fields are important. One of these activities is the publication activities.
One of the publication activities in this period was the Almanac for Cities, which was prepared in many cities in those times. The study "Malatya in the 15th Year of the Republic" was one of the publication activities that was released in the memory of the 15th Anniversary of the Republic of Turkey. The institutional structure of Malatya was revealed with the data collected from different sources in this study, which aims to highlight the publication activities in the Early Republican period in Turkey. In the study "Malatya in the 15th Year of the Republic", the issues like the administrative, political and cultural situation of the counties of Malatya; the activities of the Community Centers, mainly the CHP; the Himâye-i Etfal Association, Tayyare Association; construction activities, economic enterprises, municipality activities; education and schooling; health status, and common diseases etc. were examined. The Literature Review Method was used in the study as the research model. The R.T. Prime Minister's Office Republican Archives, documented works, memoirs, and the findings that were obtained as a result of the review of the national and international press were evaluated in the study.

Keywords: Republic, Malatya, Adiyaman, 15th Year, Apricot

MANORIAL SYSTEM GRANTS IN CYPRUS ACCORDING TO THE CADASTRAL RECORD BOOK NO 696 DATED 1603

Recep Dündar

With the conquest of Cyprus, the Cyprus State consisting of Girne, Baf and Magosa Districts was formed with Lefkoşa as the central district. The cadastral records of Cyprus State were started as of October 9, 1571; and were completed on October 18, 1972. The territory of Cyprus State was included in the Imperial High-class and was not included in the manorial system at first. However, after 1577, the former policy was left, and the territory was included in the manorial system. With the decree sent to the Provincial Treasurer and to the Governor of Cyprus with the date October 10, 1577, the volunteers, guards, azeps, and armorers and artillery from the household troops of the Sultan, except for Janissaries, were granted manorial territory to ease the budget of the Cyprus State. As of 1578, the Janissaries in Cyprus were also included in the same application. The first data on the holders of manorial system grants in Cyprus date back to 1603. As a matter of fact, the Cadastral Book with the number 696 in the Ottoman Archives in the Prime Minister's Office include the data on the manorial system grants in Cyprus State. According to the Manorial Grants Book, the State of Cyprus was separated into 14 commandery regions as Baf (3), Evdim (2), Lefke (2), Limoson (4), Mazuto (1), Mesarye (1) and Pendaye (1). These grants were made because two of the commandery owners had died, one of them was promoted with the enthronement, and the other one waived. In addition, there are 137 manorial system grant records which were distributed as follows; Lefkoşa (17), Girne (3), Baf (23), Evdim (7), Mazuto (18), Lefke (7), Mesarye (8), Limoson (15), Hırsofu (9), Piskobi (2), Pendaye (11), Tuzla (2), Omorfo (6), Karpas (4) and Gilan (5). The total value of these was 1 012 188 cash money, and the amount per capital was 7 388.

Keywords: Cyprus, Manorial System, Commandery, Lefkoşa, Baf

METACOGNITIVE AWARENESS IN SECOND LANGUAGE LISTENING AND THE ROLE OF STRATEGY TRAINING

Sezen Balaban, Zeynep Çamlibel-acar

Listening is an essential skill and plays a crucial role in learning and using a second/foreign language. It is stated by various researchers that learners become successful and efficient listeners by means of employing strategies during listening (Gilakjani & Ahmadi, 2011). This study included the aim to provide learners with training in two different types of listening strategies, namely note-taking and shadowing. While there is abundant information on L2 learners' metacognitive awareness in listening, there is the need to analyze metacognition in relation to different listening strategies. For this purpose, the present study intends to investigate the influence of note-taking and shadowing as two listening strategies on learners' awareness of their own second language listening process. The specific research question asked was: Is there a significant difference in metacognitive listening awareness levels of students who receive shadowing training and who receive note-taking training? In order to gather data, the Meta-cognitive Awareness Listening Questionnaire (MALQ) was implemented on 82 English as a Foreign Language (EFL) learners who were pre-intermediate level students at the language preparatory classes of a state university in Turkey. Half of the participants had shadowing instruction and practice, whereas the other half had note-taking instruction and practice in their listening lessons for six weeks. All of the participants answered the questionnaire both before and after the treatment period. In order to analyze the data, means were calculated and statistical tests were run. To compare the listening meta-cognitive awareness levels of students in the two groups, the Mann Whitney U-test was employed. Results show a statistically significant difference between the two groups in the planning-evaluation component of the scale. During the presentation, learner responses to each question in MALQ will be presented, and comparisons between the two treatment groups will be shared with the audience.

Keywords: Efl Listening, Listening Strategies, Malq, Shadowing, Note-taking

METAPHORICAL PERCEPTIONS OF TRANSLATION AND INTERPRETATION DEPARTMENT STUDENTS AT KAFKAS UNIVERSITY IN TURKEY ABOUT THEMSELVES

Gencer Elkiliç, Kadir Bayrakci

Metaphors are considered to be very important in the social settings of people as well as in the educational domain. Their importance stems from the fact that using them one can depict abstract ideas with concrete things, thus making more comprehensible. The aim of this study, therefore, was to determine the type of metaphors created by the students in the department of Translation and Interpretation at Kafkas University in Turkey about themselves and to make conceptual categorization accordingly. In order to collect data, both qualitative and quantitative data collection techniques were utilized, by requesting the translation and interpretation students to fill in the forms containing prompts "Translation and Interpretation students at Kafkas University are like....., because they....." As a result of the data collected from 70 students, 64 valid metaphors were determined and these metaphors were categorized under 8 conceptual headings.

Keywords: Translation And Interpretation, Conceptual Categorization, Metaphor, Kafkas University.

METHOD DIAGNOSTIC FOR DIFFERENTIAL PATHOLOGICAL PROCESSES OF RECTAL TISSUES

Volodymyr Sulyma

The different numbers of microelements in normal and pathological–neoplastic cells for their radiation with giving of negative structures and photo-electrical effect - individual for normal of rectal tissue and pathological process (chronic anal fissure, non-malignant and malignant tumors). The γ-quantum is absorbed at the expense of the characteristic irradiation of microelements in normal and pathological tissues – new speed of method for differential diagnostic of pathological processes: chronic anal fissure and rectal tumors. The studies of biopsy material after operative intervention for rectal diseases (chronic anal fissure, polyps and adenocarcinoma), through registration of coefficients of absorbed at the expense of the characteristic irradiation of microelements on entrance intensive γ-quantum 10 kHz, tissue for energy 59,6 keV – 5 mm, for energy 17 keV – 5 mm, for energy 5,9 keV – 1 mm, time of registration 60 sec. The different of absorbed at expense low level energy γ-irradiation of cells rectal tissues had universal of characteristic and basis for early of differential diagnostic of pathological processes.
Key words. Differential diagnostic, pathological processes of tissues, γ-quantum.

Keywords: Diagnostic, Pathological Processes, Г-quantum

MICROBIOLOGICAL EVALUATION OF RAW MILK IN MARMARA AND EGE REGION

Seda Altuntaş

Milk in a healthy nipple cavity (cisterna) does not contain pathogenic or deteriorating microorganisms. However, raw milk is contaminating with different microorganisms due to the channel, the milking environment, the equipment and processes used. The low initial microbial load to be used in the production of dairy products is very important in terms of end product quality. For this reason, raw milk quality criteria have been determined in the legislation of the countries. Number of somatic cell, total aerobic mesophilic count, number of Staphylococcus aureus and Salmonella spp. presence/absence is assessed as raw milk quality criteria in Turkish Food Codex Raw Milk and Heat Treated Drinking Milk Communiqué (2009/14). In this study, the number of somatic cell and total aerobic mesophilic counts of raw milk samples collected from 263 farm and milk collection centers in Marmara and Ege Region for seven months were determined and evaluated in terms of legal compliance. It has been determined that the number of somatic cells is 540.000 units / ml and the total number of aerobic mesophilic organisms is 7,000,000 cob / ml on the average. In general, it has been determined that the number of somatic cells is in compliance with the legal regulation, but the total number of aerobic mesophilic lives is well above the determined limit. This indicates that adequate hygienic conditions are not provided in farm and milk collection centers.

Keywords: Raw Milk, Somatic Cell, Total Aerobic Mesophilic Count, Legal Regulation

MODEL OF SUPPLEMENTARY PEDAGOGICAL EDUCATION OF SECONDARY SCHOOL TEACHERS AT THE SLOVAK UNIVERSITY OF TECHNOLOGY

Lubica Vaskova, Dagmar Ruskova

Paper analyzes the model of training of technical subjects' secondary school teachers, graduates from technical universities, from the viewpoint of content focus and proportionality of individual subjects in the supplementary pedagogical study.The Slovak University of Technology by providing supplementary pedagogical study satisfies the requirements of secondary schools to obtain highly qualified specialists - teachers of specialist technical subjects. Candidates for supplementary pedagogical study have a deep knowledge of the main disciplines content of their branch. Candidates are therefore full-valued graduates of technical universities (having the title Master of Science), who have completed the second degree of university technical education. They are graduates s of the following faculties: Faculty of Civil Engineering, Faculty of Mechanical Engineering, Faculty of Electrical Engineering and Information Technology, Faculty of Chemical and Food Engineering, Faculty of Architecture, Faculty of Materials Science and Technology, Faculty of Informatics and Information Technologies. In the accredited model of supplementary pedagogical education are dominant those studying subjects which are not part of the study programs of graduates of technical universities and which are necessary for pedagogical-psychological and didactic erudition of teachers in teaching practice. Graduate acquires the adequate teaching competencies - the ability to design, implement, manage and organize the work in class and to create a positive climate, to diagnose students' abilities. Graduate gains the possibility to self-reflection, can participate in the elaboration of educational materials for teaching practise, is familiar with educational technology and ICT for didactic purposes and has appropriate knowledge and competence of the methods of research and development in the didactics of the relevant field. Graduate of supplementary pedagogical education is competently prepared and qualified to perform the teaching profession of technical subjects at secondary schools-ISCED 3 and 4

Keywords: Suplementary Pedagogical Education,pedagogy, Psychology, Didactic

MUĞLALI MUSTAFA PASHA AND IMPORTANT PARTS OF HIS LIFE

Mesut Aydin

Muğlalı Mustafa Pasha, who has lived a tough life, was born in 1882 in Muğla province. He was the son of Ömer Bey from the Isfendiyaroğulları, entered the Military School on March 13, 1898 and continued to the Military Academy after successfully completing the school on January 2, 1901. He graduated as Distinguished Captain on 4 January 1904, and promoted to lieutenant colonel on September 14, 1915. Meanwhile, he served at the Infantry Division of the Office of the Staff of the Ministry of War on January 8, 1914; as the 44th Division Commander on the 3rd of May 1918; and as a member of the Military Appeal on 11 November 1919. During the National Campaign period, in addition to his official duties, he has been involved with secret societies in Istanbul and has fulfilled important duties. This is perhaps the most important part in Muğlalı Mustafa Pasha's life story and the period where his life was at risk. Because, as well as his official duties in the Ottoman General Staff as a staff colonel in this period, he was the head of the Üsküdar Branch of the Karakol Society, which was established shortly after the Mondros Armistice, signed on October 30, 1918. As the head of the Zabitân Group, the second organization of the Karakol Society, he helped to smuggle tons of weapons, ammunition and ammunition to Anatolia. Muğlalı Mustafa Pasha, who was the division commander of the 18th, 13th, 10th, 3rd, 11th, and 41st divisions with the rank of colonel after winning great victory in 1922 until 1926; shone with the "Discipline Operations" directed to the Koçuşağı Tribe in 1926. The operation started on September 6, 1926, and continued until October 30, 1926; the rebels were neutralized in the caves where they hid. The next mission of Muğlalı Mustafa Pasha was the Eastern Anatolia follow-up operation, which he undertook in June 1927. It was necessary to neutralize the remains of the rebels who continued their activities in the region after Sheikh Sait Rebellion. His mission ended on 3 November 1927 with the Bicar Banishment Operation. Muğlalı Mustafa Pasha had been promoted to major general after his successes in these operations.

He was appointed as the Chief of Staff of the 3rd Army from 1927 to 1928, as the 2nd Deputy Chief of General Staff between 1928 and 1929, and as the Commander of the 57th Division between 1929 and 1931. Muğlalı Mustafa Pasha was appointed as the chairman of Court Marshall, which was founded to judge the murderers of sub-lieutenant Kubilay and two guards after "Menemen Incident" on 23 December 1930. During the proceedings, 2,200 people were arrested, 606 people were judged. The 31 people, including Nakshi Sheikh Esat Efendi, were sentenced to death; 28 of them were executed. The executions were carried out, as the tradition of that period, in various parts of the city such as Salt Bazaar, Station, Government Square, and Cinema Front. In 1931, he was promoted to lieutenant general. He was the commander of the 1st Corps between 1931 and 1939, of the 3rd and 10th Corps Command in Istanbul between 1939 and 1943 the. Muğlalı Mustafa Pasha, who was promoted to Full General on 25 February 1942, was also a member of the Supreme Military Council between 1942-1943. Muğlalı Mustafa Pasha, went to Özalp district of Van province perhaps for the most difficult task of his life to serve as the 3rd Army Commander. After the event called "33 Bullet Incident" in recent Turkish history, he experienced a very difficult time. On December 3, 1948, the Democratic Party's Eskişehir deputy Ismail Cevik submitted a question to the Parliament, questioning what has happened in Van's Özalp district in 1943 and the incident flared up again. Although Muğlalı Mustafa Pasha's name was not mentioned in the parliamentary question, he was at the center of discussions. Muğlalı Mustafa Pasha was left in the midst of the disputes between the DP and the CHP. In addition, an investigation was started on Muğlalı Mustafa Pasha on January 19, 1949, as the Nakshi followers who wanted to take revenge of Erbili Esat Efendi got involved. The other soldiers who were tried on the case along with him were acquitted due to his statement "I gave orders, officers and officers have no guilt". The General Staff Military Court released Mustafa Pasha on 23 November 1949, but the Military Court of Appeals adjudicated this decision on 9 January 1950. According to the final ruling on March 2, 1950, Mustafa Pasha was sentenced to death. However, due to his progressive age, his sentence was changed to 20 years in prison. In the meantime, a "mental disability at an advanced stage" was detected in the examination conducted at the Gülhane Military Hospital; the decision about Muğlalı Mustafa Pasha was again abolished and he was decided to be released on 27 September 1950. Muğlalı Mustafa Pasha died on December 11, 1951, when he was 69 years old, after heavy trauma and discomfort. He was buried in the Edirnekapı Memorial Cemetery.

Keywords: Karakol Association, Muğlali Mustafa Pasha, Menemen Incident, 33 Bullet Incident

NEW INDUSTRIAL REVOLUTION INDUSTRY 4.0

Serhan Kökhan, Uğur Özcan

Today's developing technologies have led to the reshaping of consumers' aims and expectations, which has forced manufacturers and service providers to keep up with this evolution and change in order to be able to compete and survive. With the use of steam power the 1st Industrial Revolution, 2nd Industrial Revolution with the use of electricity by taking the energy source instead of steam and with the information and telecommunication technologies that developed after World War II, 3rd Industrial Revolution were realized. Industrial revolutions have emerged in response to the needs and expectations of the period with specific solution models. This was a concept that emerged from this expectation and need in the 4th Industrial Revolution called Industry 4.0. In this study, the concept of Industry 4.0 and the necessary information and technological infrastructure and application areas are discussed.

Keywords: Industry 4.0, Digital Factories, Samart Manufacturing

NEW TECHNOLOGY ADOPTION BY BUSINESS FACULTY IN TEACHING: ANALYZING FACULTY TECHNOLOGY ADOPTION PATTERNS

Sharif Abukarsh

Despite large investments by Palestinian universities in technology for faculty and student use, instructional technology (IT) is not being integrated into instruction in Palestinian universities including business colleges. While the diffusion of instructional technologies has reached a saturation point among early adopters of technology, it has remained limited among the mainstream faculty. This study explores instructional technology usage patterns and the characteristics of business faculty as well as contributing factors to IT adoption. The focus of the study is to explore the differences between faculty members who have adopted new technology and those reluctant or resistant to IT adoption, and to determine whether business faculty characteristics contribute to the prediction of faculty adopter categories. Faculties from the disciplines of business courses at Palestinian universities were surveyed to gather data concerning faculty characteristics, adoption patterns, perceptions of computer-use self-efficacy, the value of IT, barriers and incentives to adoption and preferences related to support in technology adoption. The data analysis was based on Rogers' theories of diffusion and adopter categories. Significant differences were found between early adopters and the mainstream faculty in terms of individual characteristics, adoption patterns, perceptions of barriers and technology learning preferences The results indicated that computer use self-efficacy and rank significantly contribute to the prediction of faculty adopter group.

Keywords: Technology Adoption, Diffusion Of Innovation, Adopter Categories, Business Faculty Technology Use.

NUMBERS AND OPERATIONS FROM PAST TO PRESENT: A RESEARCH ON MATHEMATICS TEACHING PROGRAMS

Lütfi Incikabi, Samet Korkmaz

The purpose of this study is to discuss the changes in numbers and operations learning domain in middle school mathematics programs. In line with this purpose, the middle school mathematics teaching programs from the proclamation of the republic to present in our country were examined. The study is of descriptive in nature and was carried out by the document analysis method. The sources of the work for collecting the data are the Middle School Mathematics Teaching Programs published in 1926, 1931, 1938, 1949, 1977, 1990, 1998, 2005 and 2013 for the 6th, 7th and 8th grade levels. In the study, firstly all programs mentioned above were examined for each grade level, and then, all subjects in the numbers learning domain were listed from the first published program to the last published program. Then, for each of these subjects in numbers learning domain related to each grade level, all curriculums separately were examined, and it was determined in which curriculum the subject was included. Descriptive analysis method was used to analyze the data. The obtained data was arranged in tables, interpreted in a systematic and clear way. When the subjects in numbers learning domain in 5th grade level of curriculums were examined, it was determined that natural numbers, place value in natural numbers, basic operations with natural numbers, fractions, addition and subtraction operations with fractions, decimal fractions, addition and subtraction operations with decimal fractions, comparison of fractions and decimal fractions have been included in all programs. When examining the topics in numbers learning domain in 6th grade level of curriculums, it was seen that only decimal numbers have been included in all programs. When the subjects related to numbers learning domain in 7th grade level of all curriculums that have been taught since 1938 were examined, it was seen that rational numbers, basic operations with rational numbers, proportion and direct proportion, inverse proportion, proportion problems, percentage and percentage problems have taken part in all curriculums. At the 8th grade level, subjects in numbers learning domain in all the curriculums that taught since 1938 were examined and it was seen that there was no subject which

was in all of the curriculums examined. At each grade level, subjects apart from mentioned subjects above have been included in some of curriculums but have not been included in some of curriculums.

Keywords: Mathematics Education, Middle School Mathematics Teaching Programs, Numbers And Operations

OBESE, OVERWEIGHT AND UNDERWEIGHT AMONG TEENAGE STUDENTS AT SECONDER SCHOOL IN ZAKHO CITY,

Ahmad H. Ibrahim, Mohamed Sadeq Al-ibrahim, Ghanem Muhsin Jaafar, Sawsan S. Al-rawi, Ayman Salih Ajeed

Introduction: Obesity has become a major worldwide contributor to illness with an alarming increase in the incidence of childhood obesity. Risk factors for this disease include diabetes, obesity, and metabolic syndrome. Studies in childhood overweight and obesity are known to have significant impact on both physical and psychological health. Few studies have evaluated the impact of teenage obesity in seconder school students in Kurdistan Region-Iraq. Objectives: This study aims to evaluate school children obesity and parental feeding practices, and the conditions stages of the liver might associate with obesity. Materials & Method: In this study, 100 teenage student aged 12-19 were included. The height and weight of the children were measured. The children Body Mass Index (BMI), BMI z-scores and obesity status was determined according to (standard deviation), based on the Center for Disease Control (CDC) growth charts. BMI of 25-29.9 is considered to be overweight and that > or =30 obese. While >18.5 considerd underweight. Results & Discussion: The results indicated that 7% of the teenage tested were obese and 32% were overweight. Conversely, for underweight records, 6% were realized among the boys and girls in total. BMI was positively associated with child weight 55 % healthy status of liver function status. While negatively results associated with obese statues of fat liver and hepatitis Steatohepatitis. Conclusion: Monitoring, child food intake and encourage to eat healthy food will positively associate with normal child's weight status and decrease liver diseases and death in the future.

Keywords: Obesity, Teenage, Body Mass Index Bmi And Fatty Liver.

ONE OF THE FIRST FESTIVAL EXPERIENCES OF THE REPUBLIC: NOVEMBER 2, NATIONAL SOVEREIGNTY DAY (1923-1935)

Mesut Aydin

After the Grand National Assembly of Turkey (GNAT) was opened, the first structural change made in the field of politics was the abolishment of the Sultanate. The Ottoman Sultanate, which lasted for nearly 600 years, was terminated with the occupation of Istanbul on March 16, 1920; however, in the political and military conditions that were then-present, it lasted until November 1, 1922. In this process, the first order of business was to save the country from the occupation of the enemies, and therefore no sanctions were considered against the Sultanate. On the other hand, the considerations on abolishing the Sultanate came into the agenda during the preparations for the Lausanne Peace Treaty. Dr. Rıza Nur, who was the Member of the Assembly for Rize, and his 79 friends presented a proposal consisting of 6 items to the Presidency of the Assembly, and demanded that the Sultanate was separated from Caliphate, and the Sultanate was abolished. Ra'uf Orbay was also among those who signed this proposal. The subject was discussed in the

session on November 1, 1922 in the GNAT, and a law consisting of two items was enacted. According to this law, the Sultanate was abolished, and a person who had the best personality and moral values from the Ottoman Dynasty, would be selected as the Caliph. The Sultanate was abolished with this law, which was enacted on November 1, 1922; the personal sovereignty was terminated from then on, and the sovereignty was represented solely by the GNAT. When the topic was the search for national days that would be celebrated in the country, Rauf Orbay and Suphi Bey, the member of the parliament for Burdur, proposed in two separate bills demanding that November 2 should be accepted as the National Sovereignty Day or National Sultanate Day. The proposal was discussed in the Assembly, and it was enacted on October 24, 1923. In this context, it was accepted that each November 2 of every year would be celebrated as the National Sovereignty Day as of 1923. The National Sovereignty Day was abolished with the "Law on National Days and Vacation Days" that was enacted on May 27, 1935. In this study, the Literature Review Method was used as the research model. The findings that were found as a result of this review were evaluated.

Keywords: Sultanate, National Will, National Sovereignty Day.

OPTIMIZATION OF INTEGRATED PRODUCTION/DISTRIBUTION AND INVENTORY PLANNING MODEL FOR A FACTORY IN AUTOMOTIVE INDUSTRY

Zeynep Ceylan, Serol Bulkan

In current economic world, due to globalization, competition between companies, and reduction of profit margins, customer satisfaction has become vital and prior issue. It is obvious that for a customer the main demand is to have products just in time. Therefore, a systematic and successful inventory management skill is critical for companies to satisfy their customers to increase their profits. Due to the insufficiency of the assumptions in the classical inventory models to solve complex problems, many new improved inventory models have been developed depending on the problem structure or relaxation of existing assumptions. This study aims to investigate the production/distribution and inventory planning throughout multi-level supply chain of a factory in automotive industry. The network consists of manufacturing plants, distribution centers (DCs), and customer nodes. The problem was first formulated as bi-objective mixed integer linear programming model (MILP) then was solved using via GAMS software. The two objectives are minimization of the total cost while maximizing the overall service level of customers. The proposed model is capable of optimizing multi-period, multi-level, multi-product and multi-objective production network while considering inventory in both manufacturing plants and distribution centers of factory

Keywords: Inventory Planning, Multi-objective Optimization, Mixed Integer Linear Programming, Gams

OPTIMUM SIZING OF STANDALONE PV/WIND POWER GENERATING SYSTEM WITH STORAGE

Piyali Ganguly, Akhtar Kalam, Aladin Zayesgh

To allow a real penetration of the renewable resources which are intermittent and more or less easily predictable, optimal sizing of hybrid renewable power generation systems is essential. Proper design and sizing of Hybrid RES is very important, otherwise it might lead to increased establishment cost. This paper presents a model to optimize the capacity sizes of different components of standalone, hybrid photo-voltaic/wind power generation system using a battery bank. The recommended model takes into account the Deficiency of Power Supply Probability (DPSP) criteria for optimum sizing of the sources. It also

considers the minimization of system cost ensuring reliable and economic, load supply for the hybrid, standalone system. A case study has been conducted to analyse one standalone system which is designed to supply a community located in Portland, Victoria, Australia.

Keywords: Hybrid Renewable Energy Systems, Standalone, Optimum Sizing, Dpsp

PARAMETER TUNING FOR THE ARTIFICIAL ALGAE ALGORITHM

Mehmet Beskirli, Ismail Koc, Halife Kodaz

There are many biologically inspired metaheuristics optimization methods used for the solution of numerical functions or engineering problems. Optimization is defined as the process of choosing the best solution within certain constraints for a problem among all possible solutions. Metaheuristic algorithms known to be nature-inspired are used in the solution of the problems and have been developed in parallel with the behavior of living beings found in the nature. One of these methods is Artificial Algae Algorithm (AAA), a bio-inspired optimization method suggested by Uymaz which gives better results than other methods. AAA is one of the numerical optimization techniques developed recently. The question how we get the best result leads us to the development of algorithm even if it has a good performance. An algorithm is known to have a significant impact on its performance with the adjustment made in its parameters. This paper is baed upon making adjustments to the AAA parameters. Fine-tuning of parameters on population, shear force, adaptation, energy loss of AAA was made and tested on 4 benchmark functions with different characteristics. Analyzed with the parameters' effect results, AAA algorithm performance was found to yield better results.

Keywords: Artificial Algae Algorithm, Parameter Tuning, Benchmark

PB(II) ADSORPTION FROM AQUEOUS SOLUTION ONTO MANGANESE OXIDE-MODIFIED KAOLIN

Ahmet Sari, Mustafa Tüzen, Alper Biçer

This study is focused on the investigation of the Pb(II) adsorption from aqueous solution onto the manganese oxide (MnO2)-modified kaolin (Mn-mK). The chemical and morphological characterizations of Mn-mK were carried out by using Scanning Electron Microscopy (SEM) and Fourier Transform Infrared (FT-IR) analysis methods. The lead adsorption feasibility of Mn-mK was examined systemically by evaluating the effects of initial pH of solution, contact time, adsorbent concentration, and temperature of solution on the adsorption efficiency. From the Langmuir model, the adsorption capacity of modified sorbent were found to be 192.9 mg.g-1. Moreover, based on all results the prepared Mn-mK is promising adsorbent in the removal of Pb(II) ions from waste waters because of its relatively high adsorption capacity and the advantages of ease and preparation in low-cost.

Keywords: Lead, Kaolin, Manganese Oxide, Modification, Adsorption

PEDAGOGICAL APPROACH TO USE INTERACTIVE BOARD IN MATH AND SCIENCE CLASSES FOR 6TH GRADE IN PALESTINIAN SCHOOLS

Omar Karram

Interactive boards in school's classrooms considered as an important and valuable educational technology tool in the education process. It becomes famous in the educational system in Palestine. It's been installed in many public and private schools for different classes' level. Several training courses were conducted to train teachers in how to use interactive boards in their classes. Unfortunately, most of the teachers understood how to use the interactive boards as a technology tool without having a good understanding how to use it as a pedagogical tool. Therefore, teachers start to avoid using this tool since they believe it does not have any pedagogical perspective benefits. In this research I'll address a pedagogical technology approach to integrate and implement the interactive board in Math and Science classes for the grade 6th.
The approach integrates between normal boards and interactive boards. It shows how teachers may combine between the two boards in delivering the class's subjects to the students, which covers the pedagogical aspects and the correct usages of the interactive boards. Quantitative research approach is used to create and develop an effective plan to implement the interactive boards in delivering classes' subjects to the students and integrates them with the traditional boards. The plan is developed from several global and Arabic researches and experiences and matches the Palestinian education process needs.

Keywords: Pedagogical, Interactive Boards, Math, Science And 6th Grade

PERCEIVED TEACHER SUPPORT, STUDENT MOTIVATION, AND ENGAGEMENT IN SCIENCE CLASS: A PATH ANALYSIS

Münevver Subaşi, Gülşen Koçak, Yasemin Taş, Sündüz Yerdelen

This study had two main purposes: (1) to investigate to what extent students perceive their science teacher as supportive and determine the level of students' motivation toward and engagement in science and (2) to examine the relationship among teacher support, students' motivation, and student engagement in science. Student motivation was considered as task-value and academic self-concept while student engagement included aspects of agentic, behavioral, emotional, and cognitive engagement. In the study, survey method was used and the data were collected though previously validated self-report questionnaires. Valid data were obtained from 1006 students from grade 6 (35%), 7 (34%), and 8 (%31), who enrolled in one of 9 public middle schools located in Erzurum. 48% of the participants were girls and 52% were boy. The average age of the students was 12.75 (SD= 1.01). With the purpose of examining the levels of teacher support, student motivation, and student engagement, descriptive statistics were conducted. Participants reported high levels of science teacher support (M= 4.69 over 6, SD= 1.25). Moreover, students reported high levels of motivation (mean for self-concept was 4.17 over 5 and mean for task-value was 5.89 over 7) and engagement (means for sub-scales ranged from 2.89 to 3.41 over 4). In order to examine the relationships among aforementioned variables, a path analysis using LISREL 8.80 programme was conducted. Analysis results showed that teacher support statistically significantly and positively predicted task-value and academic self-concept. Furthermore, students' who reported high levels of task-value and academic self-concept showed higher levels in all engagement aspects (i.e., agentic, behavioral, emotional, and cognitive). Accordingly, it is important for science teachers to listen students, behave fairly, and help student to solve their problems in order to motivate their students' science learning and increase their engagement in science class.

Keywords: Teacher Support, Student Motivation, Student Engagement, Science Education

PERCEPTION IN STUDENT MIND OF SOME VALUES IN SOCIAL STUDIES PROGRAM

Sevgi Coşkun Keskin, Ayşegül Kirtel

The social studies curriculum aims to help individuals become "good citizens". The concept of "being a good citizen" cannot be thought out of the sense of values. The social studies curriculum that is being implemented in our country aims to give values in the context of gains and transferring these gains to life. In this sense, the perception of values in students' minds is very important. In this context; it was aimed to see the perception of values in the minds of the students in the first period they met with the social studies lesson and the change in the perception of values in their minds after taking this lesson. For this purpose, it was chosen the values of tolerance, respect, sensitivity and responsibility that take part in social studies program in 5-8. class. It was used a single scan model from general scan models in the research. In order to achieve this goal, the developed value-related test was applied to 121 students in 5th grade, 148 students in 8th grade, 269 students in total. The obtained data were subjected to percentage and frequency analysis on the basis of the values. Cutting points; values higher than 30, 25, 20 and 10 were related to each other by using the mind map. When the resulting associative mind maps are examined; it was seen that the sensitivity value of 5th and 8th grade students associated the theme of being conscious human beings and be having sensitively. It was found that 5th grade student's the value of responsibility was related to the school duties, 8th grade student's the value of responsibility were also related to citizenship theme unlike 5th grade students. When the mental map of respect value was examined, it was found that 5th and 8th grade students expressed the respect to big people much more than others. It was seen that 5th grade student's the value of tolerance were related to good behavior theme, and 8th grade student's the value of tolerance were related to citizenship theme.

Keywords: Social Studies Education, Responsibility, Tolerance, Respect, Sensitivity

PERCEPTIONS OF INSTRUCTORS ABOUT ACADEMIC ACTIVITIES

Cemalettin Yildiz, Resul Göl, Adem Duru

In this research, it is aimed to determine the perceptions of instructors about academic activities (congress, symposium, panel, course, seminar etc.). Qualitative research approach was used in the study. The research was conducted with 118 instructors working at a state university. The data were collected with the help of a questionnaire prepared in line with the type of the relevant literature and expert opinions. The questionnaire consists of open ended questions regarding the reasons for participating in the academic activities, the difficulties encountered about academic activities, the desire for the place and time of the academic activities, the contribution of the academic activities to the institution, science, and themselves, the preference of the domestic or abroad activities, the frequency of participation in academic activities and suggestions for the individuals who will attend academic activities in the future. After the content analysis, the data from the questionnaire is tabulated and direct quotations are given about the prominent codes. As a result of the study, it has emerged that the instructors participated in academic activities to become more specialized in the field and to be aware of developments in the field, and the financial insufficiency and transportation difficulties adversely affected their participation in such activities. However, it has been determined that instructors want academic activities to be carried out in places where access is easy and on holiday. In addition, the instructors expressed that the name of the university, which is being worked, has been announced through academic activities, they attend domestic activities more and they try to participate in these activities 1-2 times a year. Finally, it is found that although instructors think the studies sent to academic activities are evaluated according to the academic title, they believe that all academicians should participate in these activities. Depending on the results of the research, it is proposed to facilitate the process of permits from universities to go to academic events and to increase the financial allowances allocated to such activities in universities.

Keywords: Instructor, Congress, Symposium, Perception

PLAY ACTIVITIES IMPLEMENTED IN KINDERGARDEN CLASSROOMS

Sonnur Işitan, Mesut Saçkes, Kerem Avci

This study was aimed to determine pre-school teachers' implementation of play activities in their classrooms. The sample of the research consisted of 50 pre-school teachers working in state-funded and private kindergartens in the north-western region of Turkey. A questionnaire with two parts was developed by researchers to collect the data. The first part included items targeting the demographic characteristics of the teachers. The second part included questions about the play activities implemented in the kindergartens. Of the 10 items, three of them were "yes-no" questions, four of them were multiple-choice questions, and three of them were open-ended questions. The data were gathered via face to face interview with the teachers. The results demonstrated that all teachers implemented various play activities with children both inside and outside of the classroom. The vast majority of the teachers implemented play activities based on the competition in the classroom and had difficulties during the play in the kindergarten environment. Most of these difficulties were physical space limitation and insufficient materials. Early learning environments should be designed to address the space and material related limitations to provide children learning environments where they can run and play comfortably

Keywords: Early Childhood Education, Play, Educational Play

POST-CONFLICT, TRANSITIONAL AND FAILED STATES

Hamida Aljaridi, David Ong, Gary Wilson

Post-conflict, transitional and failed states are the concepts in which use to describe the states and have been used widely by many academic researchers as synonyms, the post-conflict and transitional concepts, in particular. Thus, this paper aims to present the differences between the concepts of post-conflict, transitional, and failed states. This paper argues that although these concepts of states have similar features and use as synonyms, there are several differences between each other, and they do not have the same meaning. The finding of this paper is that the concepts of post-conflict and transition could be described as stages or phases which a state may pass through them before it will become a stable state depending on the factors that may affect them. There are some factors may have a crucial impact on the final shape of the state, such these factors, the political history of the state, the reasons for the changing its shape, war or changing the political system, for instance. In addition, this paper has described all of these states by providing their features and conditions, and finally providing the examples for every one of these states. In conclusion, this paper presents the important difference between the concepts of post-conflict, transitional and failed states by providing the features, conditions and examples of each one of these states.

Keywords: State, Failed, Transition, Concepts, Post-conflict

POSTER SUBJECT IN THE PROCESS OF ART EDUCATION AND SEMIOTIC STUDY

Ahu Simla Değerli

Humans are separated from all other living things in terms of perceiving and making meaning of the things that make up nature. They distinguish, choose and interpret what is happening in the outer world with its five senses. One of the sciences that they resorted to when trying to solve the meaning is the science indicator. The grammatical terminology produced by taking the example of linguistic language as our example is firstly expressed as "scientific study" or "scientific examination of the indicators". But in recent years, the coverage of this word has gone beyond the semantic sum of the words "indicator" and "science" that have brought about it. An indicator is any form, object, phenomenon, or the like, which represents something other than itself in general terms, and thus is capable of taking the place of what it represents. Indicators can be antagonistic in all areas of our lives. It may be in a movie, a piece of art, a poster we saw walking on the road. The common goal of all of these mass media is to give a message of watching. Semantic analysis methods lead the viewer to make sense of them. From this point of view everything about meaning is in the field of semiology. Three elements are important in semiological analysis. The indicator is the indicated (the thing that the manifest is sending) and the showing (the physical presence of the manifest). These three basic elements are the building blocks of indicator theories and constitute the skeleton of this work. In this study, it was emphasized the importance of posters in graphic lessons in the process of art education. In this context, analysis studies on well-known examples of social and cultural posters were made by using Saussure's semiological method. Literature survey method was used as data collection method in the study. Books related to the subject were scanned, periodicals were reviewed, current sources available on the internet were obtained, publications of universities were followed up, articles and existing theses were examined and necessary information was obtained. The information and results obtained will be discussed.

Keywords: Art Education, Poster, Semiotics

POTENTIOMETRIC TITRATIONS OF SOME [2-METHOXY-5-(3-ALKYL/ARYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE-4-YL)-AZOMETHIN]PHENYL BENZOATES

Şule Bahçeci, Nuri Yildirim, Özlem Gürsoy Kol, Murat Beytur, Haydar Yüksek

Determination of pKa values of the active constituent of certain pharmaceutical preparations is important because the distribution, transport behaviour, bonding to receptors, and contributions to the metabolic behaviour of the active constituent molecules depend on the ionization constant (Demirbas et al., 1998; Frey, Kokesh & Westheimer, 1971; Putun, Bereket & Keskin, 1995). In the present study, ten synthesized [2-methoxy-5-(3-alkyl/aryl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl benzoates which were obtained according to Bahçeci et al, 2016, were titrated potentiometrically with tetrabutylammonium hydroxide in four non-aqueous solvents such as acetonitrile, isopropyl alcohol, tert-butyl alcohol, and N,N-dimethylformamide, and the half-neutralization potential values and the corresponding pKa values were determined for all cases.

Keywords: 4,5-dihydro-1h-1,2,4-triazol-5-one, Schiff Base, Acidity, Potentiometric Titration.

PRACTICAL RECOMMENDATIONS FOR INDUSTRY MENTORSHIP BASED ON OBSERVATION OF STUDENT SUPERVISION FOR EITHER UNIVERSITY EXERCISE SCIENCE OR VOCATIONAL EDUCATION AND TRAINING (VET) TERTIARY EDUCATION, HEALTH AND FITNESS STUDENTS

Tom Walsh, Ian Timothy Heazlewood, Daniella Kai Gu, Joe Walsh, Mike Climstein

More than 30 of the 43 universities in Australia offer an exercise science and/or sport science programs. In the Vocational Education and Training (VET) sector, more than 160 Registered Training Organisations offer Australian Government approved fitness training courses. This observational report is based upon reflection on mentoring industry placement/work experience students over a number of years, this represented evaluation of more than 200 students and more than 20,000 placement supervision hours. Such students included those from Vocational Education and Training (VET) based courses, as well as those from the university sector. It is hoped that evaluation of the experience gained from providing such a service, together with a combination of practical recommendations for those considering offering such a service or continuing to do so, may assist all parties involved. This report includes specific comments, in terms of recommendations for practical placement/work experience in context of either VET and/or university sector education.

Keywords: Student Supervision, Practical Placement, Vocational Education And Training

PREDICTION GENERATION FROM BASKETBALL DATA BY ARTIFICIAL NEURAL NETWORKS AND WITH ANFIS

Bekir Parlak

In this study, estimation of points scored per minute was made by going out of the basket in a certain time frame. Both the Artificial Neural Network (ANN) and the Adaptive Neuro Fuzzy Inference System (ANFIS) models were used for estimation. In the study, it was tried to estimate how many points were gained in average per minute, which corresponds to 9 inputs. The test performance of the two models was obtained in terms of the mean square error (MSE) and the root mean square error (RMSE) and compared with each other. The results obtained show that ANFIS has superior performance to YSA in the point estimation function.

Keywords: Points Per Minute, Basketball, Ann, Anfis, Mse, Rmse

PREPARATION AND ANTIOXIDANT ACTIVITIES OF SOME NEW 3-ALKYL(ARYL)-4-(3-METHOXY-4-ACETOXYBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Haydar Yüksek, Abdulmelik Aras, Murat Beytur, Sevda Manap, Özlem Gürsoy Kol

Triazoles are heterocyclic compounds that contain three nitrogen atoms. 1,2,4-Triazole and 4,5-dihydro-1H-1,2,4-triazol-5-one derivatives are reported to possess a broad spectrum of biological activities such as analgesic, antibacterial, antioxidant and antiparasitic properties. In this regard, nine new 3-alkyl(aryl)-4-(3-methoxy-4-acetoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones (3) were synthesized from the reactions of 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with 3-methoxy-4-acetoxybenzaldehyde (2) (Yuksek et al., 2016). The structures of nine new compounds were established from the spectral data. The synthesized 3 type compounds were analyzed for their in vitro potential

antioxidant activities in three different methods; including reducing power, according to the method of Oyaizu (1986); free radical scavenging activity, using the method of Blois (1958) and metal chelating activity, by the method of Dinis, Madeira & Almeida (1994). Butylated hydroxytoluene (BHT), butylated hydroxyanisole (BHA) and α-tocopherol were used as reference antioxidant compounds. The investigation of antioxidant properties screening data revealed that especially compound 3-methyl-4-(3-methoxy-4-acetoxybenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one showed moderate activities. Future studies will be necessary to determine their possible role in mitigating the deleterious effect of ROS in different biological systems.

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis, Antioxidant Activity.

PRESCHOOL TEACHERS' OPINIONS ON OUTDOOR TEACHING

Ayşe Nur Bulut Üner, Günseli Yildirim, Güzin Özyilmaz Akamca, Murat Ellez, Sibel Karabekmez

Outdoor activities in pre-school teaching take part in activities that affect children's cognitive, physical, social and emotional development. They emphasize children's daily life experience and support the development of their creativity. Outdoor activities enable children to explore the surrounding areas by doing and experiencing through the sense organs (Alat, Akgümüş & Cavalı, 2012). It is suggested to use out-of-class places in the pre-school teaching program of the Ministry of National Education (MoNE, Preschool Education Curriculum, 2013). This study was conducted to examine the opinions of pre-school teachers on outdoor activities that are important for all developmental areas of children. The study was conducted with 30 pre-school teachers working in pre-schools and kindergartens based on the Ministry of National Education of İzmir in 2016-2017 academic year. In this study, where qualitative research method is used, semi-structured interview form developed by researchers was used as data collection tool. The data obtained from the interviews with the teachers were coded by the two researches and the encoder security was provided and preschool teachers' views on outdoor education were examined. As a result of the analysis of the obtained data, views of pre-school teachers on outdoor education were revealed.

Keywords: Outdoor, Preschool Teacher, Preschool Education

PRINCIPLES', PRE-SCHOOL TEACHERS' AND PARENTS' VIEWS ON THE EFFECTIVENESS OF THE LIFE-FOCUSED FOREIGN LANGUAGE ACQUISITION PROGRAM WHICH IS DEVELOPED FOR PRE-SCHOOL AGED CHILDREN

Banu Uslu, Aysel Çağdaş

The present study was carried out in order to determine the views and thoughts of school principles, teachers and pre-school children's parents about life-focused foreign language acquisition program. The research was carried out qualitatively. To collect the qualitative data a semi-structured interview form was used which is developed by the researcher. The collection of qualitative data started on 01.12.2015 and ended on 19.02.2016. Interviews were made with 38 participants. The participants were as follows; 1 principal, 1 assistant principal, 4 teachers and 32 parents. The qualitative data obtained in the study were analyzed by "content analysis" technique. In order to determine the important concepts and distributions that emerged during the interviews Wordclouds program was used. As a result of analysis of various data obtained from parents, teachers, school principal and assistant principal in the study it was found that there were positive opinions in terms of life-focused foreign language acquisition program. The themes

that emerged during the interviews are as follows; active foreign language use, active transfer of foreign language, self confidence in using foreign language, active interest/positive attitude towards foreign language, improvement in self-expression/ pronunciation, sharing effectively whatever is learned, making progress actively in foreign language and multiple experiences in foreign language learning (visual, auditory, etc.).

Keywords: Pre-school, Life-focused Foreign Language Teaching, Foreign Language Acquisition

PROFESSION IDENTIFICATION DECISION SUPPORT SYSTEM

Uğur Özcan, Serhan Kökhan, Fatma Binbaşioğlu

There are preemptive alternatives in our lives, and we need to decide something based on these alternatives. But some causes make it difficult for us to decide. Accordingly, we are looking for 'support' that will help us decide with us in this process. One of these processes is to decide in which field you will work after you become a profession. In this decision-making process, there are now criteria for alternative work areas and work areas for each occupation. In this process, the Analytical Hierarchy Process (AHP) based Professıon Identıfıcatıon Decısıon Support System (PIDSS) is designed to facilitate decision making. At the end of this application, the person who wants to decide which working area to work and will find the working space proposal suitable for his / her chosen occupation.

Keywords: Decision Support System, Analytic Hierarchy Process, Consistency Ratio, Decision Making On The Profession, Multiple Criteria Decision Making Methods

PROMOTING PRESERVICE TEACHERS' ATTITUDES TOWARD SOCIOSCIENTIFIC ISSUES THROUGH A SEMESTER-LONG INSTRUCTION

Sündüs Yerdelen, Nurcan Cansiz, Mustafa Cansiz, Hakan Akçay

The purpose of this study is to examine the effect of a socioscientific issues-based instruction on preservice teachers' attitudes toward socioscientific issues (SSIs). For this purpose, a semester-long SSI-based instruction was designed and implemented. The participants of this study included 54 preservice science teachers (PSTs) and 32 preservice social-science teachers (PSSTs). In order to measure participants' attitudes towards SSI, Attitudes towards Socioscientific Issues Scale (ATSIS) (Topcu, 2010) was administered before and after the instruction. ATSIS is a 6-point Likert-type scale which consists of 3 subscales: interest and usefulness of SSI (17 items); liking of SSI (7 items); and anxiety towards SSI (6 items). The result of mixed between-within subjects ANOVA revealed that the interaction effect was not significant for three subscales. That is, SSI-based instruction yields similar change for PSTs and PSSTs on interest and usefulness of SSI [Wilks Lambda = .99, F(1, 84) = .95, p = .334]; liking of SSI [Wilks Lambda = 1.00, F(1, 84) = .009, p = .926]; and anxiety towards SSI [Wilks Lambda = 1.00, F(1, 84) = .003, p = .96]. For both groups, SSI-based instruction resulted in significant increase in interest and usefulness of SSI [Wilks Lambda = .85, F(1, 84) = 14.32, p < .0005, partial eta squared = .15] and liking of SSI [Wilks Lambda =.72, F(1, 84) = 32.37, p < .0005, partial eta squared = .28] but anxiety scores of both groups didn't change significantly after the instruction [Wilks Lambda = 1.00, F(1, 84) = .003, p = .958, partial eta squared < .0005]. The result implies that, regardless of majors, SSI-based instruction have potential to improve PTs' interest and liking of SSI which, in turn, would favor their attitudes toward SSI.

Keywords: Socioscientific Issues, Preservice Teachers, Attitude, Experimental Study, Science Education

PROSPECTIVE PRIMARY TEACHERS' VIEWS RELATED TO SEVEN PRINCIPLES FOR GOOD PRACTICE AT IMPLEMENTING IN UNDERGRADUATE EDUCATION

Oylum Çavdar, Nilüfer Okur Akçay, Seda Okumuş, Coşkun Deveci

The aim of this study is to determine prospective primary teachers' views related to seven principles for good practice at implementing in undergraduate education. Survey method was used in this study. The sample of the research consists of 38 prospective primary teachers who are educated in the 4th grade of Muş Alparslan University Education Faculty. In order to collect data in the research, The Scale of Seven Principles for Good Practice (SSPGP), which consists of 8 open-ended questionnaires. For the validity of the test, experts were consulted. After the pilot study, it was done necessary corrections and the scale was rearranged. It was used percentage and frequency rate of descriptive statistics for analyzing data. According to findings, it was determined that most of prospective primary teachers have no information related to the seven principles for good practice. With regard to prospective primary teachers, academicians did not use the seven principles for good practice exactly.

Keywords: Seven Principles For Good Practice, Prospective Primary Teachers

PSYCHOLOGICAL FACTORS UNDERLYING UNETHICAL RESEARCH

Sahar Nazemian, Farhad Balash, Ameneh Alipour

This study is to cast a light on psychological factors, which create unethical research. Since psychological factors are the key factors to control human behavior, in this paper they are highlighted as the main purpose of the study. Methodologically, qualitative approach was applied to reveal the factors. Three analysis techniques of grounded theory assisted the researchers to discover the main factors. Ten faculty members were interviewed as to understand the ways that factors could deploy around the phenomenon. By considering the Kurt Lewin's field theory, the factors were directed based on their weights. Results show that lack of self control, reduced moral awareness, ethical degradation and negative self view would lead to show paucity of research ethics.

Keywords: Research Ethics, Faculty Members, Psychological Factors

PUMICE/FATTY ACID EUTECTIC AS COMPOSITE PHASE CHANGE MATERIAL FOR THERMAL ENERGY STORAGE IN BUILDINGS

Ahmet Sari, Alper Biçer

Phase change materials (PCMs) have been widely used in for thermal energy storage (TES) in buildings. For this aim, PCMs have been incorporated with gypsum board, plaster, concrete, porous clay minerals or other wall-covering materials. Pumice clay can be used together with cement, mortar and concrete due to its good compatibility and chemical inertness. These properties make it a potential matrix for the construction of S-SCPCMs. Moreover, pumice clay is abundantly available and can be easy handled in Turkish markets. This paper was focused on the preparation, characterization of TES properties of pumice/lauric acid-myristic acid (LA-MA) composite. The morphology, chemical structure and TES properties of the prepared pumice/LA-MA composite was studied by using SEM, FT-IR, DSC and TGA analyses. The FT-IR and SEM results showed that the pumice show well compatibility to the eutectic PCM and it was well-infiltrated into the porous structure of pumice. The DSC results indicated that the pumice/LA-MA including 24wt%LA-MA has a melting temperature of 32.78ºC and latent heat of melting of

34.18 J/g. The TG analysis showed that the produced S-SCPCM has greater thermal durability compared with pure LA-MA. All results showed that the fabricated composite PCM is suitable for heating and cooling applications in buildings envelopes.

Keywords: Composite Pcm, Pumice, Capric Acid, Myristic Acid, Thermal Energy Storage.

QUALITY IN HIGHER EDUCATION

Zoltan Zakota, István Péter Németh, Hajnalka Izsák

Quality, understood both as a standard of something as measured against other things of a similar kind or the degree of excellence of something, or even as a distinctive attribute or characteristic possessed by someone or something is one of the key concepts used in evaluating any product or service. Nowadays, quality became a notion almost as important as profit or market share. In the last decades, it became one of the key factors even in the process of evaluating educational institutions, and, among them those in the field of higher education. In our paper we intend to present the actual interpretations of our key notion and how it can be applied in the field of higher education. We also want to present the main techniques that can be used in the quality management of those institutions, with special regard to the European Union. And, last but not least, we want to show some potential trends in the field of quality management.

Keywords: Higher Education, Quality of Education, Accreditation

REAL-TIME MEASUREMENT OF THE ECG, SPO2 AND TEMPERATURE WITH VIRTUAL INSTRUMENTS FOR BIOMEDICAL TECHNOLOGIES EDUCATION

Samet Çiklaçandir, Naciye Mülayim, Savaş Şahin

The ECG (Electrocardiography) signal is to measure the electrical activity of the heart. Such signal is used to diagnose or operate patients for various diseases. The ECG signal is one of the best diagnostic devices for heart diseases. The purpose of this work is to display the ECG signal in the LabVIEW (Laboratory Virtual Instrument Engineering Workbench) environment. To design own such ECG circuit. The program can also easily process the ECG signal in various ways. There is no need to setup any electronic circuit. In addition to the ECG signal, modules with pulse oximeter and temperature e indicating oxygen saturation are added. In this study, low cost ECG, temperature and pulse measurements were performed in our own laboratory environment. The measurement circuit was communicated with the LabVIEW program via Arduino. The data received with Arduino is shown after processing in the LabVIEW environment. The program also shows the patient's heart rate and alerts when the patient enters a heart attack.

Keywords: Real-time Electrocardiography (ecg), Temperature, Pulse Oximeter, Labview, Biomedical Technologies Education.

RELIGIOUS COMMUNITIES IN THE MODERN WORLD

E. Meliha Kurtdaş

Mankind has always struggled to survive by meeting its basic physiological needs. However, human being is not only a physiological entity but also a psychological, cultural and social entity. For this reason, it has always been necessary to live together. Over time, this necessity has left its place together with the will. These groups called congregations have created more blood and space-based links than the modern nation-state process. However, with industrialization, the traditional congregational ties of people who came to cities from rural ties were also resolved. In this process, the congregational structures have

entered a different form. In the study, firstly the transformation of the congregations in history will be dealt with. Then religious communities in the modern world and the characteristics of these communities will be emphasized. Finally, a sociological analysis of religious community structures in the Islamic world will be conducted.

Keywords: Modernism, Urbanization, Religious Communities, Industrialization, Religious Movements

RESEARCH ETHICS AMONG FACULTY MEMBERS IN IRAN

Farhad Balash, Mahani Mokhtar

Research ethics is one of the ongoing issues of universities. The purpose of this paper is to conceptualize the ethics about research among medical academics in an Iranian medical university. Unfortunately, ethics in research among medical academics pays little attention in Iran. Methodologically, qualitative study 2015 in an Iranian medical university discloses the different aspects of ethics in research. Twenty-two academics participated as the key informants to reflect the different aspects of research ethics. The findings of this study disclose that research ethics were configured by core phenomenon of ethical norms with three level and five secondary level dimensions. These dimensions are jealousy, irresponsibility, and dishonesty for the first level and manager responsibility, senior irresponsibility, synthesis, ghost authorship, and black market for the secondary level. Consequently, recognizing the norms of ethics in research are indispensable to develop research culture as to help academics to improve their research outcomes.

Keywords: Research Ethics, Academic Member, Medical University, Research Norms

RIS3 STRATEGY VERSUS NATIONAL OPEN INNOVATION STRATEGY IN SLOVAKIA

Marian Zajko

ABSTRACT: In December 2016 Austria presented to domestic and international audiences in Vienna the National Open Innovation Strategy as one of the first countries in the world. The underlying ambition of this strategy is to contribute to achieving objectives of Open Innovation 2.0 and thus boost Austria in the group of European innovation leaders. It is not only the content and structure of this vision but also approach to its elaboration and its justification which are worth pondering. Within the Europe 2020 Strategy all EU countries elaborated own Research and Innovation Strategies for Smart Specialization (RIS3) for period 2014 to 2020 and implement them. If both Austria and Slovakia follow implementation of their RIS3 Strategies, is there any need for Open Innovation Strategy in Slovakia as well? Slovakia as a moderate innovator in the EU context struggles to make the triple helix model viable (low indices GERD and BERD as % of GDP) and work properly in its economy and society. Therefore the paper deals with analysis of common and differing components of RIS3 Strategy and National Open Innovation Strategy. It recommends to enrich the Slovak RIS3 Strategy with facets of OI paradigm in order to make the quadruple helix concept work in the Slovak economy in the next years and move it up in the group of innovation-followers.

Keywords: Strategy, Open Innovation Paradigm, Quadruple Helix Model, Open Innovation 2.0

ROLE OF INDUSTRIES AND HIGHER SCHOOL OF ENGINEERING TOWARDS GREEN INDUSTRIALIZATION AND GREEN ECONOMY: CASE STUDY OF MOROCCO

Amina Laaroussi, Soumia Bakkali, Abdelaziz Mrani, Youssef Taouil

The green economy was introduced in recent years at the national and international levels. It has appeared as a way that could assist to achieve sustainability, and it includes economic development. It has the ability to master emissions of gas effects, to make effective utilization of natural resources and enhance productivity. This paper discusses the role of industries and higher school of engineering as contributors to the development of green economy. Industries are responsible to control the impact of their activities on the environment and on consumers, by the adoption of green technology and a new way to ensure innovation, as well as the development of competitiveness. Such contributions require the presence of manager profiles owning technology skills, thus an understanding of energy and environmental issues. This paper presents a survey that was conducted in an engineering school to evaluate the awareness, attitudes, expectations and needs of the engineer's students in green energy education to meet the challenges of sustainable development, to satisfy to demands of Moroccan industrials and Job market in terms of competency. Via review on traditional methods of teaching and learning within school and the utilization of E-learning method outside school and break with the traditional practices of the discipline. Moreover, the aim of this study is to train and develop the competencies in both technical and environmental aspects and to highlight the utilization of E-learning as an advantageous key for developing countries like Morocco. Results of the realized survey provide a hard argument for a dimensional research to create the engineering student's needs.

Keywords: Green Industrialization, Engineering Education, Green Economy, Skills, E-learning.

ROLE OF UAE'S ACADEMIC INSTITUTIONS IN IMPLEMENTING SOLAR ENERGY RESEARCH

Bilal Akash

This paper presents the role of universities in the United Arab Emirates in implementing projects for the technological development in solar energy. According to published data taken from Scopus database, there are 8 major higher academic institutions that contribute to solar energy research in the UAE. They are: (a) Masdar Institute, (b) Petroleum Institute, (c) United Arab Emirates University, (d) American University of Sharjah, (e) University of Sharjah, (f) Khalifa University, (g) New York University at Abu Dhabi, and (h) American University of Ras Al Khaimah. The contribution is considered in terms of published work, with a total of 762 documents published by end of year 2016. The above academic institutions have a combined number of publications of 595 documents (i.e., representing about 80% of the total). Of course this couldn't have happened without the international contribution. The highest five contributing countries with the UAE are (a) USA, (b) United Kingdom, (c) Canada, (d) Australia, and (e) Italy. Achieving sustainable development requires collaboration between different sectors and institutions, as well as the participation of all relevant stakeholders and individuals. The major contribution of institutions of higher education and research centers to society's efforts at achieving sustainability is well recognized. In the UAE most of the research work conducted is performed by academic institutions or research centers that are part of academic institutions. For example, American University of Ras Al Khaimah has a major research center devoted to sustainability called RAK Research and Innovation Center (RAKRIC; its website address is http://rakric.com/). It is a state of art research and development center specializing in sustainable system solutions. This center is has an area of 87,000 m2 of land. It is located in the industrial zone, outside the university campus. Unique Solar R&D facilities are built on site. They are open to cooperation with world leading academic, technology and industrial development centers. Today this center includes seven R&D test platforms focusing on photovoltaic, solar cooling, solar hybrid minigrid, green building, solar water desalination, solar island and concentrated solar power. One of the most promising applications of

renewable sources in UAE is to harness the energy required to supply fresh water. Water desalination using renewable energy technologies, such as solar is possible. Employing such new systems to produce fresh potable water in the future gives solutions from feasibility, sustainability, environmental and safety issues to national economy, and social benefits. The need for sustainable approach to tackle the issue of bottled water has motivated us to develop an in-house water purification unit based on membrane distillation (MD) technology. MD is a novel process that could be adapted effectively for many water purification applications. A difference in partial pressure serves as the driving force, and the presence of a hydrophobic membrane ensures high water quality regardless of feedstock parameters. Hot-side temperatures below 90 °C are suitable and this process has been proven ideal for exploiting waste heat or solar thermal resources for small scale applications. There is an acute increase in the energy utilization as well as its production in UAE. This is because of increase in population and economy, which results is an increase in CO2 emission and global warming. In this work, Scopus-database was used to analyze and investigate the status of solar energy research in the United Arab Emirates. Scopus-database provides a huge source of information that can be used for many purposes. One purpose is to analyze and track the history and range of peer-reviewed published articles and their citations of an author, affiliation, or a country. It is a large abstract and citation database of peer-reviewed literature: scientific journals, book chapters, and conference proceedings. The study will lead to a better understanding of the current and future status of research in the field of solar energy in the UAE. Hopefully, the results of this study will be of benefit to energy policy makers and those active in research improve solar energy in the UAE. Scopus data were used in number of publications in literature. Scopus allows different search parameters such as “Document search”, “Author search”, “Affiliation search”, and “Advanced search” for many fields such as “Article Title, Abstract, Keywords”, “Source Title”, “Year of Publication”, etc. Keyword used in this study is simply “solar” in document search for the various countries, then the selection was limited to United Arab Emirates. The data collated were used to gather the following facts: (a) Publication activities of UAE as compared to other countries, (b) Top cited solar energy-related articles in UAE, (c) Solar energy related publication distribution in various academic institutions, (d) Top journal titles with solar energy publications with UAE affiliations. The data were limited until the end of year 2016.

Keywords: Solar Energy; UAE

SCALING PRESERVICE TEACHERS’ RESPONSES REGARDING TOPICS THEY EXPERIENCES DIFFICULTY IN MEASUREMENT AND EVALUATION LESSON WITH PAIRED-WISE COMPARISON METHOD

Ceren Mutluer, Tuba Gündüz, Mehtap Çakan

As an important part of the education system, it is requested that the teachers can measure and evaluate the affective, cognitive and psychomotor behaviors of the students. The ability of teachers to fulfill these responsibilities depends on the knowledge, skills and experience they have gained in the assessment and assessment course, in their knowledge and attitudes, and most importantly in the course of undergraduate education. The ability of teachers to fulfill these responsibilities depends on knowledge, skills about measurement and evaluation subject and most importantly their knowledge, attitudes and experience measurement and evaluation lessons in undergraduate education. This measurement and assessment knowledge and skills which take this lesson in undergrade process enable them to evaluate their students in a reliable and valid way in future institutions and to provide their students with quality feedback to improve themselves. In this study, it is aimed to determine the subjects which the preservice teachers in the lesson of undergraduate education are challenged in the measurement and evaluation lessons and to scale these subjects by the binary comparison method. Basic research pattern was applied as a pattern in the research. . The sample of the research consists of 200 preservice teachers who have taken the lesson of measurement and evaluation at Gazi and Abant İzzet Baysal Universities. A questionnaire developed by researchers was used as data collection tool. . In the questionnaire developed in the survey, questionnaires related to the basic subjects of the undergraduate assessment and evaluation lesson of the preservice

teachers' basic concepts, basic qualifications to be taken as a measurement tool, item statistics, test statistics, traditional measurement and evaluation techniques, complementary measurement and evaluation techniques, Is prepared. Students' responses to the developed questionnaire are based on Thurstone's comparative jurisprudence, which is used under different assumptions. And V. state equations. As a result of the binary comparison analysis, it was seen that the preservice teachers had more difficulty in the matter and test statistics. This sequencing is followed by complementary measurement and evaluation techniques.

Keywords: Preservice Teachers, Measurement And Evaluation, Paired- Wise Comparison Method, Scaling

SHORT TERM LOAD FORECASTING USING FUZZY LOGIC

Piyali Ganguly, Akhtar Kalam, Aladin Zayesgh

For an economic generation of power, load forecasting is necessary. It is also important for economic allocation between plants (Unit commitment scheduling), maintenance scheduling and for system security such as peak load sharing by power interchange with interconnected units. In the present work, the results of a fuzzy logic model for short-term (hourly) load forecasting are presented. The present methodology uses the historical load data and the time of the day to design the Fuzzy rule base to predict the load curve of the day. The results obtained prove that the Fuzzy rule base can efficiently predict the short term load demand with minimum error.

Keywords: Short Tern Load Forecasting, Fuzzy Logic

SILICAFUME/CAPRIC ACID (CA) COMPOSITE AS A NOVEL FORM-STABLE PHASE CHANGE MATERIAL FOR THERMAL ENERGY STORAGE

Alper Biçer, Ahmet Sari

This paper is aimed to prepare, characterize, and determine thermal energy storage properties of silicafume/Capric acid(CA) composite as a novel form-stable composite phase changematerial(PCM). The composite PCM was prepared by incorporating CA in the silicafume by using vacuum impregnation method. The CA could be retained by 30 wt% into the silicafume without the leakage of melted CA from the composite. The composite PCM was characterized by using SEM and FT-IR analysis techniques. Thermal energy storage properties of the composite PCMs were determined by DSC analysis. DSC results showed that the melting temperature and latent heat of the composite PCMs are 30.31 oC and 65.12 J/g, respectively. Thermal cycling test was conducted to determine the thermal reliability of the composite PCM and the results showed that the composite PCM had good thermal energy storage reliability and chemical stability. TG analysis revealed that the impregnated CA into the silicafume had good thermal stability. Thermal conductivity of the composite PCM was improved by adding carbon nanotubes (CNTs) in different mass fractions. The effect of CNTs addition on the thermal energy storage/release times of the produced composite PCM was also tested.

Keywords: Ca, Silicafume, Composite Pcm, Thermal Properties, Thermal Energy Storage.

SILICAFUME/POLYETHYLENE GLYCOL (PEG) COMPOSITE AS A NOVEL FORM-STABLE PHASE CHANGE MATERIAL FOR THERMAL ENERGY STORAGE

Alper Biçer, Ahmet Sari

This paper is aimed to prepare, characterize, and determine thermal energy storage properties of silicafume/polyethyleneglycol(PEG) composite as a novel form-stable composite phase changematerial(PCM). The composite PCM was prepared by incorporating PEG in the silicafume by using vacuum impregnation method. The PEG could be retained by 30 wt% into the silicafume without the leakage of melted PEG from the composite. The composite PCM was characterized by using SEM and FT-IR analysis techniques. Thermal energy storage properties of the composite PCMs were determined by DSC analysis. DSC results showed that the melting temperature and latent heat of the composite PCMs are 59.29 oC and 73.71 J/g, respectively. Thermal cycling test was conducted to determine the thermal reliability of the composite PCM and the results showed that the composite PCM had good thermal energy storage reliability and chemical stability. TG analysis revealed that the impregnated PEG into the silicafume had good thermal stability. Thermal conductivity of the composite PCM was improved by adding carbon nanotubes (CNTs) in different mass fractions. The effect of CNTs addition on the thermal energy storage/release times of the produced composite PCM was also tested.

Keywords: Peg; Silicafume; Composite Pcm; Thermal Properties; Thermal Energy Storage

SMALL BUSINESSES IN CYPRUS ACCORDING TO THE DETAILED CADASTRAL BOOK 64

Recep Dündar

After the conquest, the cadastral works of the Cyprus State were started on October 9, 1571, and were completed on October 18, 1572. The book that included the cadastral records is the one kept in the General Directorate of Cadastral and Title Deed Works Archives with the number 64. According to the abovementioned book, the small businesses that existed in the Cyprus State were candy production shops, saltworks businesses, mills, tanneries, dyehouses, and soap shops. The candy production shops in Cyprus were located in Tokyovoli district in Baf County, and in Koloş and Piskopi were located in Limoson district. The ownership of the candy shops belonged to the state, and were run through fiduciary; and then as of 1593, they were run with the uphold system. The annual revenues of these candy shops were 380 000, and nearly all of the candy that were produced here were sent to Istanbul. The saltwork shops in Cyprus were four in number as three in Baf and one in Tuzla District. The one whose annual revenue was 1950 was located in Baf, the one with 500 annual revenues was located in Lenbe, which was connected to Baf in administrative terms, and Ayayorgi with 40 cash money was located in Isterpoti Hamlet. The other one with an annual revenue of 100 000 was located in Tuzla District. The salt that was produced in the Cyprus State was generally sent to Istanbul. The salt that was more than needed was exported to other countries.

According to the Cadastral Book, there were 206 mills in Cyprus which were distributed as follows; Lefkoşa (19), Mesarye (1), Karpas (6), Girne (8), Pendaye (44), Hırsofu (30), Baf (36), Evdim (15), Limason (37), Mazuto (9) and Tuzla (1). He annual revenue from the mills in Cyprus was 116 255 cash money. There were tanneries in all of the districts in the Cyprus State -except for Girne and Tuzla. There was one tannery in Lefkoşa, Magosa, Hırsofu, Evdim and Mazuto; two in Mesarye and Karpas; five in Pendaye and Baf; and seven in Limoson, which makes a total of 26 tanneries. The tanneries were run with the uphold system.

According to the Cadastral Book dated 1572, there were three dyehouses in Cyprus State, one of them was in Lefkoşa, the other one was in Magosa Fortress, and the last one was in the city center of Baf. The annual revenue of Lefkoşa Dyehouse was 1500; the revenue of the one in Magosa, which was also the dyehouse of the imperial dynasty, was 4500; and the revenue of the Baf dyehouse was 750 cash money. The dyehouses in Cyprus were run with the uphold system with contracts. It was determined that there were

two businesses that dealt with soap production in Cyprus State in the study period. They were run with the uphold system.

Keywords: Cyprus, Candy Shops, Tannery, Dyehouse, Mills.

SOCIAL ENGINEERING ATTACKS IN 21ST CENTURY: CASE OF TURKEY

Hüseyin Mahmutoğlu, Uğur Can Atasoy

By the advances in technology, the use of World Wide Web globalized and files shared through digital platforms, physical combat area shifted to online platform. During this online era there is a digital war in the background, both national along with individual attempts are in rise, and there is one platform, which provides a solution: cyber security. Hardware and software layers of the cyber security have their own combat in vulnerability-exploit-patch circle, but since the human being's structure is convenient to be deceived, the human is the weakest ring of the security chain. Social engineering attacks are two-way cyber weapons, therefore social engineering attack method's flexible structure gives opportunity to conduct attacks for both humans and digital systems, but basis of the social engineering attacks target directly human psychology and emotions. By manipulating the existing data or known information, social engineers attack to human nature's vulnerabilities in order to leak important data or access specific sessions. Since it takes a great amount of time to redound people's true accepted false habits with correct habits, there will always be vulnerabilities in a great percentage of users. Now in 21st century the social media accounts and e-government systems abusing by unauthorized people in order to hacking people with social engineering attacks. There are varieties of social engineering attacks in the digital field, some of them comprehended by the users but some of them not comprehended yet; this study will highlight the social engineering attacks' working mechanisms, categorize the attack methods along with emphasizing protection methods by giving recent incidents, which happened in Turkey.

Keywords: Social Engineering Attacks, Cyber Security, Data Leak Threats, Spear Phishing

SOCIAL WORK STUDENTS ATTITUDES TOWARD ELDERLY PEOPLE: SAMLE OF ANKARA UNIVERSITY

Ayşe Sezen Serpen, Eda Purutçuoğlu

In our country respect and loyalty to the elderly people is one of the fundamental social norms and these are influenced by religious and traditional attitudes. Due to the demographic changes perceptions and attitudes toward elderly people are becoming increasingly important. The aim of the study is to determine the attitudes of undergraduate students toward elderly people. Data were collected on students attending Ankara University Social Work Department. For measuring the attitudes, the scale developed by Kogan (10) was applied, and t-test was performed for finding out the differences dependent on gender. Findings of this research brings following issues to forward: Elder people need more affection and confidence than anybody else, except few cases elder people are found to be sympathetic, people gain experience as they gets older, making elder people feel sincere is difficult. Additionally, results of the study showed that female students have more positive attitudes towards elderly people than males' ($p<0.05$).

Keywords: Elderly, Ageism, Attitude, Undergraduate Students

SOCIOLOGICAL ANALYSIS OF EFFECTS OF GENDER PERCEPTION ON WOMEN HEALTH

M. Çağlar Kurtdaş

Sex is a concept used to describe biological differences between men and women. However, the differences between men and women are not only biologically. There are also differences in the social context between men and women. The concept of gender describes these differences. Gender also tells about the social differences that exist between men and women. Because, the phenomenon of gender creates an inequality in almost all societies. This inequality is generally against women. As a result, the woman is located at a lower level than the man. This inequality is also observed in the health field. As "being a woman" is valued less in the cultural direction, the life and health of a woman is negatively affected. This study aims to discuss the effects of gender inequality on women's health.

Keywords: Sex, Gender, Health, Inequality.

SOFT COMPUTING METHODS USED IN CONSTRUCTION MANAGEMENT ENGINEERING

Mohamed Bouabaz, Mourad Mordjaoui

In this paper, a review of different soft computing methods called intelligence artificial based on Neural Networks Approach (NNA) and Fuzzy Logic (FL) is discussed. These techniques were used in the field of Construction Management Engineering (CME) at the feasibility stage of projects for decision making. Data comes from historical record of projects were selected and used to train and test the proposed approaches. Results show the ability to build accurate models with relatively small errors margin.

Keywords: Artificial Neural Networks, Fuzzy Logic, Construction Management Engineering

SPECTROSCOPIC AND CALCULATED THERMODYNAMIC PROPERTIES OF 3-METHYL-4-[3-METHOXY-4-(4-METHYLSULFONYLOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

Hilal Medetalibeyoğlu, Songül Ulufer, Haydar Yüksek

In this study, novel 3-methyl-4-[3-methoxy-4-(4-methylbenzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one (3) was synthesized from the reaction of 3-methyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-one (1) with (3-methoxy-4-methylbenzenesulfonyloxy)-benzaldehyde (2). The titled compound was characterized by IR, 1H NMR and 13C NMR spectral data. This compound was optimized by using the B3LYP/6-31G(d) and HF/6-31G(d) basis sets (Frisch et al., 2009; Wolinski, Hilton & Pulay, 1990). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09 (Wolinski, Hilton & Pulay, 1990). Experimental and theoretical values were inserted into the grafic according to equatation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. IR absorption frequencies of this compound were calculated by two methods. The veda4f program was used in defining IR data which were calculated theoretically (Jamróz, 2004). Furthermore, thermodynamic parameters, geometric properties (bond angles, bond lengths and dihedral angles), electronic properties (total energy, dipole moment), the highest occupied molecular orbital (HOMO) and the lowest unoccupied molecular orbital (LUMO), Mulliken atomic charges of 3-methyl-4-[3-methoxy-4-(4-methylbenzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-

1H-1,2,4-triazol-5-one has been investigated by using Gaussian 09W program. The structural data of this compound have been calculated by using 6-31G(d) basis set with density functional method (DFT/B3LYP) and Hartree-Fock method (HF).

Keywords: 4,5-dihidro-1h-1,2,4-triazol-5-one, Giao, B3lyp, Hf, 6-31 G(d).

SPECTROSCOPIC AND THERMODYNAMIC PROPERTIES OF NOVEL 1-(4-METHYLPIPERAZINE-1-YL-METHYL)-3-BENZYL-4-(3-CINNAMOYLOXYBENZYLIDENEAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE

Haydar Yüksek, Murat Beytur

In this study, novel 1-(4-methylpiperazine-1-yl-methyl)-3-benzyl-4-(3-cinnamoyloxybenzyliden-amino)-4,5-dihydro-1H-1,2,4-triazol-5-one was synthesized by the reaction of 3-benzyl-4-(3-cinnamoyloxybenzylideneamino)-4,5-dihydro-1H-1,2,4-triazol-5-one with formaldehyde and N-methylpiperazine. The titled compound characterized by IR, 1H NMR and 13C NMR spectral data. The molecule was optimized by using the B3LYP/631G (d) and HF/631G (d) basis sets. 1H-NMR and 13C-NMR spectral data values were calculated according to GIAO method using Gaussian G09W program package in DMSO solvent. [Frisch et al., 2009. Gaussian Inc., Wallingford, CT.]. Experimental and theoretical values were inserted into the graphic according to equitation of δ exp=a+b. δ calc. The standard error values were found via SigmaPlot program with regression coefficient of a and b constants. Also, calculated IR data of compound were calculated in gas phase by using of 631G(d) basis sets of B3LYP and HF methods and are multiplied with appropriate adjustment factors. Theoretical infrared spectrums are formed from the data obtained according to B3LYP and HF methods. In the identification of calculated IR data was used the veda4f program. Furthermore, molecule's theoretical bond lengths, UV-Vis values, dipole moments, mulliken charges, HOMO-LUMO energies, total energy of the molecule, ionization potential, electron affinity, electronegativity and thermodynamic properties for both methods were calculated.

Keywords: 4,5-dihidro-1h-1,2,4-triazol-5-one, Giao, B3lyp, Hf, 6-31g(d)

"STEP TO STEP" IN DIAGNOSTIC OF RHEUMATOID ARTHRITIS

Olena Sulima

Rheumatoid arthritis (RA) is a long-lasting autoimmune disease that primarily manifestation affects joints. It typically results in warm, swollen, and painful joints. Rheumatoid arthritis is diagnosed "step to step" from a combination of things, including:

1. The location and symmetry of painful joints, especially the hand joints
2. Joint stiffness in the morning
3. Bumps and nodules under the skin (rheumatoid nodules)
4. Results of X-ray and blood tests

Most, but not all, people with rheumatoid arthritis have the rheumatoid-factor (RF) antibody in their blood. Rheumatoid factor may sometimes be present in people who do not have rheumatoid arthritis. Therefore, the diagnosis of rheumatoid arthritis is based on a combination of joint problems, as well as test results. A newer, more specific blood test for rheumatoid arthritis is the cyclic citrulline antibody test, also called anti-CCP. The presence of anti-CCP antibodies suggests a tendency toward a more aggressive form of rheumatoid arthritis. People with rheumatoid arthritis may have mild anemia. Blood tests may also

show an elevated erythrocyte sedimentation rate (ESR) or elevated C-reactive protein (CRP) levels, which are signs of inflammation. Some people with rheumatoid arthritis may also have a positive antinuclear antibody test (ANA), which indicates an autoimmune disease, but the test does not specify which autoimmune disease.

Keywords: Rheumatoid Arthritis, Diagnostic, “Step To Step”.

STRATEGIES FOSTERING DEVELOPMENT OF INNOVATIONS IN THE AREAS OF STEM

Anna Szemik-hojniak

Science and technology ensure the progress in all areas of human life. Prosperity of the country is strongly linked with a proper application of STEM (Science, Technology, Engineering and Mathematics) fields. To achieve this goal, highly educated specialists both men and women are needed. Often encountered difficulties in advancements of women scientists mean for the country an inadmissible misuse of human resources. Hence, the existing barriers that may inhibit and limit women's career development should be eliminated both through their academic knowledge, expertise and social empowerment. Since the science is a strategically important field, this, after a certain time will be converted into innovation and economic growth of the whole country. In this study, some best practices promoting science and encouraging young generation to be interested in the STEM fields will be presented. Additionally, activities of two global NGO organizations (INWES and INWES-ERI), partners of operational type with UNESCO, whose primary objectives are to advance education in the fields of STEM through different programs and projects will be analyzed.

Keywords: Education, Stem, Innovations, Women's Career, Inwes-eri

STRESS MANAGEMENT AND PROFESSIONAL IDENTITY DEVELOPMENT OF PRE-SERVICE TEACHERS THROUGH TEACHING TO AVATARS

Tugce Gul, John Pecore, Eric Greska

There is an increasing need and demand for pre-service teachers to develop a professional (teacher) identity, which is nurtured with pedagogical practices (Nykvist & Mukherjee, 2016). The immersive virtual environment technology (i.e., simulations) supports teacher practice in pedagogy and content with the benefit of facilitating teacher development without potentially harmful effects on students (Dieker, Hynes, Stapleton, & Hughes, 2007), such as stress. Stress for pre-service teachers during field experiences can make them less effective and hinder professional growth (Wadlington, Slaton, & Partridge, 1998). The purpose of this qualitative case study is to examine the impact of stress (i.e., its level and type), cope with strategies being reformed, and professional identity development of pre-service teachers as teaching in the virtual environment. Research participants consist of six pre-service teachers within a college of education at a university in the southeastern United States. The participants will teach lessons to avatar students in the virtual-reality simulator, and wear heart rate monitors to measure stress levels while practicing their lessons and while teaching in the field. The data will be obtained from semi-structured interviews with pre-service teachers, reflections on the discussion board and observation protocol. The preliminary findings will be presented to illustrate the relationship between pre-service teachers’ stress and professional identity formation. It is expected that the results provide innovative suggestions to

mentors, faculty supervisors, and school administrators to provide comprehensive support to pre-service teachers in overcoming stress factors as they navigate their teaching capacity through the many responsibilities required of them.

Keywords: Stress, Stress Management, Virtual Teaching Environment, Pre-service Teachers, Professional Identity Development

STUDENT'S ENGAGEMENT IN THE HIGHER EDUCATION QUALITY MANAGEMENT

Neli Merabishvili, Mzia Tsereteli

Almost all higher educational institutions create their own education quality management systems throughout the world, among them is Georgia. Higher educational institutions need to respond to the international standards and criteria of quality development. The education quality management is the internal and external assessment procedure; which implementation contribute to the quality increase of an institute. In our case, the quality assessment provides the education quality improvement at a higher educational institution. In the regulation of the European universities, the student's role is clearly defined and highlighted in the above-mentioned process. With the student's engagement, we mean the interaction of students and other resources of a university for the increase of educational result and the development of educational activities in order to improve the reputation of higher educational institution. Since Georgia joined the Bologna Process, Georgia has been obliged to share the European countries' experience and satisfy all the demands stated towards the country. Thus, it is important to study and implement the world's best practices of student's engagement in the education quality management process. During the research, we have learned the students' attitudes towards the education quality management department and its activities, how students are engaged in the quality management process, whether the mentioned department gives feedback to students, what students think about their role in the described process. The research was conducted in two Georgian and one Spanish universities. The interviews were done with students and representatives of education quality management department. The research showed that the students' attitudes towards their engagement and the relation between university administration's and students differ due to the university type (state, private). However, almost all of the students do not have any idea about the mentioned department; therefore, most of students do not participate in the education quality management activities at university.

Keywords: Education Quality Management, Student's Engagement, Higher Educational Institution

SUPPLIER SELECTION BASED ON FUZZY INFORMATION AXIOM

Selahattin Eyyupi Şentürk, Bahar Özyörük

When regarding today's globalized markets in context of technological developments, it seems the variations are very rapid and efficient and this rapidity and variations also bring along the uncertainty in requests. Under these conditions companies have to make mostly constituted bay cost related and strategically important decisions. Decisions affecting the quality, customer satisfaction and long term sustainability of the company are selection decisions and all of them has to be objective and effective. Generally supplier selection problems take place in complex problems category. In this study, for a company dealing with research and development projects, supplier selection problem is considered and the solution based on Axiomatic Design (AD) method is proposed. AD, one of the multi attribute decision methods (MADM), is applied to solve the supplier selection problem including both qualitative and quantitative factors at the same decision process. In this study, an application of selecting the supplier which has minimum information content among the alternative supplier firms by a hierarchical supplier selection model which is designed based on the important criteria for decision maker has done based on

the Information Axiom of AD. Since, all of the factors affecting supplier selection process can not be denoted by numerical values or quantitatively, because of the nature of these factors, the evaluation of the factors belonging to firms has been done by utilizing triangular fuzzy numbers and Fuzzy AD. Besides, regarding that factors have presidency with respect to each other Weighted AD has been used for evaluation and results of both methods have been compared. In this study, for a white-goods manufacturer, supplier selection problem is discussed and Axiomatic Design (AD) method is proposed for the solution of the problem. AD is one of the multi attribute decision methods (MADM) that can be used for the solution of the problems which require to be considered both qualitative and quantitative factors at the decision process.

Keywords: Supplier Selection, Axiomatic Design, Supply Chain Management

SYNTHESIS AND ANTIOXIDANT ACTIVITIES OF NEW 1-ACETYL-3-ALKYL(ARYL)-4-(3-ETHOXY-4-BENZENESULFONYLOXY)-BENZYLIDENAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Gül Özdemir, Özlem Gürsoy Kol, Haydar Yüksek

1,2,4-Triazole derivatives have drawn considerable attention for the past few decades because of their diverse biological properties. Many 1,2,4-triazole derivatives are found to be potent antioxidant, anti-inflammatory, antimicrobial and antiviral agents. The identification of triazoles and determination of their antibacterial activities are of considerable interest because of the role they play in pharmacological actions. This study was planned as two parts; in the first part five new 1-acetyl-3-alkyl(aryl)-4-(3-ethoxy-4-benzenesulfonyloxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) were synthesized by the reactions of 3-alkyl(aryl)-4-(3-ethoxy-4-benzenesulfonyloxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) (Özdemir, 2016) with acetic anhydride. The structures of five new compounds; 3-methyl-4-(3-ethoxy-4-benzenesulfonyloxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-one, 3-ethyl-4-(3-ethoxy-4-benzenesulfonyl-oxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-one, 3-benzyl-4-(3-ethoxy-4-benzenesulfonyloxy)benzyliden-amino-4,5-dihydro-1H-1,2,4-triazol-5-one, 3-p-methylbenzyl-4-(3-ethoxy-4-benzenesulfonyloxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-one and 3-p-chlorobenzyl-4-(3-ethoxy-4-benzenesulfonyloxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-one are established from the spectral data. In the second part of the study, the antioxidant properties of the compounds 2 were studied and evaluated using different three antioxidant assays; including reducing power, free radical scavenging and metal chelating activity. All of the compounds showed good metal chelating activities at the lowest concentration.

Acknowledgement: This work was supported by the Scientific Research Projects Coordination Unit of Kafkas University (Project Number: 2015-FM-53).

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis, Acetylation, Antioxidant Activity.

SYNTHESIS AND ANTIOXIDANT ACTIVITIES OF SOME NOVEL 2-[3-ALKYL (ARYL)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE-4-YL]-PHENOXYACETIC ACIDS

Esra Sinim, Mustafa Calapoğlu, Murat Beytur, Haydar Yüksek

1,2,4-Triazole derivatives are reported to possess a broad spectrum of biological activities such as antifungal, antimicrobial, hypoglycemic, antihypertensive, analgesic, antiparasitic, hypocholesteremic, antiviral, anti-inflammatory, antitumor and anti-HIV properties (Yüksek et al., 1997). In this study, nine novel 2-[3-alkyl(aryl)-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl] phenoxyacetic acids (2) were obtained by the reactions of 3-alkyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with 2-formylphenoxy acetic acid (Sinim 2015). The titled compounds were characterized by using 1H-NMR, 13C-NMR and IR spectral data

together with elemental analysis. The antioxidant properties of the synthesized novel compounds were analyzed and evaluated using three antioxidant assays, including reducing power, free radical scavenging and metal chelating activity. For the measurement of the reductive ability, Fe3+-Fe2+ transformation was investigated in the presence of compound using by the method of Oyaizu (1986). The hydrogen atoms or electrons donation ability of the synthesized compound was measured by DPPH. using the method of Blois (1958). The chelating effect of ferrous ions by the compound was determined according to the method of Dinis, Madeira & Almeida (1994). BHT, BHA, EDTA and α-tocopherol were used as reference antioxidant compounds.

Acknowledgement: This work was supported by the Scientific Research Projects Coordination Unit of Suleyman Demirel University (Project Number: 3751-YL2-13).

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis, Antioxidant Activity

SYNTHESIS AND ANTIOXIDANT STUDIES OF SOME NEW [2-METHOXY-6-(3-ALKYL/ARYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE-4-YL)-AZOMETHIN]PHENYL PHENYLACETATES

Muzaffer Alkan, Abdurrahman Gürbüz, Murat Beytur, Sevda Manap, Özlem Gürsoy Kol, Prof.dr. Haydar Yüksek

Design and synthesis of novel small molecules can play specifically a protective role in biological systems and in modern medicinal chemistry. In this study, 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) reacted with 2-phenylacetoxy-3-methoxybenzaldehyde (2) to synthesize corresponding some new [2-methoxy-6-(3-alkyl/aryl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetates (3). The newly synthesized seven compounds; [2-methoxy-6-(3-methyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate, [2-methoxy-6-(3-ethyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate, [2-methoxy-6-(3-n-propyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate, [2-methoxy-6-(3-benzyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate, [2-methoxy-6-(3-p-methylbenzyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate, [2-methoxy-6-(3-p-chlorobenzyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate and [2-methoxy-6-(3-phenyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate were characterized using by IR, 1H-NMR, 13C-NMR and UV spectral data. In addition, the synthesized compounds were analyzed for their in vitro potential antioxidant activities in three different methods. The investigation of antioxidant properties screening data revealed that especially compound [2-methoxy-6-(3-methyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)-azomethin]phenyl phenylacetate demonstrates a marked capacity for iron binding activity.

Keywords: 1,2,4-triazol-5-one, Synthesis, Antioxidant Activity.

SYNTHESIS AND CHARACTERIZATION OF NEW DI-[2-(1-ACETYL-3-ALKYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE-4-YL)AZOMETHIN-6-ETHOXY]PHENYL TEREPHTALATES

Haydar Yüksek, Faruk Kardaş, Özlem Gürsoy Kol

For the past few decades, 1,2,4-triazole derivatives have drawn considerable attention because of their diverse biological properties. Many 1,2,4-triazole derivatives are found to be potent antioxidant, anti-inflammatory, antimicrobial and antiviral agents. In this study, six new di-[2-(1-acetyl-3-alkyl-4,5-dihydro-

1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephtalates were synthesized by the reactions of di-[2-(3-alkyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephtalates (Kardaş et al., 2016) with acetic anhydride. The structures of six new compounds; di-[2-(1-acetyl-3-methyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl tere-phthalate, di-[2-(1-acetyl-3-ethyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephthalate, di-[2-(1-acetyl-3-n-propyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephthalate, di-[2-(1-acetyl-3-benzyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephthalate, di-[2-(1-acetyl-3-p-methylbenzyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephthalate and di-[2-(1-acetyl-3-p-chlorobenzyl-4,5-dihydro-1H-1,2,4-triazol-5-one-4-yl)azomethin-6-ethoxy]phenyl terephthalate; are established from the spectral data.

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis.

SYNTHESIS AND CHARACTERIZATION OF SOME NOVEL 3-ALKYL(ARYL)-4-(3-METHOXY-4-CINNAMOYLOXY)-BENZYLIDENAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Haydar Yüksek, Sevda Manap, Songül Ulufer, Bahar Bankoğlu, Buket Göksu

1,2,4-Triazole and 4,5-dihydro-1H-1,2,4-triazol-5-one derivatives are reported to possess a broad spectrum of biological activities such as antifungal, antimicrobial, hypoglycemic, antihypertensive, analgesic, antiparasitic, hypocholesteremic, antiviral, anti-inflammatory, antitumor and anti-HIV properties far (Yuksek et al., 1997). In the present study, 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones reacted with 3-methoxy-4-cinnamoyloxybenzaldehyde, which were synthesized by the reaction of 3-methoxy-4-hydroxybenzaldehyde with cinnamoyl chloride by using trimethylamine, to obtain nine novel 3-alkyl(aryl)-4-(3-ethoxy-4-cinnamoyloxy)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones (Göksu, Bankoğlu, Ulufer, 2012). These new compounds were characterized by IR, 1H NMR, 13C NMR and UV spectral data.

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis.

SYNTHESIS AND CHARACTERIZATION OF SOME NOVEL 3-ALKYL(ARYL)-4-[3-(NAPHTHALENE-2-SULFONYLOXY)-4-METHOXY]-BENZYLIDENAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Haydar Yüksek, Feyzi Sinan Tokali, Fevzi Aytemiz

In the present study, nine novel 3-alkyl(aryl)-4-[3-(naphthalene-2-sulfonyloxy)-4-methoxy]-benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones were synthesized from the reactions of the corresponding 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones with 3-(naphthalene-2-sulfonyloxy)-4-methoxybenzaldehyde which was obtained from the reaction of 3-hydroxy-4-methoxybenzaldehyde with naphthalene-2-sulfonyl chloride by using triethylamine. The starting compounds 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones were prepared from the reactions of the corresponding ester ethoxycarbonylhydrazones with an aqueous solution of hydrazine hydrate as described in the literature (Ikizler & Un 1979, Ikizler & Yuksek 1993). The new compounds synthesized were characterized by using IR, 1H-NMR and 13CNMR spectral data.

Keywords: 4,5-dihydro-1h-1,2,4-triazol-5-one, Schiff Base, Synthesis.

SYNTHESIS AND CHARACTERIZATION OF SOME NOVEL DI-{2-METHOXY-4-[(3-ALKYL-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ON-4-YL)-AZOMETHINE]PHENYL} ADIPATES

Haydar Yüksek, Sevda Manap

1,2,4-Triazole derivatives are reported to possess a broad spectrum of biological activities such as antifungal, antimicrobial, hypoglycemic, antihypertensive, analgesic, antiparasitic, hypocholesteremic, antiviral, anti-inflammatory, antitumor and anti-HIV properties (Yüksek et al., 1997). In the present study, nine novel di-{2-methoxy-4-[(3-alkyl-4,5-dihydro-1H-1,2,4-triazol-5-on-4-yl)-azomethine]phenyl} adipates were synthesized from the reactions of 3-alkyl-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones with di-(2-methoxy-4-formylphenyl) adipate, which was obtained from the reaction of 3-methoxy-4-hydroxybenzaldehyde with adipoyl chloride by using triethylamine. The starting compounds 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones were prepared from the reactions of the corresponding ester ethoxycarbonylhydrazones with an aqueous solution of hydrazine hydrate as described in the literatüre (Ikizler & Un, 1979; Ikizler & Yuksek, 1993). The new compounds were characterized by using IR, 1H-NMR and 13C-NMR spectral data.

Keywords: Schiff Base, 1,2,4-triazol-5-one, Synthesis, Characterization

SYNTHESIS AND IN-VITRO ANTIOXIDANT ACTIVITIES OF SOME NOVEL 1-ACETYL-3-ALKYL(ARYL)-4-[4-(4-METHOXYBENZOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Haydar Yüksek, Hilal Medetalibeyoğlu

Antioxidants are extensively studied for their capacity to protect organism and cell from damage that is induced by the oxidative stress. A great deal of research has been devoted to the study of different types of natural and synthetic antioxidant. A large number of heterocyclic compounds, containing the 1,2,4-triazole ring, are associated with diverse biological properties such as antioxidant, anti-inflammatory, antimicrobial and antiviral activity. Exogenous chemicals and endogenous metabolic processes in human body or in food system might produce highly reactive free radicals, especially oxygen derived radicals, which are capable of oxidizing biomolecules by resulting in cell death and tissue damage. Oxidative damages play a significantly pathological role in human diseases (McClements &Decker, 2000). In this study, firstly five novel 1-acetyl-3-alkyl(aryl)-4-[4-(4-methoxybenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) were synthesized by the reactions of 3-alkyl(aryl)-4-[4-(4-methoxybenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with acetic anhydride. In order to identify new compounds synthesized in the study, spectroscopic methods including IR, 1H-NMR, 13C-NMR and UV were used. In the second part of the study, antioxidant activities of the newly synthesized compounds were screened using different antioxidant methodologies: free radical scavenging activity (Blois, 1968), reducing power activity (Oyaizu, 1986) and metal chelating activity (Dinis, Madeira & Almeida, 1994).

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis, Antioxidant Activity.

SYNTHESIS AND POTENTIOMETRIC TITRATIONS OF 2-METHOXY-4-[(3-ALKYL(ARYL)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ON-4-YL)-AZOMETHINE]PHENYL IZOBUTYRATES

Sevda Manap, Haydar Yüksek

In the present study, nine novel 2-methoxy-4-[(3-alkyl(aryl)-4,5-dihydro-1H-1,2,4-triazol-5-on-4-yl)-azomethine]phenyl izobutyrates were synthesized from the reactions of the corresponding 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones with 4-formyl-2-methoxyphenyl izobutyrate, which was obtained from the reaction of 4-hydroxy-3-methoxybenzaldehyde with izobutyryl chloride by using triethylamine. The new compounds synthesized were characterized by using IR and 1H-NMR, 13C-NMR spectral data. The second part of the study, nine novel 2-methoxy-4-[(3-alkyl(aryl)-4,5-dihydro-1H-1,2,4-triazol-5-on-4-yl)-azomethine]phenyl izobutyrates were titrated potentiometrically with TBAH (tetrabutylammonium hydroxide) in four different non-aqueous solvents (isopropyl alcohol, tert-butyl alcohol, acetone and N,N-dimethylformamide) and graphs were drawn for all cases. The half notralization potentials and pKa values were determined by half neutralization method. The effects of solvents and molecular structure upon acidity were also discussed (Ocak, 2003).

Keywords: Synthesis, Characterization, Tbah, Pka, Half-neutralization Method.

SYNTHESIS OF NEW 1-(MORPHOLINE-4-YL-METHYL)-3-ALKYL(ARYL)-4-[3-ETHOXY-4-(BENZENESULFONYLOXY)-BENZYLIDENAMINO]-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Haydar Yüksek, Gül Özdemir, Özlem Gürsoy Kol

Considering about the development of new hetero moieties by combining potential biological active scaffolds, an attempt was made here to obtain 1,2,4-triazoles bearing morpholine ring. In this regard, 3-alkyl(aryl)-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) reacted with formaldehyde and morpholine to afford 1-(morpholine-4-yl-methyl)-3-alkyl(aryl)-4-[3-ethoxy-4-(benzenesulfonyl-oxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones (2). The structures of six new Mannich bases; 1-(morpholine-4-yl-methyl)-3-methyl-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one, 1-(morpholine-4-yl-methyl)-3-ethyl-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one, 1-(morpholine-4-yl-methyl)-3-benzyl-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one, 1-(morpholine-4-yl-methyl)-3-p-methylbenzyl-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one, 1-(morpholine-4-yl-methyl)-3-p-methoxybenzyl-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one and 1-(morpholine-4-yl-methyl)-3-p-chlorobenzyl-4-[3-ethoxy-4-(benzenesulfonyloxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one were established from the spectral data. The starting compounds 1 were prepared according to Özdemir (2016).

Keywords: 1,2,4-triazol-5-one, Schiff Base, Synthesis.

SYNTHESIS OF SOME NEW 1-(MORPHOLINE-4-YL-METHYL)-3-ALKYL(ARYL)-4-(4-ETHYLBENZYLIDENAMINO)-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Gül Kotan, Haydar Yüksek

In this study, 3-alkyl(aryl)-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones were synthesized from the reactions of 3-alkyl(aryl)-4-amino-4,5-dihydro-1H-1,2,4-triazol-5-ones with 4-ethylbenzaldehyde described in the literature (Kemer, 2007). 3-Alkyl(Aryl)-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones reacted with formaldehyde and morpholine to afford 1-(morpholine-4-yl-methyl)-3-alkyl(aryl)-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-ones. Thus, five new

Mannich Bases (3-ethyl-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one, 3-benzyl-4-(4-ethylbenzyliden-amino)-4,5-dihydro-1H-1,2,4-triazol-5-one, 3-(p-methylbenzyl)-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one, 3-(p-chlorobenzyl)-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one and 3-phenyl-4-(4-ethylbenzylidenamino)-4,5-dihydro-1H-1,2,4-triazol-5-one) were synthesized. The structures of these compounds were established from, IR, 1H NMR and 13C NMR spectral data.

Keywords: Mannich Base, Synthesis, 4,5-dihydro-1h-1,2,4-triazol-5-one

SYNTHESIS, CHARACTERIZATION AND ANTIOXIDANT ACTIVITIES OF NEW 1-(2,6-DIMETHYLMORPHOLINE-4-YL-METHYL)-3-ALKYL(ARYL)-4-(4-DIMETHYLAMINO)BENZYLIDENAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONES

Özlem Gürsoy Kol, Sevda Manap, Feyzi Sinan Tokali, Murat Beytur, Haydar Yüksek

Antioxidants are extensively studied for their capacity to protect organism and cell from damage that is induced by the oxidative stress. A great deal of research has been devoted to the study of different types of natural and synthetic antioxidant. A large number of heterocyclic compounds, containing the 1,2,4-triazole ring, are associated with diverse biological properties such as antioxidant, anti-inflammatory, antimicrobial and antiviral activity. In the present study, due to a wide range of applications to find their possible antioxidant activity, seven new 1-(2,6-dimethylmorpholine-4-yl-methyl)-3-alkyl(aryl)-4-(4-dimethylamino)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones (2) were synthesized from the reactions of 3-alkyl(aryl)-4-(4-dimethylamino)benzylidenamino-4,5-dihydro-1H-1,2,4-triazol-5-ones (1) with formaldehyde and 2,6-dimethylmorpholine. 1 Type compounds were synthesized according to Bahçeci et al. (2002). The titled compounds characterized by IR, 1H NMR and 13C NMR spectral data. In the second part of the study, the antioxidant properties of the compounds 2 were studied and evaluated using different three antioxidant assays; including reducing power, free radical scavenging and metal chelating activity. All of the compounds showed good metal chelating activities.

Keywords: 1,2,4-triazol-5-one, Mannich Base, Synthesis, Antioxidant Activity.

TEACHER METAPHORS OF MATHEMATICS TEACHER CANDIDATES'

Ali Kiş, Ismail Şan

It can be said that the use of images instead of words in the process of communication may improve the perception of receivers, and the use of a metaphor instead of many pictures has increased this effect much more. If a picture is worth a thousand words, a metaphor is worth a thousand pictures. Metaphors are used to describe a concept, a phenomenon, or an event using a well-known concept, phenomenon, or event when explanation or analogy is needed. The most intensive relationships of the educational environment are experienced between the teacher and the student. Therefore, the use of metaphor for teacher perception may contribute to a better understanding of this intense relationship. The main purpose of this research is to reveal the perceptions that mathematics teacher candidates have about the concept of "teacher" by using metaphors. The study group of the research is 77 students who attended İnönü University Faculty of Education Primary School Mathematics Teaching Program and taking "Instructional Principles and Methods" course in Fall Semester of 2016-2017 education year. The data of the study was obtained using incomplete sentences completed by each and every student: "Teacher is like

.....; because ... " or " Teacher is similar to .....; because ..... ". Content analysis is used in the analysis and interpretation of the data.
The data analysis process of the research is ongoing. Writing full text of the proceeding will follow this stage. If the proceeding is accepted for presentation in the congress, the results will be shared with the congress participants.

Keywords: Metaphor, Teacher, Teacher Candidate

TEACHER PERSPECTIVE ON TRANSITION FROM BASIC EDUCATION TO SECONDARY EDUCATION

Ismail Şan, Bali Tabur, Ali Kiş

Transition from Basic Education to Secondary Education system (called TEOG in Turkey) has been used since 2013-14 education year in Turkey. TEOG has emerged due to some reasons such as adapting the transition system to curricula, reducing the out-of-school institution necessity and nonattandance count of students, etc. According to exam statistics, TEOG's results are higher than precedes. This can be an indicator for success of TEOG. However, on the other side, the scores reached at international assessment studies such as PISA and TIMSS show that this success just an illusion. Studies about TEOG (Atilla & Özeken, 2015; İnci, 2014; Çakmak& Aslan, 2016) argues that TEOG has some deficits like lack of content validity and rising pressure of parents on teachers assessment behaviour. The purpose of this study is to determine the teachers perspective on TEOG. The data of the research has not been collected yet. Full text writing of the research will be completed after analysis. If the proceeding is accepted for presentation, the results will be shared with the congress participants.

Keywords: Assessment And Evaluation, Teachers, Middle School

TEACHERS' PERCEPTIONS OF THE MOST COMMON DSM-V SYMPTOMS OF ADHD AMONG ARAB ELEMENTARY STUDENTS

Nihad Massalha

Teachers, in their daily job meet students from different socio-economic status. Some students have different behavioral disorders. This study focuses on the investigation of the ADHD symptoms among students. The aim of this study is to find out which ADHD diagnostic criteria described by the DSM-V are the most common among elementary students. The research sample includes 213 elementary school teachers who were asked to complete a questionnaire about their students' behaviors. The questionnaire presents the diagnostic criteria for detecting ADHD according to the DSM-V annual. A quantitative method based on the statistical package for social silences - SPSS was used in order to analyze the results. The findings indicate high level of confusion and difficulties of teachers in identifying the students diagnosed as ADHD. It was found that a large number of students who are not diagnosed as ADHD were identified by teachers as having ADHD. In addition, some students were diagnosed as ADHD, had lower scores than regular students. The results indicate the difficulty of teachers to give accurate diagnostic information about students with ADHD. Further results will be discussed at the conference.

Keywords: Adhd, Diagnosisi of Adhd, Teachers' Perception

TEACHING THE FUNDAMENTAL THEOREM OF ARITHMETICS TO PROSPECTIVE PRIMARY SCHOOL TEACHERS BY DESIGNING A MOBILE GAME

Mustafa Gök, Mevlüt Inan, Kamil Akbayir

In recent years, there has been a growing interest in learning situations and activities involving mobile games. One example of these is the teaching of mathematics through mobile games. Mobile games offer students an environment in which they can structure and use mathematical concepts in an enjoyable manner, while also providing a new perspective to teachers and prospective teachers on how mathematics can be taught in different learning settings. The purpose of this study was to teach the fundamental theorem of arithmetic, a mathematical concept, to prospective primary school teachers by using a mobile game designed by the researchers. This work was supported by Research Fund of the Yuzuncu Yil University. Project Number: SBA-2017-5256. Researchers used the android studio game development environments to create this game. A-didactic situation, which is one of the basic components of the Theory of Didactical Situations (TDS), was used to design the game according to the requirements of mathematics education. The study design was based on the qualitative study method. Study participants included 24 prospective primary school teachers (15 male and 9 female) attending a public university in Turkey. A pilot study was performed by initially applying the game designed by the researchers to two prospective primary teachers. Based on the results of the pilot study, a number of changes were made on the game, which included visual design changes, resolving certain technical problems, and adding a button for passing to other stages of the game. The mobile game was then applied to two different groups separately. The first group consisted of 12 persons (5 females and 7 males) who used the game for 40 minutes, while the second group consisted of 12 persons (10 girls and 2 boys) who used the game for 50 minutes. During the application of the mobile game, data were collected by recordings the activities with a video camera and digital voice recorder. Data analysis was performed according to the phases prescribed by the DDT. Analysis results showed that a mobile game created within the frame of the TDS can be effectively used to create an environment where prospective primary teachers can acquire an understanding of a mathematical concept such as the fundamental theorem of arithmetics. Using such mobile games in educating prospective teachers is important not only for their professional development, but also for raising awareness on how they may benefit from technological tools.

Keywords: Theory Of Didactical Situation, A-didactical Situation, Milieu, Mobil Game, Preservice Teachers

TEXT MINING FOR EFFICIENT PROJECT EVALUATION

Yousef Abuzir

In nowadays, there is a vast amount of the unstructured documents generated by project partners. These unstructured documents cannot be used in direct processing to extract useful information or knowledge. In this work, we propose text mining techniques for the evaluation of the progress in a project. The most straightforward approach is looking for the enrichment of the vocabulary, the casual and condition relations, and the structure of the terms in the development phases of the RUFO project. In our paper, we used text mining and the structure of the vocabularies as a tool to measure the success and the progress in the project. It is important to evaluate the effectiveness and efficiency of our approach. The experimental results illustrate an overall performance of project evaluation. By looking into the number of indexing terms, the causal relations and the positive conditional relations, and levels of hierarchical structure of the terms there is an evidence from this research that the vocabulary enrichment had an impact on partner's evaluation ability.

Keywords: Project Management, Statistical Evaluation, Text Mining, Indexing

THE ANALYSIS OF MATHEMATICS AND ARTS THEMED STUDIES IN TURKEY

Ali Özgün Özer, Işikhan Uğurel

In this study, it is aimed to examine the studies done in mathematics and art fields in Turkey and to determine their trends. For this purpose, a descriptive survey model was used. Criteria sampling method was used when the sample of the work was determined. The criterions were that the works were made in Turkish and that they were published in peer-reviewed journals between the years 2000 and 2016, both in mathematics and in arts. Dissertations and proceedings are not included. In the direction of these criteria, the sample is composed of 36 articles. A form was created by researchers as a data collection tool. This form includes research group, year, purpose, method, model, sample, type of work, data collection tool, art branches related to mathematics, mathematics subjects related to art branches, work theme and results. For each article in the sample, the form was created and analyzed descriptively. Mathematical and art themed studies were first introduced in 2002. In recent years, the number of studies conducted in these areas has increased and studies have been conducted mostly in 2013. In most of the articles, research method, model and sample are not specified. Among the branches of art to be studied are digital arts, handicrafts, caricature, architecture, music, origami and paintings. These arts branches have been associated with both primary and secondary school mathematics. It has been observed that there are a large number of studies that reveal the relationship between music and mathematics, and that geometric concepts are often dealt with as a matter of mathematics. It is thought that this study will lead the educators who want to associate mathematics courses with art branches. It is suggested that researchers conduct studies that will reveal more concrete relation between arts branches and mathematics subjects.

Keywords: Mathematics, Mathematics and Art, Mathematics And Art Relation, Mathematics Education, Content Analysis.

THE ASSESSMENT OF THE PATHOGENICITY OF CLINICAL C. MALONATICUS STRAINS BASED ON THE TISSUE CULTURE INVESTIGATIONS

Abdlrhman Alsonosi, Stephen Forsythe

The Cronobacter malonaticus is a member of the genus Cronobacter which is considered an opportunistic pathogen. The significance of C. malonaticus has recently increased since it was documented to be involved in several serious neonatal infections. However, the virulence factors of C. malonaticus including their ability to adhere, invade and overcome host barriers have been studied before. Unlike previous Cronobacter research, this study is mainly focused on C. malonaticus and is aimed to investigate its virulence characteristics that enable this species to cause adult and neonatal infections. Our data showed that the clinical C. malonaticus showed an ability to adhere and invade Caco-2, HBMEC, A549 and T24 cell lines. Moreover, the result shows that certain strains of C. malonaticus (including 1827 and 2018) were able to persist well into macrophages. However, ST7 strains 1827 and 2018 proved to be the most invasive strains among all used strains. The CDC strain 1569 (ST307) which was isolated from the blood of a fatal neonatal case showed also significant results in this study as it was able to invade all used human cells and survive and replicate within microphages.Finally, the findings of this study confirm the potential ability of C. malonaticus to cause serious infections in neonates or adults such as necrotising enterocolitis, meningitis, bacteremia, pneumonia and urinary tract infection.

Keywords: Cronobacter Malonaticus, Caco-2, Hbmec, A549, T24, Microphages

THE CHEMICAL BASIS FOR METHOD OF DIFFERENTIATION OF THE NEOPLASTIC AND INFLAMMATORY DISEASES OF COLON

Olena Sulima, Volodymyr Sulyma

Malignant cell has altered concentration of intracellular ions of NA+, K+, and Cl- respect to normal cell. Intracellular sodium is elevated while potassium is depressed. Investigation of this question in urothelial carcinomas revealed the average intranuclear sodium content increased more than three-fold, the potassium content decreased from 32 to 13%, and the chloride level increased too. The Na+/K+ ratio were more than five-fold higher in the cancer cells. The possible mechanism is an abnormal activity of the Na/K-ATPase, as well as an abnormally active NA+, K+, Cl- co-transport systems. It is not known when during initiation and development of cancer such changes may occur. The research of experimental colon cancer demonstrates alterations occur in the Na+/K+-pump in premalignant mucosa months before gross tumours develop, and these changes may partially explain the altered levels of Na+ and K+ in the cytoplasm of pre-malignant and malignant colonocytes. If malignant cell characterised by imbalanced electrolytes content, there are data suggested that transcription of a gene coding for the 35S RNA can be regulated via alteration of the intracellular Na+/K+ ratio. So-called cationic mechanism of regulation of transcription determines the time and sequence of stimulation of certain genes during the course of the cell cycle and that it accounts for transcription of normally repressed genes as a result of malignant transformation. Difference in the concentration of intracellular microelements can be helpful for diagnosis of the colon malignancies in time of colorectal surgery. Early diagnosis allows making a decision regarding the extension of the colon resection. The method uses the phenomenon of photoelectric effect. Irradiation of the tissue sample by the mini-γ-quantum induces lost of negative charge by cells thereby creating the photoelectric effect that will strictly individual for neoplastic and non-neoplastic tissues. Time of using 60 sec, irradiation non-dangerous for patients and medical personal.

Keywords: Chemical, Differentiation, Neoplastic, Inflammation

THE DESIGN OF CYRILLIC-LATIN CONVERTER FOR TATAR LANGUAGE

Andrey Danilov, Leila Salekhova

The research is relevant due to urgency of development the software product that allows transliterating Cyrillic texts during the process of work in non-Russified media. The transliteration implies the translation of message written in different alphabetical system to Latin script. Usually the set of transliteration rules is based on the compliance between letters of two alphabets. However, the process of transliteration of natural languages is more complicated. Researches and developers take into account the phonetical aspect of transliteration to keep the natural sounding of words. Tatar language is a Turkic language spoken by Volga Tatars mainly located at modern Tatarstan. Modern Tatar language uses the Cyrillic script, whereas vast majority of Turkic languages uses Latin script. We describe the process of development the software that allows converting the text messages written in Tatar language from Cyrillic to Latin script. The principles of converting are based on etymological approach. The program includes two methods of transliteration. If algorithm recognizes that the word under processing is the native Tatar word, then it uses phonetical method of converting. Otherwise it uses the simplified method of transliteration. The most challenging part of our work is the development the methods of recognizing the origin of words. We suggested the different determination methods such as n-gram frequency analysis, combined analysis and brute-force search. The current version of software allows converting native Tatar words from Cyrillic to Latin script.

Keywords: Transliteration, Cyrillic, Latin, Converter, Tatar, Russian

THE EFFECT OF EDUCATIONAL GAME METHOD ON STUDENTS' ACADEMIC ACHIEVEMENT AND ATTITUDES TOWARDS SCIENCE COURSE

Şeyma Çaliklar, Emre Yildiz, Özlem Ağgül, Ümit Şimşek, Yasemin Koç

The aim of this study is to determine the effect of educational game method on 6th grade students' academic achievement and attitudes towards science course in "Conduction of Electricity" unit. The sample of this study consist of 24 students from EGMG and 24 students from PBLG, totally 48 students from two different 6th grade classes of a secondary school in Ağrı. Pre- and posttest with control group of quasi-experimental design was used in this study. As the data collection instruments Academic Achievement Test (AAT) and Attitude towards Science Course Scale (ASCS) was implemented as pre- and posttest. Independent samples t- test was used for the data analyzes. Before implementation, it was seen that there was not a statistically significant difference between EGMG and PBLG's AAT and ASCS pretest average scores ($p>0.05$). After implementation, there was a statistically significant difference between EGMG and PBLG's average scores in favor of EGMG ($p<0.05$).

Keywords: Educational Game, Science Attitude, Academic Achievement

THE EFFECT OF JIGSAW AND ASK TOGETHER LEARN TOGETHER METHOD ON UNDERGRADUATE STUDENTS' ACADEMIC ACHIEVEMENTS AND VIEWS ABOUT METHOD

Selçuk Ilgaz, Şeyma Çaliklar, Emre Yildiz, Ufuk Şimşek

The aim of this study is to determine the effect of Jigsaw and Ask Together Learn Together (ATLT) method on social studies undergraduate students' academic achievement and views about method. The sample of this study consisted of 105 2nd grade undergraduate students taking Citizenship Course in two different classes in department of Social Studies Teacher Education at Atatürk University and they were implemented Jigsaw (n=52) and Ask Together Learn Together (ATLT) (n=53) methods. In this study was used quasi-experimental method. As data collection instruments Academic Achievement Test (AAT) was implemented as pretest and posttest in two groups in order to determine the effect of methods. Furthermore Jigsaw Method View Scale (JMVS) and ATLT Method View Scale (AMVS) were used after the implementation in order to determine the undergraduate students' views about methods. Independent samples t test were used in order to analyze the data which obtained AAT and in the parts of JMVS and AMVS that Likert Type. For analyze open-ended questions in JMVS and AMVS were used frequencies and percentages. According to data analysis of AAT, there were increase in average scores but there was not a statistically significant difference between Jigsaw and ATLT groups. According to average scores of method view scales there is a significant difference in favor of Jigsaw Group. Results of open-ended questions' answers about methods were similar. There were similar positive statements in both groups such as increase in self confidence, development of communication skills and positive change in perspective on teamwork. On the other hand there were similar negative statements in both groups such as irresponsibility of groupmates, unfavourable environment and insufficient time for implementation of the method.

Keywords: Cooperative Learning, Jigsaw, Ask Together Learn Together, The 1982 Constitution Of Turkey

THE EFFECT OF MORPHOLOGICAL STRUCTURE AND PHONOLOGICAL AWARENESS ON TYPES OF ERRORS IN READING IN ARABIC AND HEBREW

Nihad Massalha

This study examines the relation between the morphological structure of the word and the type of the difficulties in reading. Two different languages "Arabic and Hebrew" were chosen to the purpose of this study. The morphological structure of the two languages is different (details will be presented at the conference). The purpose of this study is to diagnose the type of reading difficulties in both languages (Arabic - Hebrew), and to examine whether the type of difficulty is related to the morphological structure of the word (language) or not. The study involved a sample of 88 dyslexic pupils from the Arab sector (range between third and sixth graders). Their second language is Hebrew. Data was collected by conducting interviews with their special education teachers for Arabic and Hebrew. To analyze the data we used qualitative research and content analysis. The findings indicate different types of reading difficulties among pupils, between the two languages and emphasize the influence of the morphological structure of the word on reading. Reading errors associate with visual data perception and processing of the morphological structure of the word, where more common errors occurring during reading Arabic language. While errors associated with difficulties in phonological perception and processing, were common errors in both languages. Additional analysis and findings will be presented at the conference.

Keywords: Morphological Structure, Phonological Awareness, Types Of Reading Errors

THE EFFECT OF PROBLEM SOLVING SKILLS AND RESILIENCE TO THE MARITAL ADJUSTMENT IN OLD AGES

Ayşe Sezen Serpen, Alp Çağlan Maçkan

This work was conducted on the 210 elderly members of the Ankara Metropolitan Municipality – Elderly Services Center which serves to approximately 32,000 elders in 7 towns, whose problem solving abilities and resilience effects were to be studied on their marital adjustments of those who are currently married and have been registered in the last decade to the Ankara Metropolitan Municipality – Elderly Services Center. In order to determine the problem solving abilities and resilience of the participants, the Interactional Problem Solving Inventory" (Lange et al., 1991) and "Connor-Davidson Resilience Scale" (Connor & Davidson, 2003) have been used in the research, which were adapted to the Turkish language by Maçkan (2014). In order to measure the cohesion levels of the spouses, the "Dyadic Adjustment Scale" was used consisting of 32 articles, developed by Spanier (1976) and adapted to Turkish by Fışıloğlu & Demir (2000). In consequence of the research, when analyzing the dual and partial correlations between the predictor variables and marital adjustment, problem solving skills (p

Keywords: Old Age, Marriage, Marital Adjustment, Problem Solving Abilities, Resilience

THE EFFECT OF PROSPECTIVE TEACHERS' ATTITUDES TOWARDS NATURE OF SCIENCE ON THEIR PROBLEM SOLVING AND CRITICAL THINKING SKILLS

Murat Çetinkaya

The most important role in reflecting science and technology to education system falls on teachers. Teachers' comprehending the nature of science in the best way will affect the instructional program they will use and their teaching strategies. Teachers' guiding students about the nature of science and scientific knowledge and guiding students to scientific initiatives will influence students' success and thus the education system positively. Problem solving skills and critical thinking skills of a student who understands and internalizes the nature of science will also develop positively. The more equipped teachers are, the easier it will be for them to reflect this to students. The purpose of this study is to research prospective teachers' attitudes about the nature of science on their problem solving and critical thinking skills comparatively. The study was designed as a comparative case study. The sample of the study consists of final year undergraduate students studying at Ordu University, Faculty of Education, departments of primary school teaching (N=34), mathematics teaching (N= 35) and science teaching (N=32). The nature of science lesson is in the curriculum of science teaching and primary school teaching departments, while it is not in the curriculum of mathematics teaching department. As data collection tools, the scale for problem solving skills which had 35 items and Cronbach's alpha internal consistency of .70 and the scale for critical thinking skills which had 51 items and Cronbach's alpha internal consistency of .88 were used. The data obtained were studied comparatively for the three different departments by using one way Anova. As for the data analysis of the study, the effects of prospective teachers' attitudes for the nature of science on their problem solving and critical thinking skills will be evaluated. To what extent prospective teachers have such skills will be important in their future professional lives. In addition, it will also be possible to find out how effective the lesson of nature of science is in developing such skills.

Keywords: Nature Of Science, Problem Solving Skills, Critical Thinking Skills, Attitude.

THE EFFECT OF USE OF LEGOS AT TEACHING OF SIMPLE MACHINES IN ELEMENTARY EDUCATION TO THE SUCCESS OF STUDENT

Sibel Açişli

In the research, it was aimed to teach the subject of simple machines to elementary 7th grade students by means of robotics-assisted lego training sets and examine the effects of practices on academic achievements of students. The study was conducted with 20 students studying in the 7th grade of elementary school. A single group pre-test-post test model which is one of the pre-test designs, was used in the study. In the research, the subject of simple machines was tried to be taught to students by using the Lego® Mindstorms EV3 Training Kit and the Lego® Simple and Motorized Machine Kit. The application lasted total for 20 hours as 2 stages. At the first stage, Lego® Mindstorms EV3 Training Kit and Lego® Simple and Motorized Machine Kit were introduced to the students. At the second stage of the exercise, the "Carousel" activity for teaching the topic of gearwheels, the "Go-Card" activity for teaching the topic of wheels and axles, the "Catapult" activity for teaching the topic of leverages and the "Crazy Grounds" activity for teaching the topic of pulleys were made students do by using simple and motorized machines. In the research, as a mean of collecting data, "Simple Machines Academic Achievement Test" developed by Ayazgök (2013) in order to measure the achievement levels of students concerning the subject of simple machines and in order to evaluate the perspectives of students on the use of legos as a course material and determine the opinions and suggestions of students about the practice "Semi-structured interview form" were used. The data obtained in the study were evaluated through the SPSS package program. In the light of this study, it was determined how students perceive education with legos as a method oriented the subject of simple machines and how the practice affects the academic achievement of students.

Keywords: Elementary Education, Simple Machines,

THE EFFECT OF USING OF EVIDENCE-BASED INFORMATION SOURCES IN SCIENCE TEACHING ON PRE-SERVICE TEACHERS' ATTITUDE TOWARDS EDUCATIONAL RESEARCH

Nail Ilhan

The findings of this study showed that the pre-service teachers in the experimental group had significantly increased positive attitude towards educational research when compared with pre-service teachers in the control group. This finding supports that using EBISST helps increase the positive attitudes towards science educational research. The aim of the study is to investigate the effect of using of Evidence-Based Information Sources in Science Teaching (EBISST) on pre-service teachers' attitude towards educational research. This study was performed in the quasi-experimental, pre- and post-test design using a random sampling methods. The pre-service teachers in the experimental group have instructed the EBISST while the control group have instructed the existing traditional teaching methods. The Attitude Scale towards Educational Research (TASTER) developed by İlhan et all. (2013) was administered to groups before and after their teaching. The study participants in this study were 106 third year undergraduate (experimental group=58; control group=48) who got the “School Experience” course at the Kilis 7 Aralık University. The pre-service teachers conducted teaching sessions in classes at elementary schools. Experimental group applied EBISST during their teaching while control group applied existing traditional teaching. ANCOVA (analysis of covariance) test was used to compare the mean scores for the pre- and post-test TASTER scores of the experimental and control groups. Beliefs around the ineffectiveness of educational research in addressing existing educational challenges often cause in negative attitudes towards such researches. Therefore, it is important to determine the causes of teachers’ attitudes towards educational research.

Keywords: Evidence-based Information Sources, Science Education, Pre-service Teacher, Attitude Towards Educational Research

THE EFFECT OF UTILIZING PROJECT-BASED INSTRUCTION ON STUDENTS’ METACOGNITION AND SELF-EFFICACY IN FACE-TO-FACE, HYBRID AND ONLINE LEARNING ENVIRONMENT

Mohamed Ibrahim

The purpose of this study was to investigate the effect of project-based learning (PBL) on pre-service teachers’ self-regulation and self-efficacy skills in face-to-face, hybrid and online learning environment. The investigator employed a within-subject design with three dependent variables: pre-service’ self-regulation skills, self-efficacy skills and learning styles and one independent variable class activities using project-based teaching. Participants in this study were 66 students, 54 undergraduate, 12 graduate in a Midwest university. The projects used in this experiment were designed to teach pre-service technology integration strategies in three different learning settings: Face-to-face, hybrid and online. The results revealed that the use of the project-based teaching strategy does improve pre-service teachers’ self-regulation skills in a technology integration course. Furthermore, the results showed that students’ self-efficacy perception was significantly improved after engaging in PBL strategy and that pre-service teachers’ self-regulated skills improved equally in three different learning environments: face-to-face, hybrid and online. Finally, the results showed that the PBL activities improves pre-service teachers self-regulated skills, regardless to their learning preferences, either they prefer to use lectures/discussions, books/written material, video/movies/media, or hands-on activities. Findings and the scholarly significance of the study were also discussed.

Keywords: Pre-service Teachers, Technology Integration, Project-based Instruction, Self-regulation, Self-efficacy, Face-to-face, Hybrid, Online Learning Environment, Metacognition

THE EFFECTIVENESS OF CLINICAL SUPERVISION ON TECHNOLOGY TEACHER'S PROFESSIONAL DEVELOPMENT IN JERUSALEM A CASE STUDY

Ahmad Fteiha, Noor Abdawi

This study aims to investigate the effectiveness of Clinical Supervision on Technology teacher's professional development in Jerusalem by attempting to answer the following key research question: What is the effectiveness of clinical supervision on technology teacher's professional development in Jerusalem? The study utilized a Qualitative Research Methodology with an analytical descriptive design. The case study consists of a participant teacher who was chosen via a diagnostic survey distributed to three teachers who taught technology from 5th to 12th grade due to the difficulties that the Technology teachers faced, since the subject is variety in content and need to apply different ways to educate. The researchers implemented this type of supervision that consists of a cycle of three stages: a planning session, classroom observation and a feedback session (Gall & Acheson, 2011). The aim of the study was to change the teacher's viewpoint and perspective towards supervision with the aid of the following instruments: an interview with her, at the beginning and the end of the study; to determine her needs, and to meet these needs by using interviews and diagnostic and observation tools as well as following upon her portfolio and Teacher's Journal. The researchers focused on communication methods that supports teacher's reflections within a relationship of fellowship, trust and partnership. The study used four consecutive applications of the clinical supervisory cycle following a constructivist approach to meet the teacher's needs. Following the feedback session, an implementation period for the developmental practices that have been reached during the meeting was provided along with the indicators developed qualitatively to identify the level of progress and change. The results of the study revealed that the technical clinical supervision model contributed effectively to the professional development of the participant teacher. This development included communication skills, and teaching practices as well as reflection and self-assessment skills. In light of the study findings, relevant recommendations foe policy making bodies were offered to improve the educational supervision in the Palestinian education system especially in Technology subject.

Keywords: Clinical Supervision, Technology, Teacher, Professional Development

THE EFFECTIVENESS OF THE EDUCATIONAL DRAMA METHOD IN REALIZING ACHIEVEMENTS RELATED TO LEARNING THE TIME AT SECOND GRADE OF PRIMARY SCHOOL AND THE PLACE OF ACHIEVEMENT CONTENT IN SUCCESS LEVEL

Ahmet Çebi, Esra Ay Karaçuha

In parallel with developing reading and writing skills at second grade s/he has acquired during first grade, primary school second-grade student face with the reality of developing numbers-related skills at second grade s/he has also acquired during the first grade. In this development, considering the animism mental developmental property of the child opens the door slightly for permanent experience-based learning to reveal themselves. In this regard, for developing both reading-writing skills and the skills of acquisition of numerical concepts, setting the fairy tale subjects based teaching methods to work appears as an unavoidable necessity. One of the number-related skills which should be developed is the certain situations related to learning the time, a functional material. When examining the achievements (learning standards) of the program in force today; learning the top of the hours and the halves at first grade, and learning the quarters as well as the top of the hours and the halves at second grade are anticipated. Whereas, when examining the achievements (learning standards) of the previous program; learning the top of the hours at first grade, and learning the top of the hours and the halves at second grade are anticipated. Within the context of the ones stated here; based on the issue of this study, which focuses on

two main points such as procedural effectiveness and appropriateness for the level of student, the questions for which answers shall be sought can be divided into two clusters and be summarized as follows: this Experimental-Supervisory Cluster, Pretest-Posttest1-Posttest2 designed study, 'Is the fairy tale subjects based demonstration method or the fairy tale subjects based educational drama method more effective in realizing achievements related to learning the time?'; moreover, when examining their places in success levels, 'Is the content of learning the time related achievement of today's program or the content of learning the time related achievement of the previous program more suitable for mental development of primary school second-grade student?'

Keywords: Primary School Second Grade Achievements Related To Learning The Time, Mental Development Of Primary School Second-grade Student, Fairy Tale Subjects Related Demonstration Method, Fairy Tale Subjects Related Educational Drama Method

THE EFFECTS OF PROBLEM SOLVING SKILLS OF SECONDARY SCHOOL STUDENTS ON THEIR ATTITUDES TOWARDS THE CHEMISTRY COURSE

Canan Koçak Altundağ, Fatma Merve Mustafaoğlu, Ayşem Seda Önen

Chemistry is one of the fields of science involving abstract topics and concepts that students sometimes find challenging to comprehend. Students' attitudes towards the school subjects are directly or indirectly related to various issues, one of which is problem solving skills as an affective characteristic. The purpose of this study is to determine the attitudes towards chemistry and problem solving skills of high school students and analyze the correlation between their attitudes towards chemistry and problem solving skills with regard to multiple variables. A descriptive model was utilized as the research model of this study. The study group consisted of overall 323 high school students. The scale of attitudes towards chemistry, developed by Kan & Akbas (2005) and the Problem Solving Inventory, developed by Heppner and Petersen (1982) and translated into Turkish by Şahin, Şahin and Heppner (1993). The results confirmed high problem solving skills among high school students. A significant correlation (p.05) was found between the students' problem solving skills and independent variables including the time spent studying and their age. A significant difference (p

Keywords: Attitudes Towards Chemistry, Problem Solving Skills, Secondary School Students

THE EMBEDDED VALUES IN THE "ENGLISH FOR PALESTINE" TEXTBOOKS ACCORDING TO SHWARTZ THEORY

Nihad Masoud, Hasan Abdelkareem

This research was conducted to examine the embedded values of the English language curriculum in Palestinian public schools for the academic year 2015 – 2016 for the 8th, 9th and- 10th grades. The two main research questions were: 1. What were the types of emphasized values in the 8th- through 10th-grade textbooks for English classes in Palestine?2. How were those values transmitted in English classroom interactions? The researcher applied a qualitative methodology using content analysis of six textbooks, observation of four classes, and teacher interviews. The data from the textbooks analyses was transcribed and coded according to Schwartz's values theory, whereas data from the observation and interviews was coded using thematic analysis. The resultant findings showed an unbalanced distribution of value domains

in the English for Palestine textbook series, indicating that there is no consistencies in these values among learning units and grade levels. The findings also showed limited application and understanding of value systems by the teachers of English classes. The researcher suggests recommendations including the revision of English for Palestine textbooks to include more consistent values, the adoption of teacher training courses to inculcate a school culture of value awareness, and the expansion of English language pedagogy to include cultural and not only technical aspects.

Keywords: Values, Hidden Curriculum, Shwartz Theory

THE ESTIMATION OF UNREGISTERED ECONOMY VIA ECONOMETRIC APPROACH: THE CASE OF TURKEY FOR 1986-2015 PERIOD

Harun Bal, Emrah Eray Akça

The aim of this study is to estimate the size of unregistered economy in Turkey by using Econometric Approach for 1986-2015 period. According to the estimation results obtained a steady downward trend appears on the size of the unregistered economy in the last decade. Due to the presence of illegal activities, absence of unregistered economy is an unexpected situation. In the context of economic activities other than illegal activities it is important to carry out some policies in order to minimize the motivation for unregistered transactions.

Keywords: Unregistered Economy, Econometric Approach, Turkey

THE EVALUATION OF SOME BIOCHEMICAL PARAMETERS AND OXIDATIVE-ANTIOXIDATIVE BALANCE IN ALUMINIUM CHLORIDE INDUCED TOXICITY

Emine Atakişi, Onur Atakişi, Çağatay Özbey, Canan Gülmez, Kezban Yildiz Dalginli

Aluminum is the third most abundant element and makes up about 8% of the Earth's crust. All living organisms contain some aluminum and it can also be found in drinking water, grains, breath fumes, cosmetics, various industrial products, and food additives. Aluminum may display various toxic effects on the organs of animals, particularly in the bone, brain, kidney and liver. Aluminum may cause free radical formation through interfering electron transport chain. The aim of the study was to investigate the aluminum toxicity on antioxidant/oxidant system and on various biochemical parameters. In this study, Albino Sprague Dawley rats were divided into two groups as control (n = 10) and experimental (n = 10) groups. The animals in the experimental group were injected with a single dose of 34 mg/kg Al (dissolved AlCl3 in 0.9% NaCl), and blood samples were collected after 7 days. Total antioxidant status (TAS) and total oxidant status (TOS), total protein, albumin levels were measured by a colorimetric method using a commercial kit on plasma samples. TAS and oxidative stress index (OSI) levels significantly decreased.

Keywords: Aluminum, Total Antioxidant, Total Oxidant, Rat

THE EVALUATION OF THE EFFECTIVENESS PEDOGOGICAL EDUCATION PROGRAMME ACCORDING TO THE PHYSICAL EDUCATION TEACHER CANDIDATES

Fikret Alincak

This study was done to state the opinions of physical education teacher candidates on the effectiveness of pedagogical formation education. Through the research it was aimed to find out the suggestions of the physical education teacher candidates to the questions such as the problems they have witnesses during the pedagogical formation education, their recommendations on the solutions of those problems ,whether the programme supplied their expectations , their ideas on the uses and effectiveness of the programme and their general opinions about it. “Case Study Method” which is one of the qualitative research methods was used in the study.The research group was constituted by a team of 100 physical education teacher candidates who are about to graduate and graduated before. These were designated from Gaziantep University’s Gaziantep Education Faculty and Nizip Education Faculty students who were proceeding their education on Sports Management, Trainer Education and Recreation Departments. The data obtained from the research was analyzed by Content Analysis Method. At the end of the research it was seen that the approach of most of the candidates is the pedagogical formation certification programme was useful and effective in terms of teaching profession. Furthermore, it can be said that by decent planning of the programme lectures can be brought into more enjoyable and entertaining. Additionally, by well organizing the pedagogical formation programme it is recommended that the lecturers would attach more importance to the programme and the lectures would be more active.

Keywords: Pedagogical Formation, Teacher Candidate, Physical Education

THE FACTORS AFFECTING THE SCIENCE STUDENT TEACHERS'ACADEMIC SUCCESS

Esra Özay Köse, Emine Hatun Diken, Şeyda Gül

In this study, it was investigated the factors affecting Science student teachers'academic achievements and whether these factors have meaningful effect on gender and class levels. The sample of the research is composed of 125 voluntarily student teachers attended to the Science Education Department of Kazim Karabekir Education Faculty of Atatürk University in 2015-2016 academic year. A five-point Likert type "Factors Affecting Academic Achievement of Student Teachers" scale, developed by Batman and Yiğit (2016), was used as data collection tool. The scale with totally 23 items consisted of two sub-dimensions called "Personal Characteristics and Motivation" and "The Learning Setting and The Teaching Staff-Relating Factors". The data obtained from the application of the scale was analyzed and interpreted using SPSS package program. The findings indicated that the student teachers had the mean score in high level in terms of both owerall scale and sub-dimensions. The findings also indicated that there was no statistically significant difference between groups in terms of gender and grade levels ($p>.05$).

Keywords: Academic Achievement, Science, Prospective Teachers

THE IDEAS AND BEHAVIOURS OF THE SOCIAL WORK STUDENTS ON VOLUNTEERING: THE ANKARA UNIVERSITY EXAMPLE

Melahat Demirbilek, Ayşe Sezen Serpen, Ayşe Nur Turgut, Eyüp Yayli, Behçet Yeşilfidan

The objective of this work is to reveal the ideas and behavior of the Ankara University students on volunteering, studying in the department of Social Work. In the research population, the quantitative study which was conducted in the fall of 2015 included the freshman, sophomore, junior and senior students of the Ankara University Department of Social Work. The data were gathered by a questionnaire which was developed by the researchers and consisted of two parts which was applied to the volunteering students. The total numbers of the students are 223; amongst 53 freshman, 67 sophomores, 51 juniors and 52 seniors. The data were analyzed via the Statistical Package for the Social Sciences (SPSS) 16.0 statistics software with X2 and frequency distribution techniques. 74% of the students are female and 26% are male.71.7% of the participants perceive volunteering as pro bono, whereas 64.1% perceive it as satisfying every kind of need. 33.6% of the participants stated that they have participated as volunteers to certain activities during the past year, whereas 66.4% expressed they did not participate as volunteers to any activity. The percentage of the students who stated that social work education has positive effects on the students' volunteering perceptions and attitudes is 81.3%. At the top of the factors that prevents students participating volunteering activities is "I had no time" with 49.3%. 59.2% of the students think that the participations of students in the department to volunteering activities are insufficient. It was revealed that statistically there is a considerable relation between gender and volunteering in the past year (X2=7.554, p

Keywords: Volunteering, Social Work, Social Work Students.

THE IMPACT OF CONCRETE MATERIAL USE IN MATHEMATICS EDUCATION ON STUDENTS' ACHIEVEMENT: A META-ANALYTIC REVIEW

Ümit Kul, Sedef Çelik, Zeki Aksu

The rapid development in science and technology is obliged to integrate teaching tools and materials into education. It is aimed to combine the findings obtained from the independent studies in order to determine the effectiveness of teaching mathematics education with concrete materials. Based on certain criteria, 25 dissertation and thesis were included in the meta-analysis and 26 effect sizes were calculated from these studies. Students ranged in age from primary school to higher education (N= 1,849) and studied a variety of mathematics topics. As a result of meta-analysis, it was found that the concrete material use in mathematics education has a positive impact on academic achievement according to random effects model (ES= 0.91; p=0.00). As a consequence of the moderator analysis, it can be seen that teaching mathematics with concrete materials did not seem to differ in respect to stages of education, the learning areas and research design whereas using concrete in mathematics appear to differ in respect to duration of teaching time and implementer of material. In consequence, it is considered that the use of concrete materials in mathematics education is an important factor in terms of student's achievement.

Keywords: Concrete Materials; Meta-analysis; Student's Achievement; Mathematics Education

THE IMPORTANCE OF INCORPORATING PEACE EDUCATION IN THE MOZAMBICAN SECONDARY SCHOOL CURRICULUM

Charnaldo Ndaipa, Joaquim Coimbra

The present study falls under the theme of peace education, with the emphasis on the importance of incorporating peace education in the Mozambican secondary school curriculum as an independent and compulsory graduate subject. The study was undertaken to explore teachers and head teachers' perceptions, feelings, attitudes, behaviours, knowledge, experiences and preparedness concerning peace education in the Mozambican secondary school curriculum so as to promote debates and discussions as well as advise preventive approaches and strategies against violence and crime. The study was guided by the following questions: What could be the real importance and purpose of peace education in the country in general and secondary schools in particular? Why is there lack of concern towards peace education in the Mozambican secondary school curriculum regardless of the widespread existence of anti-social behaviours in secondary schools and the country at large? Which aspects need to be taken into consideration in order that peace education, when addressed purposefully, brings about qualitative changes both in the Mozambican secondary school and the country at large? What challenges are both the state and non-state social control institutions facing to reverse the tendency of today's country widespread violence and crime? Major limitation of the study was the scarcity of literature on the theme of peace education as related to Mozambique in general and secondary schools in particular. The information regarding the importance of and the need for introducing peace education as an independent and compulsory graduate subject in secondary schools in Mozambique has been offered from the review of the available related literature, in-depth interviews administered to secondary school teachers and head teachers, and from document analysis. The study followed a qualitative research design based on phenomenology method. The sampled population was 80 respondents, of which 72 teachers and eight head teachers, selected from eight public and private secondary schools of the Beira Cluster. The data were qualitatively analysed. The measure findings of the study revealed that the degree and type of violence and committed in Mozambique were extremely worrying. There were limitations on the part of state and non-state social control institutions upon adopting effective approaches to overcome violence and crime in the country. The causes of violence were linked to the political, social and economic context of the country. Despite this, there is negligence towards peace education in the Mozambican secondary school curriculum. Both teachers and head teachers were able and willing to have peace education as an independent and compulsory graduate subject in the Mozambican secondary schools.
Among many others, the study recommended that for reversing negligence upon peace education as well as advising appropriate strategies to stop the increase of violence and crime the ideas and initiatives that have been discussed and proposed in this study should become building blocks for further research on the theme of peace education in this sub sector of education in Mozambique.

Keywords: Peace Education, Incorporation, Curriculum, Approaches

THE INVESTIGATION OF THE ATTITUDE TOWARDS PHYSICS PRE-SERVICE TEACHERS OF COMPUTER AND INSTRUCTION TECHNOLOGY

Ersin Karademir, Mustafa Zafer Balbag

Attitude is the learned tendency that causes the individual to show certain behaviors in the face of certain people, objects and situations (Demirel 2001). Attitudes are the affective characteristics that are really difficult to learn, teach and control in general, and interact with different variables at different levels and at different rates (Yılmaz 2006). Computer and Instructional Technologies (BTE) Since the teacher candidates interact with different disciplines, it is important that their attitudes towards these disciplines

are also at a level. The purpose of this study is to examine the attitudes of the computer and instructional technology (BTE) teacher candidates towards physics. In this research, it is aimed to compare the attitudes of the METU teacher candidates to the physics according to some variables (gender, academic achievement, graduated high school type). In the study, the general screening model was used. According to the model, in order to collect data, Eskişehir Osmangazi University Education Faculty BÖTE Teacher Education students Nalçacı et al. (2011) developed data collection tool was applied. The data obtained with the data collection tool were analyzed with the help of SPSS package program, interpreted and suggestions were developed in the direction of the achieved results.

Keywords: Attitude, Physics, Pre-service Teacher, Computer And Instruction Technology

THE INVESTIGATION OF THE BLOOD PRESSURE GRADE LEVELS OF DISCIPLINARY APPROACH TO THE SCIENCE OF PHYSICS, PHYSICS, CHEMISTRY AND BIOLOGY TEACHER CANDIDATES

Fatma Şahin, Aysun Göcük, Yeliz Sevgi

Next generation science standards emphasize the importance of inquiry, research and transformation into knowledge as well as learning. Nowadays, the fencer is the emergence of the expected technology and product. In addition to the integration of physics, chemistry and biology, the contribution of fields such as art, technology, engineering, economics and history is very important. On the other hand, in order for students to be able to comprehend a scientific concept permanently, information must be given in relation to each other, not separately. Biological, chemical and physical principles affecting blood pressure, which is a topic of biology, have been considered as a whole in this research. The study group of the study consisted of 40 students from the Department of Physics, Chemistry, Biology and Science Education of a State University. In the study, the data were obtained from concept maps drawn from open-ended questions about blood pressure and teacher candidates. Open-ended questions include physics, chemistry principles (Ohm's law, viscose, etc.) related to blood pressure. The data were analyzed qualitatively and quantitatively. As a result of the study, the levels of understanding the disciplinary concepts of the physics, chemistry, biology and science students related to blood pressure were determined and suggested.

Keywords: Interdisciplinary Education, Blood Pressure

THE INVESTIGATION OF THE RELATIONSHIP BETWEEEN ATTITUDES AND SELF EFFICACIES OF THE PRESERVICE ELEMENTARY TEACHERS ABOUT GIFTED EDUCATION

Kayhan Bozgün, Serpil Pekdoğan

Gifted children show widely divergent abilities such as general ability, motivation and creativity compared to their peers. Because of these differences the education of gifted students also gains importance (Renzulli, 2003). Teachers' self-efficacy levels and attitudes about gifted children are effective factors to meet these children's academic and emotional needs. Teachers must have some academic and instructional competences, along with the necessary attitudes or perceptions, while educating gifted children. The purpose of this study is to examine the relationship between the self-efficacy and attitudes of the preservice elementary teachers in terms of some variables. The study was conducted with a relational survey design which is among the quantitative research methods and determines the level of relationship between variables. The 172 teacher candidates studying in the elementary teaching of education faculty

constitute the sample group of this study. As a data collection tool; The Self-Efficacy Scale for Gifted Education developed by Tortop (2014) and Attitude Scale towards Gifted Education (ASGE) revised by Tortop (2014) was used. In the analysis of the data, the Pearson Moments Correlation Coefficient to determine the relationship between the two scales; independent sample t-test, one-way analysis of variance was used in the analysis of data with normal distribution using SPSS package program (Büyüköztürk, 2013). According to the findings, the attitudes of the girls from the preservice elementary teachers are higher than those of the boys about gifted; there was no significant difference between self-efficacy and gender. It has been found that there is no change in the attitudes and self-efficacy of the teacher candidates as the grade level increases. Despite the fact that there is a positive relationship between the attitudes and self-efficacy of preservice elementary teachers about gifted, this result is not meaningful. In the future, it may be advisable for researchers to conduct studies comparing the attitudes and self-efficacy of preservice elementary teachers and elementary teachers on gifted education.

Keywords: Gifted, Attitude, Self-efficacy, Elementary Teaching, Preservice Teacher.

THE INVESTIGATION OF THE RELATIONSHIP BETWEEN SELF-REGULATION AND LANGUAGE LEARNING STRATEGIES

Tolga Erdogan

A body of research has shown that self-regulation and language learning strategies are important variables influencing learning. The aim of the study is to analyze the relationship between students' self-regulations and the language learning strategies they use in learning. For research purposes, the changes in self-regulations and language learning strategies according to achievement and grade levels, the more or less frequently used language learning strategies and factors of self-regulation favored or neglected are also investigated. The participants comprise 860 higher education students attending various departments in a state university in Turkey. The Scale on Self-Regulation in Learning (SSRL) and Strategy Inventory for Language Learning (SILL) were used to gather data. Descriptive statistics, independent samples t-test, ANOVA and correlation statistics were used during data analyses. The findings show strong positive correlations between the two main constructs, changes in both student self-regulations and their language learning strategies when students' achievements and grade levels are considered and reveal some facts about the frequently used or neglected skills or strategies in learning. Conclusions are drawn and suggestions for further practice and research are made in the end accordingly.

Keywords: Self-regulation, Language Learning Strategies, Achievement, Grade Level, Higher Education

THE LOCAL MEDIA AND THE NEWSPAPERS IN MALATYA BETWEEN 1930 AND 1960

Fatih Kaya

Humans have the need to learn what is going on around them and in the world, and inform others about these events or about their thoughts. This need exists more or less in every human being. In order to cover this need, and as a result of the entrepreneurships in this field in the history, the “Media Institution”, which we call as the “fourth power of the civil society” was established. Many things have been written throughout history in order to show the importance of the press. These written and oral discourses show that the press is one of the major struggles of the modern society, because press is the oldest and the most influential one among the means of communication. In a narrow sense, press covers merely newspapers and magazines. With a broader sense, it refers to all published materials that are printed at certain times and delivered to the society to announce any types of ideas and news. Generally, the daily printed press is also called as newspaper, fortnight’s press release, or as monthly press release. Mustafa Kemal Atatürk defined the press as “the common voice of the nation”, and completed this definition as follows: “Press is a power, a school and a guide on its own in enlightening and teaching a nation, in providing the nutrition it needs; in brief, in ensuring that the nation proceeds for a mutual direction”. The purpose of this study is to summarize the local press activities and the newspapers released in Malatya between 1930 and 1960. In this context, the newspapers and press releases that would be the sources for our study were determined, and were evaluated to aid us in our study. The study was designed in the Review Model, and was conducted as based on the Document Review Method.

Keywords: Press, Newspaper, Local Press, Malatya.

THE PERCEPTIONS OF TURKEY'S TEACHING STAFF RELATED TO EUROPEAN UNION PROCESS

Erol Koçoğlu

The European Union accession process is a process that begins with an application for official candidacy of an applicant country and is open to all European countries that wish to become an EU member, according to article 49 of the European Union Treaty, which is the legal basis for the accession period. The summit held in Helsinki on 10-11 December 1999 was declared a candidate country on equal terms with the other candidate countries. After this summit was declared, there is a lot of controversy about the process of progress in Turkey - EU relations. The dimensions of these controversies are different in terms of those who are engaged in the debate. In this study, it is aimed to reveal different aspects of the process in Turkey in terms of the EU process in terms of the views of the teaching staff working at different universities in Turkey. The study was based on qualitative

Keywords: European Union Process, Teaching Staff, Perception, Perspective

THE PERFORMANCE OF 3 DIFFERENT CLASSIFIER ON CLASSIFICATION OF WEBKB DATASET

Bekir Parlak, Alper Kürşat Uysal

In this study, an application related to text classification which is from the subordinate branches of pattern definition. The pattern recognition, text classification and operations performed from the components of the work are explained in detail.There are 2 data sets named webkb_train and webkb_test for the application.Of these data sets, webkb_train consists of 2803 lines and webkb_test 1396 lines. These documents have been tested with Naïve Bayes, Bayes and J48 classifiers.

Keywords: Text Classification, Webkb Dataset, Classification

THE RELATIONS BETWEEN THE ORGANIZATIONAL HAPPINESS AND THE ORGANIZATIONAL SOCIALICATION PERCEPTIONS OF THE PHYSICAL EDUCATION AND SPORT TEACHERS

Rasim Tösten, Yunus Emre Avci, Erhan Şahin

The main purpose of this research is to examine the relationship between levels of organizational happiness and organizational socialization of physical education and sport teachers. The research is quantitative and relational survey model. The universe of the research is composed of 257 physical education and sports teachers working in Siirt province. The entire universe was tried to be reached and 244 physical education and sports teachers were reached at the target stage. Within the scope of the research, 2 measurement tools were used. The Organizational Happiness Scale was developed by Bulut (2015). The '' Organizational Socialization Scale '' was developed by Erdoğan (2012). For the reliability of the measurement tools, the cronbach alpha coefficient of the organizational happiness scale was .93 and the coefficient of organizational socialization scale was .92. Arithmetic mean, standard deviation, correlation and regression tests were used in the analysis of research data. Some of the research results are as follows: Teachers' organizational happiness levels are high and organizational socialization levels are very high. There is a high level of positive correlation (r =, 67) between the levels of organizational happiness and organizational socialization of teachers. Teachers' organizational happiness is predicting organizational socialization. The model explains organizational socialization by 44%.

Keywords: Physical Education And Sport Teachers, Organizational Happiness, Organizational Socialication

THE RELATIONSHIP BETWEEN PRESERVICE ELEMENTARY TEACHERS' SOURCES OF SELF-EFFICACY AND TEACHING BELIEFS

Mustafa Cansiz, Nurcan Cansiz

The purpose of this study is to investigate the degree to which sources of self-efficacy predict the preservice elementary teachers' constructivist and traditional teaching beliefs. A total of 151 student teachers participated in this study. Two instruments were utilized for the purpose of the study. One of them was Teacher Beliefs Survey (TBS) developed by Woolley, Benjamin, and Woolley (2004) and adapted into Turkish by Yilmaz-Tuzun and Turker (2008). The other instrument was Sources of Self-Efficacy Inventory (SOSI) developed by Kieffer and Henson (2000) and adapted into Turkish by Çapa-Aydın, Uzuntiryaki-Kondakçı, Temli and Tarkın (2013). TBS has 19 items in four subscales: traditional teaching,

constructivist teaching, traditional management, constructivist parent. Traditional teaching and constructivist teaching subscales were used in this study. SOSI has 27 items in four subscales: mastery experience, vicarious experience, social persuasion, and physiological and emotional states. The multiple regression analysis was run to explore which sources of self-efficacy contributes to participants' constructivist and traditional teaching beliefs. The data analysis revealed that "mastery experience" is significantly related to the student teachers' constructivist teaching beliefs while "physiological and emotional states" is significantly related to their traditional teaching beliefs. The study concludes with recommendations for elementary teacher education.

Keywords: Sources Of Self-efficacy, Teacher Beliefs, Constructivist Teaching, Traditional Teaching

THE RELATIONSHIP BETWEEN PRESERVICE TEACHERS' TEACHING PRACTICE CONCERNS AND SELF-EFFICACY PERCEPTIONS

Duygu Saniye Öztürk, Faruk Öztürk

In increasing the quality of education, the effect of qualifications which were gained during pre-service education by preservice teachers is profound. Teacher whose primary duty is provide learning, he/she needs to put into practice the theoretical knowledge that is learned during pre-service education in his/her teaching process to realize this duty for the expected level. Also practice teaching is an important factor in teacher education programs and it plays an important role in preservice teachers' improving their teaching skills. For this reason, Investigating the facts that effect this process negatively, making the necessary arrangements is important. Therefore, it is important too, to determine preservice teachers' cases towards teaching practice process. The aim of this study is, therefore, to determine preservice teachers' concern level towards " Teaching Practice" and to investigate the relationship between teaching practice concern and teacher self-efficacy. This research is a descriptive study carried out through survey method. The sample of this study includes 385 preservice teachers from different departments who study at an educational faculty and take " Teaching Practice" course, and certificate students that take formation courses. Random purposeful sampling method is used in to select students. Data related to the study are gained from scales which were applied to 2015-2016 spring term 4th grade faculty of education students and cerificate students that take formation courses. In the study, to determine preservice teachers' concern related to teaching practice, " Student Teacher Concerns Scale" and "Teacher Sense of Self-Efficacy Scale" was used. The data were analyzed using the SSPS for Windows 2.0 program and for the analysis of the data, the mean and standard deviation scores were calculated, an independent samples t-test was used and the Pearson product-moment correlation coefficient scores were calculated. Data gained from the scales are investigated in terms of variables such as gender, department and faculty. According to the research results, preservice teachers whose teacher self-efficacy beliefs are low have high level of anxiety level.

Keywords: Preservice Teacher, Self-efficacy, Teaching Practice, Teaching Practice Concern

THE RELATIONSHIP BETWEEN THE EMPLOYMENT AFTER VET EDUCATION OF SYRIAN WOMEN IMMIGRANTS AND THE CONTINUATION OF THEIR CHILDREN TO EDUCATION?

Özge Dursun, Mustafa Hilmi Çolakoğlu

In this research, the women who left Syria due to war and immigrated to Turkey were studied. They were within the scope of the Vocational Training Program for Young and Female Syrians in Turkey. The program was financied by the Japanese government and technically supported by UNIDO, AFAD, Istanbul Ready to Wear and Apparel Exporters Association (IHKIB) and Turkey Ministry of National Education. We studied the the relationship between education and certification of women immigrants in the field of textiles and ready-to-wear and the continuation to education of those women's childs.

Keywords: Education

THE ROLE OF COHERENT RESEARCH-BASED CURRICULAR UNIT IN MEDIATING STUDENTS' INTEGRATED VISION OF HUMAN IMPACT ON THE ENVIRONMENT

Narmin Ghalichi, Gillian Roehrig

The ongoing development of the high school ecology curricular unit presented in this proposal is a response to the new tide of educational reforms in the United States. This curricular unit represents an attempt to frame K-12 science curriculum around three dimensions: crosscutting concepts, disciplinary core ideas and scientific practices recently released in the report on a Framework for New K-12 Science Education (National Research Council, 2012), which served as a foundation for the development of Next Generation Science Standards (NGSS; NGSS Lead States, 2013). Integration of three dimensions into the development of agriculture-related curricular unit reflects complexity and logic inherent in science discipline simultaneously facilitating conceptual understanding among students. The development of this curricular unit takes place under the initiative of National Science Foundation (NSF) funded project and explores the efficacy of the agriculture-related unit on students' integrated vision of the human impact on natural systems. Research project seeks to recognize the extent to which synergistic arrangement of cognitive tasks in the curricular unit and scaffolded instructional guidance promotes scientifically based vision of the world in students (Clements, 2007). The uniqueness of this study stems from testing the impact of coherent curriculum materials encouraging students to explore causal links among entities in mapping out interactive nature of nutrient cycles underlying the human interference with natural systems. The interdisciplinary nature of this project has the potential to investigate how close adherence to features identifying research-based curriculum can support development of coherent curricular unit mediating students' integrated vision of environmental issues. Mediation results of this nature have larger implications on future efficacy studies of curriculum intervention.

Keywords: Constructivism, Coherence, Crosscutting Concepts, and Educativeness

THE ROLE OF TEACHER'S BEHAVIORS IN STUDENTS' COLLECTIVE ENGAGEMENT IN SCIENCE CLASS

Gülşen Koçak, Münevver Subaşi, Yasemin Taş, Sündüz Yerdelen

This study aimed to investigate the role of science teacher's behaviors (i.e., teacher's autonomy support and teacher's structure) in students' collective engagement. Students' collective engagement refers to their task involvement, such as attention, effort and verbal participation, and also attempts to affect flow of classroom activities. By using an observation form developed by Reeve, Jang, Carrell, Jeon, and Barch (2004), totally, 41 science teachers working in middle schools in Erzurum were observed during one class hour. Before data collection, observation form was adapted into Turkish by the researchers. The observation form incudes four sub-dimensions which are teacher's autonomy support (4 items), teacher's structure (5 items), teacher's involvement (4 items), and students' collective engagement (5 items). In the scope of this study, teacher's autonomy support, teacher's structure, and students' collective engagement sub-dimensions were used. The observation form is prepared in a bipolar format which has negative statements on the left side (scored 1) and positive statements on the right side (scored 7). The reliabilities (Cronbach alpha) for the subscales ranged from .73 to .97. The teachers showed high levels of autonomy support (M= 5.73, SD= .94) and teacher's structure (M= 5.86, SD= 1.02). Students' collective engagement was also found to be at high level (M= 5.47, SD= 1.46). By conducting multiple linear regression analysis, students' collective engagement was predicted by teachers' behaviors. A considerable amount of variance explained in students' collective engagement (Adjusted R2= .64) by teacher's behaviors. Teacher's autonomy support (β= .40) and teacher's structure (β= .46) were statistically significantly and positively predicted students' collective engagement. Based on these findings, it can be concluded in science classes where teachers' nurture intrinsic motivational resources such as enjoyment, challenge; use informational language rather than controlling language; be clear, predictable, and understandable; and scaffold students, students' collective engagement are likely to be high.

Keywords: Teacher Autonomy Support, Teacher Structure, Student Collective Engagement, Science Education

THE STATUS OF EDUCATION IN EAST JERUSALEM SCHOOLS

Muna Abudabat

The purpose of this desk research was to investigate the state of education in east Jerusalem schools. Data was collected in the year of (2012-2013). There were (116) governmental Palestinian schools, private, and (UNRWA) schools. Also there were Israeli schools that are related to the Israeli ministry of Education or to the Israeli municipality. These schools had different visions, missions and goals which created many social economical and political crisis. This structure in Jerusalem schools holds it back from achieving a healthy educational system for future leaders attending schools, universities or colleges. The collected data showed great diversity and mixture of Educational polices, curriculums, insufficient staff and unsuitable buildings, this lead to desperation and confusion since having diversity of supervising heads that won't provide nor promote the cooperation and coordination needed between schools and organizations working on the educational structure in Jerusalem. Finally, many implications for Education in east Jerusalem schools were recommended by this research mainly empowering the staff and developing the curriculum to deal in healthy ways with all of these diversities and crisis.

Keywords: East Jerusalem Schools

THE STUDY OF SOCIAL GENDER PERCEPTIONS OF PRESCHOOL CHILDREN RELATED TO PROFESSIONS

Sibel Karabekmez, Günseli Yildirim, Güzin Özyilmaz Akamca, Murat Ellez, Ayşe Nur Bulut Üner

Social gender is defined as the duties, responsibilities and behaviours that the society expects from men and women in accordance with their gender. The cultural and social values, the expectations and conventional gender specific roles determined by the society make it possible to distinguish women and men. The gender perception also shows itself on the professions. Female and male professions are discriminated depending on the perceptions related to professions and the roles according to gender. This study was carried out in order to study the social gender perceptions of children in the pre-school period, which is the most appropriate period for acquiring the concept of social gender created by social values and judgements. The study was carried out with kindergartens of the Ministry of National Education in İzmir and with 30 children in kindergardens aged between 48 months and over during the educational year from 2016 to 2017. Qualitative research method was used in this study. Qualitative research is defined as the study ,in which a qualitative process is followed aiming at revealing the perceptions and events in a realistic and holistic way in a natural environment ,and in which qualitative data collection methods such as qualitative research, observation, interview and document analysis are used. In this study, the gender perceptions of pre-school children related to the professions were revealed through the analysis of the pictures they have drawn, the gender perception determination form for the professions and the child information form. Children were asked what the profession is and asked them to draw a picture of any job. Then the questions on the gender perception determination form for the professions were asked. In addition, the forms containing socio-demographic informations about the children were filled out by the parents. The data obtained were analyzed according to the rules of content analysis,and the social gender perceptions of preschool children related to professions were interpreted.

Keywords: Social Perception Of Gender, Professions, Preschool Children

THE USE OF DIGITAL STORY TELLING ON TEACHING OF THE CONCEPT OF MEAN IN THE MATHEMATICS LESSON

Bahar Dinçer, Suha Yilmaz

Students require more versatile auditory and visual elements during learning in a course with the developing technology. Together with this requirement story telling method which was used for many years has been updated and it appears as digital story telling with the inclusion of audio, image, text and effects. The aim of this study in the light of this information is to evaluate the digital story which was prepared by the researcher about the arithmetic mean concept for the data analysis sub-learning area of data processing unit of the Mathematics course for 6th grade under the views of the student. The study was conducted in 2 course hours; in the first course hour the digital story was presented and examples on the subject was solved and in the second course hour scale application in which digital story teaching for arithmetic mean subject was evaluated in terms of content and method. The study group of the research consists of students of 6th grade who study at a secondary school (equipped with an interactive whiteboard) located in a central campus within the boundaries of Izmir Province. In the research, the mixed method approach in which qualitative and quantitative methods were used together has been adopted and the data obtained from the subject evaluation form for digital story telling developed by the researcher. In the quantitative dimension of this evaluation form; impressions of the student on the course and a quinary evaluation scale are included and in the qualitative dimension open ended questions towards the conceptual learning and content of the digital story is included. According to the research findings, the following results were revealed: Conceptual learning of students for arithmetic mean concept was realized, students exhibited a positive impression towards digital story teaching, the students has an interest and appreciation towards this method.

Keywords: Digital Story, Math Teaching, Mean

THE WAY LEADING FROM THE ADOPTION OF KNOWLEDGE TO CREATION OF KNOWLEDGE AT THE CHEMISTRY CLASSES

Kamala Tomayeva

Very little time was given to chemistry classes at incomplete secondary schools. According to the curriculum programs, basic knowledge of the subject is planned to be taught within a short period of time. There is weak connection between the topics in the textbooks written on the basis of the program. Knowledge and skills are not learned systematically, knowledge is transferred in a prepared form make students to learn them by heart. A number of changes should be carried out in order to remove this problem and to teach students to be able to learn by thinking. These include:

• The hours for chemistry classes should be increased at incomplete secondary schools. And it will be the strengthening of forthcoming knowledge.

• Textbooks should be written in a simple, meaningful way and knowledge should be associated with each other systematically. Alongside with being knowledge- oriented, the tasks should be practical also and make students to think over them. Thus, students will not learn by heart the course and they will learn the material. Students will think over how to coordinate, to replace the old knowledge with the new knowledge and apply practically the new knowledge.

• Practices carried out by the students can yield effective results. While using the Internet resources, the students have an opportunity to think and to work creatively.

• Constructive learning environment should be created in order to rouse interest for the teaching process, interactive discussions should be organized.

The knowledge presented in the textbook should be compiled in a logical sequence in order to solve the problem. The given knowledge should be compiled in the modules according to the sections. As the knowledge within the module is logically linked with each other, the modules are also connected with each other. Open-ended tests are also given alongside with close-ended tests, along with the knowledge-oriented questions, thought-provoking questions are also given. For example: in the 8th grade, in the section “Major classes of in organic compounds”, the following topics – oxides, bases, acids, and salts are learned without any interrelation. First, brief information about oxides, bases, acids, salts is given. Then knowledge in each topic is divided into front and future knowledge: “oxygen oxides-bases”, “oxides, bases, acids”, and “bases-acids-salts”, “ acids-salts-oxides”. The hermeneutic approach created in constructive atmosphere may result in learning the topic systematically, learning its parts deep, and acquiring the knowledge is replaced with teaching-learning process.

Keywords: Constructive, Module,, Hermeneutic, Associative, Knowledge, Open-ended Tests

THEMATICAL AND METHODOLOGICAL TRENDS IN "THIS MY PRODUCT" PROJECTS: CASE STUDY OF ESKIŞEHIR REGIONAL FINAL COMPETITION

Eyüp Artvinli, Vildan Bayar, Irfan Terzi

The aim of this study is to analyse the projects in the science branch which is entitled "This is My Science Mathematics and Science Project" in Eskişehir Region Final Competition in terms of scientific methods and subjects. In this research, a document review was conducted within the content analysis of qualitative research methods. According to this, 67 scientific sciences projects in the 2014 Eskişehir Region Final Competition were analysed according to 6 basic variables including method, theme, category, area, type of school and located city of the school. When the projects are examined according to themes the numbers of projects are; 18 projects in the structure and properties unit of the material, 10 projects in the reproductive, growth and development in the living unit, 9 projects from the unit of electric in our lives, 8

projects about the relation between the living and energy unit, 6 projects about our body system unit, 4 projects about the force and motion unit, 3 projects about let's solve the puzzle of our body unit 3, 2 projects about let's know the living unit, 2 projects about the sound unit, and 1 from the human and the environment unit. There are also 2 projects outside the topic of curriculum. On the other hand, when the projects are examined in terms of research methods; It was determined that 64 projects used quantitative research design of experimental method and 2 projects used document analysis method of qualitative research design. It has been determined in the project abstracts that there is very little information about the methods of the projects or that they are not mentioned at all. In such projects, it is possible to determine which methods they use as a result of content analysis made by researchers. Likewise, in the vast majority of projects, it has not been expressed which theme of the unit determines the project theme. Therefore, it is suggested that the project abstracts and their contents should describe the scientific methods in detail and, if necessary, indicate to which theme and units the course curriculum is related.

Keywords: Scientific Method, Theme, Science, Project Development, This Is My Product

THEORETICAL CALCULATIONS OF 3-(P-METHYLBENZYL)-4-CHLOROACETYLAMINO-4,5-DIHYDRO-1H-1,2,4-TRIAZOL-5-ONE USING B3LYP AND HF BASIS SETS

Gül Özdemir, Gül Kotan, Muzaffer Alkan, Haydar Yüksek

Firstly, 3-(p-methylbenzyl)-4-chloroacetylamino-4,5-dihydro-1H-1,2,4-triazol-5-one was described in the literature (Yüksek et al., 2004). Then, this compound were optimized by using the B3LYP/6311G (d,p) and HF/6311G (d,p) basis sets (Frisch et al., 2009; Wolinski, Hilton&Pulay, 1990). IR absorption frequencies of analysed molecule were calculated by two methods. The veda4f program, was used in defining IR data, which were calculated theoretically (Jamróz, 2004). 1H-NMR and 13C-NMR isotropic shift values were calculated by the method of GIAO using the program package Gaussian G09 (Wolinski et al., 1990). Experimental (Yüksek et al., 2004) and theoretical values were inserted into the grafic according to equatation of δ exp=a+b. δ calc. The standard error values were found via Sigma Plot program with regression coefficient of a and b constants. The experimental (Yüksek et al., 2004) and the obtained theoretical values were compared and found by regression analysis that are accurete. Additionally, dipole moments, the HOMO-LUMO energy, total energy of the molecule, bond lengths and mulliken charges from both methods were calculated.

Keywords: Giao, 6311g (d,p), Mulliken Charge, B3lyp, Hf

THINKING LOGICALLY: BIRZEIT UNIVERSITY STUDENTS ABILITIES IN LOGICAL THINKING TEST IN TERMS OF SOME INDEPENDENT VARIABLES.

Hasan Abdelkareem, Inas Abbad

The aim of this study was to measure the general logical thinking abilities of Birzeit University students. A sample of 358 students from eight colleges sat for the Logical Thinking Test (LTT), which was designed especially for this study purposes. The LTT consisted of three main domains: Multiple choice, visual reasoning, and problem solving. The results of the test indicated that the overall achievement of participants was modest (52%). Furthermore, there was a significant difference between students according to their area of study (i.e. Engineering College students scored the highest with 61.2% average, whereas the Public Administration specialists were the lowest with 36%). Additionally, male participants

scored higher than females with a significant difference (58.8% versus 46.6% respectively). Interestingly, it seems that there was no correlation between the study level, depending on the accumulative credit hours, and the participants ability in logical thinking. Many educational implications were recommended as a result of this research.

Keywords: Logical Thinking, Higher Education

THOUGHTS OF STUDENTS WITH INTELLECTUAL DISABILITIEN ABOUT LEARNING SCIENCE WITH STUDENTS WITH NORMAL INTELLEGENCE

Kevser Köse, Seyit Ahmet Kiray

The purpose of this research is to conceive opinion of students with intellectual disabilities to science education with normal students in the their class. Participants in this research's study group are students with students with intellectual disabilitien who are study at secondary school. Semi-structured interview technique has been used in this research which deals with data collection technique. The interview form developed by the researcher as a means of data collection in the research has been finalized in the direction of expert opinions. In this study, mainstreaming students stated that they are more satisfied with the training of the more successful students in the same class. They have reported that they lean bett er if they help them with things they do not understand. Science teachers and both groups of students with a common opinion has shown that science education should be given to students with intellectual disabilitien more carefully with model and slide like lesson tools.

Keywords: Students With Intellectual Disabilities, Mainstreaming Student, Science Education, Students With Normal Intelligence

TO SIMULATION OF HEAT TRANSFER SYSTEM FOR THE SHEEPFOLD

Muratbek Issakhanov, Sholpan Sakipova, Nesipbek Alibek, Toremurat Dyusenbaev

The article discusses the results of theoretical and experimental studies of energy efficient heat transfer system of sheepfold. To modeling the energy saving heat exchange system was used the differential equation of the temperature field of soil around the ductwork of ventilation system. The diagram of the experimental energy saving heat transfer system that placed in the sheepfold is shown. For test the modern information-measuring system for remote registration of thermo technical parameters of the ventilation systems was used.

Keywords: Temperature Field Of Soil, Temperature Over The Length Of The Channel Walls, Sheepfold, Ventilation.

TRADITIONAL COURSE INSTRUCTOR (CONSTRUCTIVE) COURSE LEARNING TRANSITION

Nazim Qardashov

At the beginning of the 21st century, the reconstruction, modernization of the education system of Azerbaijan and the use of innovative educational technologies in the organization of these works have been recognized as a fundamental issue. New pedagogical research is needed to solve these issues. In the traditional learning system applied for centuries, it was necessary for the students to keep in mind the information communicated to them and apply them properly, while being at the point of transferring the teacher information. One of the forerunners of the educational philosophy, pragmatism-based traditional teaching, has several advantages along with its current deficiencies. This kind of education is given a lot of scientific knowledge in a short time, the hard-to-understand information is explained to the students in detail, the time is saved and the effective management of the pedagogical processes is ensured. For this reason, it is not right to abandon the traditional teaching method completely because it is the teaching theory, and in this theoretical learning process, mental skills develop such as cognition, learning and understanding and application. The results of teaching theories are at low levels in Bloom's taxonomy, and if we want to raise highly-qualified and knowledgeable individuals according to the demands of the technology community, we must establish the educational process in principle on the basis of teaching and learning theories. Constructivism, one of the pedagogical philosophical pioneers, is a learning theory (J. Piaje) and it is possible to create new knowledge with the information that students have obtained in F.Bunyatova's constructive lessons built on the basis of this theory. Here, the two philosophies benefit from the principles of pragmatism and constructivism. Each piece of information must be understood, pragmatism, and knowledge must be negotiated within the group and the class, and prosecution must be made of the mental processes on which new personal information is formed (constructivism). In this case, teaching is translated into profundity and cognition is transformed into structuring and creativity (constructivism), adding to the level of knowledge, meaning, comprehension, analysis, evaluation of Bloom's taxonomy. This way of learning from teaching to learning is a way of thinking from the pragmatism path to the educational philosophy to the way of constructivism, in which the knowledge of both the teacher and the student will develop logically.

Keywords: Comprehension; Constructivism; Making Information; Praqmatatizm; Proqressivizm; Taksonomayasi Cognition; Creative

TRANSFORMATIONAL LEADERSHIP AS PERCEIVED BY TEACHERS AND PRINCIPALS IN EAST JERUSALEM SCHOOLS

Muna Abu Dabat, Ahmad Ftaihah

The purpose of this quantitative study was to investigate the state of educational leadership in schools of East Jerusalem in light of the transformational leadership as perceived by teachers and principals. A stratified random sample of (481) teachers were selected from (2418) teachers in the academic year (2012-2013). Additionally, (58) principals who were randomly selected from (116) principals from the governmental, private, and (UNRWA) schools in Jerusalem. The instrument of the study was the Multifactor Leadership Questionnaire (MLQ) that was adopted from Avolio & Bass (2004). The collected data was analyzed using the Statistical Package of Social Studies SPSS in order to find the means, standard deviations, and T- test, were. Findings indicated that the state of transformational leadership was moderate to high as perceived by principals and teachers, it was (4.25) and (3.79) respectively. Furthermore, intellectual stimulation and individual consideration had the lowest means among the transformational leadership. In addition, the results revealed that the means of transformational leadership and transactional leadership were close (3.97) and (3.77) as seen by principals and teachers. All

the previously stated means were according to Likert scale (i.e. out of 5). Finally, many implications for leadership were recommended by this study.

Keywords: Transformative Leadership, Esat Jerusalem Schools,

TRANSITION TO MULTI-PARTY POLITICS IN MALATYA AND DEMOCRATIC PARTY (1946-1960)

Mesut Aydin

The most brilliant period of multi-party politics in Turkish politics is the process started with the Second Constitutional Monarchy period in 1908. In this period, many political parties were established, representing almost every faction of the broad-based ideological spectrum. These include Union and Progress Party, Ottoman Liberal Party, Union of Devouts of Nation, Union of Muhammad Party, Islahat-ı Esâsiye-i Osmaniye Fırkası, Populace Party, Ottoman Socialist Party, Freedom and Entente Party, National Constitutional Monarchy Party and Moderate Freedom Party. After the Second Constitutional Monarchy, transition to the multi-party politics has been quite difficult and laborious. The Republican People's Party(RPP) was established (1923) after the proclamation of the Republic and there has been many attempts to transition to multi-party politics through several political parties such as Progressive Republican Party (1924), Free Republican Party (1930) and National Development Party (1945) albeit unsuccessful. The Republican People's Party reigned through the one-party years until 1946; transition to multi-party politics was possible only through the 1946 elections. The Democratic Party, which was established on January 7, 1946, won 64 parliamentary seats in the 1946 general elections and had successfully entered the parliament. The Democratic Party (DP) has organized quickly in the province of Malatya as well as the rest of the country. Malatya provincial organization of DP was established shortly before the 1946 elections and founders and members of the steering committee were Güray Zühtü Anıt, Kamil Bedri Ener (President), Enver Gürsel, Kemal Özmumcu, İhsan Kaya, Cevdet Güray, Kamil Güzel, Faik Akdoğan, Kemal Akmete, Kerim Ağır, and Arif Buğdaycı. The DP provincial organization decided not to participate in the general elections of 1946 and 1948, but supported independent candidates Hussein Doğan and Ali Gebeş. By 1949, as in everywhere, the breakaway from the CHP in Malatya has also accelerated. The first important disengagement in the CHP was with the resignation of Mustafa Saltoğlu who joined DP at the DP Malatya Provincial Congress held on April 19, 1949 with the participation of DP founders Refik Koraltan and Fuat Köprülü. A resignation wave has followed, Abit Karakaş and 11 former CHP party members joined DP ranks. DP President Celal Bayar came to Malatya on October 24, 1949 and appealed to the public from Şehir Palas and started the 1950 election campaign in Malatya. In the 1950 elections, dubbed the "white revolution", DP won a great victory although it did not succeed in Malatya with 64,834 votes. The districts where DP was successful were Arapgir, Adıyaman, Besni and Kâhta. The 11 candidates on the CHP list including President İsmet İnönü were elected to the parliament. DP's first success in Malatya was seen in local elections. Elections were held for the Village and District of Offices and the Elders' Councils on August 13, 1950; elections for the Municipal Assembly and the Mayor were held on September 3, 1950; and elections for the Provincial Assembly were held on 15 October 1950. DP won 23 District Offices in central Malatya and villages on 13 August 1950 local elections. In the municipal elections, DP won in Arapgir, Adıyaman, Besni and Kahta. In the 1954 general elections, DP did not win a seat, despite receiving 88,235 votes in Malatya; CHP won all of the 12 seats in the parliament. In the 1957 general elections, the Malatya DP provincial organization took 32.8% of the votes (39,229 votes) but could not win a seat. The decrease in of the number of votes is due to the separation of Adıyaman, Kahta and Besni and its surroundings from Malatya and the establishment of Adiyaman province in 1954. As the DP was removed from power in 1960 by the government's coup d'état, the DP Malatya provincial organization was closed down and the party leaders were prosecuted.

Keywords: Malatya, Democratic Party, White Revolution

TRANSNATIONAL EDUCATION IN CHINA: A CRITICAL REVIEW OF POLICY CHANGES

Ning Tang, Min Tang

This paper aims to address transnational education (TNE) policy changes in China. TNE, as a major global phenomenon, has been growing significantly in recent decades. Whilst some Western higher education providers such as in the USA, UK and Australia, are among the most active in TNE across the world, China has become the biggest importing country for worldwide TNE. According to the British Council, TNE refers to 'education provision from one country offered in another… includes a wide variety of delivery modes including distance and e-learning; validation and franchising arrangements; twinning and other collaborative provision' (cited in Tang and Nollent 2007: 8). In China TNE is defined as a 'form of foreign education institutions working with Chinese counterparts to establish educational facilities or projects in China, recruiting mainly Chinese students. It is a public welfare undertaking and part of China's education program' (MoE 2003). In this paper, both these definitions are applied in the analysis of TNE policies from a Chinese perspective. The paper will mainly focus on a critical review of TNE policies released by Chinese central government. The historical and recent development of TNE will be conceptualised into different stages to explore the TNE relationship between the national, local and institutional levels. The policy review will also draw literature from international perspectives to further understand the rationale of TNE development and the impact of the official regulations in China. The paper will conclude by highlighting recent trends in TNE policy changes signalling a shift from a wide expansion to selective development in TNE in China.

Keywords: Transnational Education, China, Policy Changes

TURKISH ADAPTATION AND PSYCHOMETRIC EVALUATION OF THE MORAL METACOGNITION SCALE

Ümit Duruk, Esra Açikgül Firat, Abuzer Akgün

Our lives have been getting more and more complex to a large extent over time. Such a complexity forces us to make more frequent and instant decisions on moral dilemmas. On the other hand, ethical decision making process has to do with more careful deliberation. Otherwise, the possible effects of such a complexity would increase iterative relapses of unethical decisions. Moreover, individuals rely more often on automatic information processing. Instead, automatic information process should be replaced by deliberative cognitive reasoning. Due to moral learning is interrelated to metacognition, it would be assumed that metacognition that is a tapped capacity supports recognising unconvincing terms of cognitive shortcuts and override automatic information processing. In spite of the importance of the relationship between metacognition and ethical decision making, there is still a lack of assessment tools offering conceptual frameworks conjugate these two related phenomona in the given literature. The purpose of the present study was to adapt the moral metacognition scale developed in English by McMahon and Good (2015) into Turkish language and to evaluate dimensionality of the scale. The 20-item original scale with four dimensions presents a frame including metacognition into ethical decision making process and considering metacognition as a domain-specific capacity. After the translation of the scale into Turkish by five domain experts, the draft form was revised by a Turkish expert and ten preservice teachers were asked to rate each item in the scale in terms of clarity. The revised scale was applied to 165 preservice teachers enrolled in a state university. Data collected from the sample were tested for sampling adequacy. KMO value was found .85 as meritorious and Bartlett test that examines homogeneity of variances was significant. To validate the scale, we ran a four-factor confirmatory factor analysis using chi-square statistic ($\chi 2/df = 1.33$; RMSEA=0.045; SRMR=0.063; RMR=0.059; CFI=0.97; GFI=0,89). Given these values, it was seen that scale's hypothesized measurement model with four factors was consistent with actual data yielding good fit indices. In addition, the overall internal reliability of the scale was found to be .87 and .75, .72, .56, .74 for the dimensions in the scale, respectively. The results showed that the scale

met the validity and reliability. In conclusion, Turkish version of the moral metacognition scale provided a valid and reliable measure of moral metacognition across preservice teachers.

Keywords: Moral Learning, Ethical Decision Making, Moral Metacognition, Scale Adaptation

TURKISH BANKNOTE RECOGNITION APPLICATION FOR VISUALLY IMPAIRED

Özgür Şahin, Bariş Koçer

Visually impaired people have some problems regarding to identify Turkish banknotes. In thıs manner, we present an iOS mobile application which uses image processing and adaptive algorithms in order to identify Turkish banknotes. Algorithm processes the the camera input and evaluates this data using SURF feature points, brute force matcher and FLANN. This data is used as an input to the neural network. Improved neural network categorizes the banknotes. In order to make the images easier to process digitally, some preliminary operations are performed. Examples of such operations include correction of the viewing angle, determination of areas of interest by applying image filters, and reduction of black space in color space. The goal here is to make the image more digitally meaningful. The Otsu algorithm is a black-and-white rendering process for rendering with a simple definition. It assumes that the algorithm image pixels can be divided into two groups (foreground and background pixels) with a double-state histogram. In this study, the Otsu method is used to translate the black level images of the gray level images. The largest rectangle will be found by Canny edge detection method. Then the dilation and erosion processes will be applied to close the holes in the picture. After this step, the rectangle which is larger than the determined size will be detected and clipped so that only the image composed of the banknote will be obtained. The SURF algorithm can create points of interest that are independent of the scale and in terms of their identifiers. It has been observed that the performance is very good in terms of reproducibility, discrimination and stability, as seen in the investigations made. Moreover, the computation and mapping of the SURF method is also fast, so it is preferred in real-time applications. The process after the selected points of interest are determined and the SURF determinants are calculated is a comparison of these determinants. As a result of this comparison, similarity training gives the most optimal weights by training the artificial neural network and thus classifying the banknotes.

Keywords: Surf, Canny, Otsu, Image Processing

TURKISH EATING MORALS AND CULTURE IN KUTADGU BILIG

Erdal Akpinar, Fatih Kaya

Turkish Nation, which has nearly 5 thousand years' history, has spread throughout the world, established many states under various names, and has had a rich and long-established culture. Kutadgu Bilig constitutes one of the milestones of this rich and long-established culture. Based on the definition suggesting that the "nation is the appearance of the experiences of a common culture and past history", we found it necessary to investigate the Kutadgu Bilig, which was written by Yusuf Has Hacib, who himself guided the Turkish Culture in many fields for centuries, in terms of eating morals and culture, because Turks, who spread to many geographical areas from Turkistan to Anatolia, formed a rich eating culture thanks to their long historical background and accumulated knowledge. In transferring these values to future generations, Kutadgu Bilig is a bedside book. However, although it has been translated into many languages, it still has the quality of being a hidden treasure. Reşit Rahmeti Arat, who first compiled and

translated Kutadgu Bilig into Turkish, said "When the Turkish youth understands this book, Turkey will be saved". The purpose of this study is to make a compilation on Kutadgu Bilig, which is one of the masterpieces of the Turkish Cultural history, in terms of Turkish eating morals and culture. In this context, the couplets on Turkish eating morals and culture in Kutadgu Bilig were determined, and these couplets were evaluated in a manner that would constitute the resource for our study. The study is in the review model, and has been conducted with document review method.

Keywords: Kutadgu Bilig, Yusuf Has Hacib, Eating Morals

TURKISH LANGUAGE DAY ACTIVITIES ORGANIZED BY MALATYA COMMUNITY HOME

Fatih Kaya

The Community Centers, which marked the history of the Republic in Turkey as the institutions that represented the cultural awakening, are one of the most important cultural institutions established on February 19, 1932. Especially during the Republican Period, they had an extremely important duty in transferring the values and revolutions brought by the Republic to the people in a short time and in the development of the country in social and cultural terms. The Community Centers spread to all cities, towns and even to villages of Anatolia from the day they were established until 1951, and had the historical duty of carrying the national and cultural values to our present day and to the future in every corner of the country. In the first years of the Republic, the Community Centers were the complementary elements of the public education and were organized as 9 branches. These branches were Language, History and Literature, Fine Arts, Theatre, Sports, Social Aids, Public Training Centers and Courses, Library and Publishing, Peasantry, Museums and Exhibitions. The Community Centers organized activities for the purpose of celebrating National Days and Weeks with their branches. One of these activities is the Turkish Language Festival celebrations. These celebrations were organized for the purpose of ensuring the national unity and togetherness and to develop the solidarity among the people, and were also organized in Malatya Community Center. Turkish Language Festival was one of the important national days and weeks, which was accepted on September 26, 1932, on the same day when Turkish Language Congress, which convened with the leadership of Mustafa Kemal Atatürk, was established, and was celebrated in Malatya Community Centers in a regular manner with different activities each year. Especially the Language, History and Literature Branch and the Theatre Branch contributed greatly to the celebrations. The purpose of the study is to reveal the celebration activities in the Turkish Language Festival in Malatya Community Center. In this study, the Literature Review Method will be used as the research model. The findings that will be obtained with the review will be analyzed.

Keywords: Türkiye, Halkevleri, Malatya, Dil Bayrami.

TURKISH STUDENTS' EXPERIENCES IN USING A COMPUTER SUPPORTED COLLABORATIVE LEARNING (CSCL) TOOL (VIRTUAL MATH TEAMS - VMT)

Gülgün Afacan Adanir

This study aims to identify usability problems related to Virtual Math Teams (VMT) system, which is supporting online collaborative activities of learning groups. For the usability assessment, two major evaluations have been conducted. In the first evaluation, students filled the scale of framework for CSCL system Usability Evaluation including dimensions - Effectiveness, Efficiency, Collaborativity, Error

Tolerance, Universal Accessibility, Satisfaction. The second evaluation considers students answers to open ended question related to system's usability problems. These two approaches together released the usability problems related to VMT system. The problems identified are related to four major usability aspects: system design, file upload, process tracking/automated notification, and error prevention. This study also suggests which immediate actions should be taken to improve usability of the system.

Keywords: Computer Supported Collaborative Learning, Virtual Math Teams, Usability

TYPOLOGICAL SOLUTIONS OF THE REPUBLIC OF KAZAKHSTAN, ATIRAU SIT REGION

Elmira Kanayeva, Z. Gediz Urak

A typological analysis was made on the Balgimbayev and Isenov streets in order to reach the typoligical results of the studied buildings. 121 buildings were evaluated in general and 8 buildings were evaluated in detail on these two streets.

Keywords: Architecture, Preservation, Repair, Restoration, Conservation Area, Kazakhstan, Atyrau

UNAUTHORIZED REMOTE ACCESS, CAPTURE INFORMATION ON THE TARGET COMPUTER AND IDENTIFICATION OF FORENSIC EVIDENCE

Aysun Coşkun, Atilla Arikan

IT Technologies, facilitator our lives, becomes bad intentioned people's means of criminality on the other side. Such as, a computer kilometres away can be seize, the datas/passwords can be stolen. This is done by the means of some misuse remote access by the bad intentioned people and Dark Comet software is the one of them. In order not to experience such victimization, while users have to be carefull about "Computer and information securityin internet", forensic science specialist who encountered unauthorized access have to know that it can determine which computer forensics evidence in that computers.

Keywords: Unauthorized Remote Access, Darkcomet, Trojan, Keylogger

UNDERSTANDING REDOX REACTIONS: MENTAL MODELS OF CHEMISTRY PRESERVICE TEACHERS

Sevil Akaygun, Emine Adadan

Oxidation-reduction (Redox) reactions has been challenging for many students. The reason for this challenge could be the difficulty they experience in connecting observable phenomena to an unobservable electron transfer. Redox reactions are taught at Grade 12 in chemistry classes and the first-year college chemistry classes. Therefore, it is important for preservice chemistry teachers to conceptually understand redox reactions. The aim of this study was to investigate preservice chemistry teachers' understandings of redox reactions. For this purpose eight senior chemistry preservice teachers were asked to participate in the study. They were given an open-ended questionnaire on redox reactions and then interviewed to have a deeper understanding of how they view the redox reactions. In the open-ended questionnaire, they were given photographs of a redox reaction occurring between iron and cupper (II) sulphate solution. The photographs given were showing the reactions right in the beginning, 30 minutes later and an hour later. Then they were asked to describe each photograph at the observable (macroscopic), symbolic, and

submicroscopic level in words and drawings. To elicit the mental models of preservice chemistry teachers, their explanations, drawings, and interviews were coded and emerged categories were determined. The analysis of the responses showed that preservice chemistry teachers had variations in their mental models of redox reactions ranging from well-structured to poor understanding, including certain alternative conceptions. In addition, they included different types of representations describing the same redox reaction.

Keywords: Chemistry Education, Redox Reactions, Preservice Teachers, Mental Models

UNIVERSITY EDUCATION AND VALUE CHANGE IN THE CONTEXT OF GLOBALIZATION

E. Meliha Kurtdaş

Values are general principles that guide individuals and provide criteria for evaluating events. Individuals perpetuate and perceive their lives around values. Just as each society has a different sense of value and hierarchy of values, the sense of value and hierarchy of the same society change over time. The change of social structure changes the values. As the social structure changes, the hierarchy of values and values changes, or as the values change the social structure changes. This is a bidirectional interaction. Today, globalization has a decisive influence on the values of societies. Globalization is making society and affecting values. Although the change of values affects the entire society, it is the youth in which the change process can be observed most easily. University education in particular has a significant influence on the value of young people. This study aims to reveal the value exchange created by university education in young people in the context of globalization.

Keywords: Value, University Education, Youth, Globalization, Value Change

USE OF GRAPHIC ORGANIZERS IN SECONDARY CHEMISTRY LESSONS

Canan Nakiboğlu

Studies have shown that secondary school students find chemistry topics and concepts difficult. One of the reason of the difficulties can be that the concepts of chemistry are too abstract for these level students. Besides the chemistry includes explanations of invisible interactions between invisible entities. It also includes declarative knowledge, procedural knowledge, relational knowledge and problem solving which can each of them contain low or high levels of cognitive complexity. Students need to construct the relationships between facts, concepts, and or ideas within a learning task. Graphic organizers are the visual representations that show the organization or structure of concepts as well as relationships between concepts. The effective use of graphic organizers may be a magnificent strategy to help students connect ideas and they can be added to instructional materials to communicate the logical structure of the instructional material. This study aims to show how graphic organizer use within teaching duration by presenting different types of graphic organizers and to provide an overview of the benefits of using the graphic organizers for teaching and learning of secondary chemistry lessons. For this purpose, the graphic organizers which are examples of different types of graphic organizers have been prepared for selected topics from 9th to 12th grade in this study. The graphic organizers (such as semantic future analysis, flow diagram, comparison contrast matrix, spider web, fishbone, positive and negative-interest diagram, word mapping, persuade map, cause-effect diagram, concept map) will be presented and discussed how they use in the chemistry lessons.

Keywords: Graphic Organizers, Secondary Chemistry Lessons, Teaching And Learning

USE OF MOBILE LIDAR SYSTEMS FOR CUT - FILL VOLUME CALCULATION

Doğan Savran, Hasan Bora Yavuz, Gürkan Tuna

Today's requirements about land surveying and evaluation of the surveying results are very challenging. To achieve the results in a short time and with high level of efficiency and productivity, mobile Light Detection and Ranging (LIDAR) and mapping systems can be used. In this study, the details of a field experiment are presented to evaluate the efficiency of Mobile LIDAR & mapping systems in order to calculate cut and fill volumes for a big construction area.

Keywords: Mobile Lidar, Mobile Mapping System, Leica Pegasus: Ii, Volume Calculation, Cut And Fill, Point Cloud

USING BLOOM'S RENEWED TAXONOMY TO ANALYSE LEARNING OUTCOMES IN MIDDLE SCHOOL MATHEMATICS CURRICULA

Sedef Çelik, Ümit Kul, Selcen Çalik Uzun

All around the world, the countries' curricula can be considered as a course of actions in the teaching and learning process. In this study, it was aimed at evaluating and analysing students' learning outcomes in Turkish middle school mathematics curriculum according to knowledge and cognitive process dimension of Bloom's Renewed Taxonomy. In order to gather the required data, document analysis as a qualitative method was used in this research. To analyse data, the learning domain of geometry and measurement was included. Therefore, the sixty six of mathematics learning outcomes were carried out individually by three researchers and were placed in the two-dimensional taxonomy. The results of analysing outcomes from each researchers were compared to view the concurrency and then differences between the researchers results argued to arrive at a consensus. Inter-rater reliability coefficient was calculated and it was found 0.82 which is representing as a good reliability. The general findings illustrated that although student's learning outcomes are dominated typically by procedural dimension all sub dimensions of the knowledge dimension are explicit, for instance, factual (10%), conceptual (33%), procedural (56%) and metacognitive (1%) knowledge. However, with reference to the cognitive process domain of the taxonomy, the findings illustrated that learning outcomes corresponds to remember (2%), understand (17%), apply (55%), analyze (4%), evaluate (20%) and creation (2%). According to the findings majority of the learning outcomes are concentrated on apply and there is a little attention given to create and remember dimension.

Keywords: Mathematics Curriculum; Bloom's Revised Taxonomy; Learning Outcomes

UTILIZATION OF ISSR MARKERS FOR SELECTION OF MUNGBEAN BACKCROSS PROGENIES FOR POWDERY MILDEW RESISTANCE

Akkawat Tharapreuksapong, Thanawat Chintana, Nirut Komjumpol, Pakhawat Pookhamsak, Duangkamon Chonpakdee, Chutima Damlert, Rujiporn Intarasorn, Aunchalee Phiakhot, Sudarat Chaiyarid, Pariyachat Sriwaranon, Prarichat Srisan, Nuttakan Luesatan, Paradee Chai

An inter-simple sequence repeat (ISSR) marker associated with a powdery mildew resistance gene derived from V4718 were used for marker-assisted selection (MAS) of 11 BC2F1 progenies of the crosses between a susceptible mungbean (Vigna radiata (L.) Wilczek) variety with high yield (CN72) and the powdery mildew resistant lines, carrying different resistance genes from V4718, V4758 and/or V4785. Genetic diversity and relatedness to CN72 were also evaluated among these 11 BC2F1 and 4 parental lines, CN72, V4718, V4758 and V4785 using 12 ISSR primers. In total, 211 ISSR fragments were amplified with 60% polymorphism. The number of amplified fragments varied from 13 (ISSR 840) to 23 (ISSR 888), with a size range of 300-2,072 bp. The average numbers of fragments per primer and polymorphic fragments per primer were 17.6 and 10.4, respectively. Polymorphism information content (PIC) values ranged from 0.21 (ISSR 886) to 0.42 (ISSR 811) with an average of 0.31 across all the genotypes. Genetic similarity varied from 0.653 (CN72 and SUT15BC2-29) to 0.894 (SUT15BC2-34 and SUT15BC2-36). Unweighted pair-group method arithmetic average (UPGMA) cluster analysis grouped these 15 genotypes into 2 major clusters; cluster I and II. The first cluster was further divided into 3 subclusters and an individual (CN72), while cluster II consisted of 2 backcross progenies. All 15 genotypes can be effectively distinguished by only 12 ISSR primers, suggesting the applicability of ISSR analysis for variety identification and relatedness analysis. Three backcross progenies, SUT15BC2-25, SUT15BC2-31 and SUT15BC2-34, exhibited a 416 bp DNA band associated with powdery mildew resistance similar to V4718 when amplified with ISSR 884 primer. Moreover, two of them, SUT15BC2-31 and SUT15BC2-34, were also genetically closely related to the recurrent parent CN72 (0.789-0.810), therefore they were selected for further backcrossing to accelerate the breeding program. These results suggest that ISSR markers can be used in MAS both as foreground selection for powdery mildew resistance and background selection for accelerated backcrossing.

Keywords: Genetic Relatedness, Marker-assisted Selection, Recurrent Parent, Vigna Radiata

VARIABLES THAT AFFECT STUDENTS' PERFORMANCE IN MATHEMATICS

Wajeeh Daher, Fakher Al-khalili, Yasmin Abu-kayyas

What affects students' performance in mathematics? What is the relationship of variables such as math level, anxiety, teacher support, confidence and motivation with students' performance in mathematics? The relationships of the five variables with students' performance in mathematics are complex, which made us use a correlation cross-sectional design to study them. Doing so, we conducted a Structural Equation Modeling (SEM), using self-report measures of the various variables, to examine the different relationships among them for eighth, ninth and tenth students. In more detail,based on the literature, the current study serves the purpose of investigating how teacher support, mathematical level, and anxiety may contribute to mathematical performance, confidence, and motivation on one hand. On the other hand it investigates how confidence and motivation contribute to mathematical performance. In addition this study tries to examine the contribution of mathematical performance to confidence. Seven hundred and twenty eighth, ninth and tenth grade students completed the questionnaires. There were 381 males and 339 females. All participants were from northern West Bank in Palestine, at upper primary governmental schools. The research results show that there are three models that can explain the

relationships between the six variables, but one of them can explain better than the other two these relationships.

Keywords: Performance In Mathematics, Confidence, Math Anxiety, Teacher Support, Math Level, Motivation

VIEWS OF TEACHERS AND SCHOOL ADMINISTRATORS ON INTERNATIONAL STUDENT SUCCESS EVALUATION STUDIES (PISA, PIRLS AND TIMSS) INTRODUCTION

Tuba Gündüz, Ceren Mutluer, Mehtap Çakan

This study focuses simultaneously on the comparative analysis of countries' student success states and the effectiveness of investments for education. Even this effectiveness is addressed from different points of views such as diversity of materials, quality of teaching environment, quality of teaching methods, student attitudes; determining the success levels of the students, which is the end product, and monitoring them over the years, emerges as an important dimension in every quality study (Berberoğlu and Kalender, 2005). International studies carried out to determine student achievement levels are the studies that are performed in order to provide a basis for a better understanding of their own education systems for policy makers, researchers, the officials that prepare the training curriculums of the schools, education politicians, with the purpose of assessing and, if necessary, restructuring the educational policies of their countries. These studies provide information in countries' educational system planning processes. There are two major organizations, which conduct international student success comparison efforts. These organizations and their studies on the international student success evaluations are presented below. In order to determine our position at the international level and to determine the deficiencies and precautions to be taken, our country has been involved in PISA in 2003, 2006, 2009, 2012, 2015; in TIMSS in 1999, 2007, 2011 and 2015 and in PIRLS in 2001. With the results of these studies, the education system in our country has been discussed and the way for its accountability has been paved. Teachers are at the heart of the application level of the accountability in education. On the higher level, there is the school administration. It is thought that the point of view regarding the international student success comparison studies in the mentioned group has an important place in accountability in education. In this study, it is aimed to investigate the views of teachers and school administrators about the comparative studies of international student success, which have significant importance. The results of this study might be important for supporting the 2015-2019 Strategic Plan of the Ministry of National Education (MEB 2015-2019 Strategic Plan, 2015) which is prepared aiming a participatory, transparent and accountable education system that aims to develop qualified people and a qualified society; or for taking the necessary precautions. This study is a case study in terms of addressing and deeply investigating a current phenomenon within its real-life framework, and presenting conclusions about the situation (Yıldırım and Şimşek, 2013). The case studies, which are qualitative research models, are also made in order to evaluate an event (Akt. Büyüköztürk, et al., 2012). The study group of this research consists of 18 primary and secondary school teachers and 3 administrators, who participated as volunteers, in the Etimesgut district of Ankara province. The views of teachers and school administrators about these projects with significant importance was collected with the structured interview form. In this study, 81% (17 people) of the teachers have replied as “I do not know, I do not have any information about it” to the first item (Among international student success comparison studies, which one (TIMSS, PISA and PIRLS) is the most prestigious evaluation, in which our country is included, in your opinion? Why?) of the structured interview questions. For this reason, the interviews with these participants were concluded. According to this, teachers and administrators are not aware of PISA, TIMSS and PIRLS studies. Examining the data of the remaining 4 people in the sample, all of these participants stated that they considered PISA as the most prestigious study. However, these participants also failed to respond to the second item of the interview (How do you evaluate the outcomes of the student success comparison studies in terms of accountability in education?), because they did not know the concept of "accountability in education"; therefore, the interview was concluded. It is therefore considered necessary to provide training for teachers and school administrations in order to promote awareness in accountability in education and to introduce the studies that have significant importance for our country's education system. In order for this study to continue, it

might be necessary to select the purposive sampling method (for example, the teacher candidates that are trained on these studies might be included in the study group).

Keywords: Large Scale Testing, Views Of Teachers, Accountability In Education

VIEWS OF TEACHERS ON THE LEVEL OF ACHIEVEMENT IN THE SUBJECT OF YESTERDAY, TODAY, TOMORROW IN THE SECOND CLASS IN LIFE SCIENCE COURSE

Hasan Aydemir, Özer Çelik, Yalçin Karali

The aim of this study, based on the views of classroom teachers, is to determine the actualization level of the gains of the theme called “Yesterday, Today, Tomorrow” in the Life Science lesson of the 2nd Grade the participants of this study consist of 100 classroom teachers who work in the towns like Darende, Hekimhan, Kuluncak in 2015-2016 education year. For gathering the data, the teachers guide books for the 2nd grade of life science lesson were used. The obtained data was analized by using SPSS statistical software. The findings were obtained by using t-test and one way analysis of variance “(ANOVA”. According to the genders , age, seniority and the districts where they work and those findings were interpreted. LSD test which is technique of post-hoc were used to find the sources of differences when determined any significant difference as a result of ANOVA test. It has seen that the functions in the theme can be gained in good and enough levely, according to the findings. To get better results about the materialization of the functions necessary precautions should be taken.

Keywords: Life-science Course, Theme, Functions, Teacher

VIEWS OF THE SENIOR HIGH SCHOOL STUDENTS ON THE DEPARTMENT OF SOCIAL WORK

Melahat Demirbilek

The aim of this study is to find out the views of the senior highschool students on the department of social work. The quantitative research which was conducted during the fall of 2016 studied on population which was comprised of the high schools in Ankara. The study was exercised by using quota sampling method on the six different types of high schools, with 301 female and 149 male students, in total 450 volunteers of the senior high school students. The data were collected through a questionnaire developed by the researchers; by utilizing frequency distribution and chi-square (X2) techniques. 73.3% of the students study equally-weighted programs, whereas 25.6% study in the quantitative program. Whereas 37.6% have knowledge about the department of social work, 62.4% have no knowledge. 96.9% describe that social work is a profession that studies with troubled groups, whereas 83.1% states it is a profession that requires establishing an effective communication. 59.6% of the participants anticipate social work as one of the professions of the future. 73.8% of the students indicate that social work is not one of those professions which the school’s counseling service is guiding them to, 74.2% adds that there are no career day organized at their school, 69.8% remarks they are not going to have social work as their choice of department after the university admissions test; arguing on the reason that social work has hard working conditions (93.1%) and it has too much work load and responsibility (90.4%).The facts that schools are not organizing career days and that social work does not exist among the professions which the school’s counseling service is leading the students to, affects the knowledge of the students on social work in a negative way (X2=8,054 p

Keywords: High School, Senior High School Students, University Preference, Social Work

VISUAL DESIGN IN GEOGRAPHY TEXTBOOKS

Suayip Seyihoglu, Aysegul Seyihoglu

While preparing textbooks, it is necessary to apply certain design principles. The purpose of this study is to examine geography textbooks in terms of visual design. Textbooks prepared by the Ministry of National Education for use in high school level geography lessons were analyzed by document review method. As a means of data collection, a Textbook Evaluation Scale was used in terms of visual design. It was also supported by interviews with findings specialist and graphic design specialists. Obtained findings were described with tables and supported with examples from textbooks. As a result, visual design elements were realized at different levels in books. There are problems in the amount and form of use of some elements, and suitability to the aim.

Keywords: Visual Design, Geography Education,textbook

VULNERABILITY ANALYSIS OF SMART PHONE AND TABLET COMPUTER OPERATING SYSTEMS

Aysun Coşkun, Ümit Bostanci

Into mobile devices such as smart phones and tablets are added new features each passing days. Previously, people have used for voice communication, phones, today, even when traveling from one place to another, it allows almost any kind of operation to be done on the internet. Smart phones and tablets are known to perform these operations through operating systems and application programs. Vulnerabilities that may exist in the operating system or application software allow these devices to be exploited by malicious users, copying or deleting all of the data contained on them. For this reason, remediating the security vulnerabilities on operating systems is extremely important. In this study, a new database was created by questioning vulnerabilities existing in the most preferred operating systems on smart phones and tablets from National Vulnerability Database of the US and CVEDETAILS databases. With regard to these vulnerabilities, CVSS scoring system which is used for scoring them created by FIRST was examined, in the light of re-scoring these vulnerabilities, the analysis of security of the operating systems was done with quantitative methods. Eventually, considering vulnerabilities, it is aimed to conduct a security analysis of the operating systems.

Keywords: Phone, Tablet, Vulnerability, Zero Day Vulnerability, Operating System

WASTE WATER BACTERIA MICROSCOPIC IMAGE ANALYSIS AND CLASSIFICATION SYSTEM

Volkan Altuntaş

Biovolume and filtered are microscopic process that used to determine the morphology of the bacterial diversity in the waste water with fluorescent filtered dye dead bacterial cells. Identification, measuring and counting of cells process which is time consuming and error-prone is done manually. Image classification by image processing and machine learning plays an important role in the solution of many problems. In order to extract some useful information from the image, image processing is a method to convert image to digital form and perform some operations on. Artificial learning systems have emerged as the needs such as automatic recognition and automatic decision-making process of objects and signals on the basis of certain parameters calculated by computer systems. In this study, image processing and artificial learning-based classification system is developed and used for the detection of bacterial diversity. It was concluded that proposed system can be used solving the problem effectively.

Keywords: Waste Water, Microbiology, Image Processing, Machine Learning

WEB BASED MEDICAL ARCHIVE SYSTEM DESIGN AND IMPLEMENTATION

Fidan Kaya Gülağiz, Hikmetcan Özcan, Suhap Şahin, Onur Gök

With the advances in technology and internet the need for transferring data to the electronic media is increased. Besides the management of the increased data becomes difficult and this large-scaled data must be controlled. Hospitals are one of the foremost institutions which must overcome big data in the present days. Different types of data belong to hundreds of patients must be stored at hospitals in every day. For efficient use of people right of receiving information, the corporations have to present the subjects of documents related with their service area, and also present the file plans that contains in which unit the documents are available by using information communication technologies. Today, numerous hospitals realize storing data process by using archive shelves. However, by this method, tasks such as achieving, reaching the information, information extraction becomes difficult due to increasing data size. For these reasons, archieving software which provides transferring documents to electronic media is needed. Within this study, an archive and file tracking system was developed for the hospitals. Thus, while achieving is provided, the document loss prevention is also targeted. Besides, the time consuming for accessing information about past patients is decreased seriously.

Keywords: Electronic Archive, Medical Data, 3 Tier Architecture

"WHO AM I?" – A REFLECTIVE EXPERIENCE ON THE SENSE OF SELF OF INTELLECTUALLY CHALLENGED ADOLESCENTS WITHIN FAMILIAL RELATIONSHIPS

Christene Louw, Herman Grobler, Richard Cowden

Using an embedded, mixed methods approach, semi-structured interviews were conducted with 12 adolescents. The participants also completed an emotional intelligence measure, the BarOn Emotional Quotient Inventory: Youth Version. The participants' scores indicated average emotional intelligence, supporting their capacity to recognize, understand, and manage emotions experienced by the self and others. The adolescents' provided corroborating qualitative evidence that they understood the influence of family relationships and positive and negative broader social experiences (e.g., peers in school) on their sense of self. Based on the findings in this study, exploration and self-reflection facilitate the formation of strong, stable selves, and suggest that intellectually challenged adolescents may need supportive reinforcement to construct a positive sense of self.

Keywords: Sense of Self, Adolescence, Familial Relationships, Intellectual Developmental Disabilities, Mixed Methods

WHOLE (INTEGRAL) AND FUZZY MODEL OF E –TEXTBOOK IN 3D

Fatma Khanim Bunyatova

Electronic textbooks, replacing paper books are enriching traditional forms of teaching, as it allows including a huge number of teaching and visual materials in it and promotes the development of qualitative new methods of teaching. However, in many textbooks teaching material is structured in memorizing, learning and applying of knowledge. The proposed program-methodical complex – "Whole (integral) and fuzzy model of e –textbook in 3D" develops mental abilities of students and provides an opportunity to interactively learn the curriculum. The proposed "Integral and fuzzy model of e –textbook in

3D" will be applied in smart phones and tablets. Working with this model of e-textbook in 3D, students acquire the ability to build their knowledge by learning the meaning and essence of the material they are learning. Knowledge of e –textbook in 3D will be built on synergistic approaches of psychology, didactics and high technology. The content of knowledge of e-textbook in 3D will be structured according to the mechanisms of logical integrity by Piaget and fuzzy logic by Zadeh. New knowledge is based on ontogenesis knowledge learned by consistent, logical questions and is logically linked with further knowledge.

Keywords: Fuzzy Logic By Zadeh; Logical Integrity By Piaget; Model Of E –textbook In 3d; Synergistic; Ontogenesis Knowledge

FORECASTING TURKEY'S ENERGY DEMAND USING CUCKOO SEARCH ALGORITHM

Ismail Koc, Mehmet Beskirli

Energy demand forecasting is a major problem that has been resolved by policy makers to make important decisions influencing the economy of the country. Cuckoo Search Algorithm (CSA) is an optimization technique based on swarm intelligence which is used to solve numerical optimization problems developed recently. In this study, CSA is used in the estimation of long term energy demand in Turkey. Considering the relation between the increase of some economic indicators, and the increase in energy consumption in Turkey, two different equations are used for energy demand estimation, named as linear form and quadratic form. Long-term energy demand of Turkey from 2012 to 2030, GDP is estimated using Gross Domestic Product (GDP), imports, exports and population indicators. In order to demonstrate the success of the CSA for the energy demand problem, CSA is compared with other methods in the literature. Experimental results indicate that the proposed method is more successful than the other methods.

Keywords: Cuckoo Search Algorithm, Optimization, Energy Demand, Forecasting, Turkey

AN INVESTIGATION OF THESIS REGARDING STATISTICS AND PROBABILTY IN TURKEY CONTEXT

Nadide Yilmaz, Esra Demiray

The purpose of this study is to examine theses regarding statistics and probability in Turkey. Therefore, to determine dissertations YÖK National Dissertation Center has been surveyed via using key words related to statistics and probability. The number of theses aimed to examine for this study is 72. This research is a meta-synthesis study. By reviewing the coding sheets used in other studies, a coding sheet was adapted for the study. As the first step in coding process, each thesis was read in detail and was abbreviated as T1, T2, T3 etc. Then, each thesis was analyzed in terms of purpose, research design, participants, data collection tools and data analysis procedure. Since data analysis process is ongoing, the findings will be presented at the conference. The results of this study might helpful for researchers who want to study about statistics and probability.

Keywords: Statistics And Probability, Content Analysis, Meta-synthesis Study

ANALYSIS OF RESEARCHES ON LEARNING STYLES

Ayşegül Sağlam Arslan, Engin Kangal

Within the scope of this research, it was aimed to examine with a holistic point of view the effects of studies on learning styles which are frequently discussed in recent times among the individual differences. A total of 92 studies conducted at the national level were included in this meta-analysis study which aims to make a general judgment about these researches and which gather data from various researches on learning styles. In this context, the study analysis researches according to their aims, sampling group, data collection tools, analysis of data, findings, results and recommendations. As a result of the research, it was revealed that a significant part of the studies were carried out in order to determine whether the learning styles of the individuals or the relationship between learning styles and sex. On the other hand, it has been determined that these studies are mostly conducted with university students and especially with teacher candidates.

Keywords: Learning Styles, Meta-analysis

ANALYSIS OF ROAD BASED AIR POLLUTANT LEVELS BY VARIOUS ARTIFICIAL INTELLIGENCE TECHNIQUES FOR PREDICTING AIR QUALITY

Zeynep Ceylan, Serol Bulkan

Today, air pollution due to fossil fuel consumption has reached serious dimensions. Therefore, due to the great threat to human health, it has become compulsory to keep air pollutants at certain limits. The main difficulty with air quality control and management, especially in large cities, is meeting air quality targets in areas where traffic is high. For this reason, in this study, it is aimed to carry out a study to give information about one day ahead pollutant levels. As the location to be investigated, Sıhhıye was chosen from the most concentrated regions of Ankara (capital city of Turkey). For this region, all meteorological and related data such as number of vehicles and concentration of pollutants was taken from website of Turkish Ministry of Environment and Urbanization (National Air Quality Observation Network). Air quality estimation is an extremely complex process. Thus, Multiple Linear Regression, Artificial Neural Networks (ANNs), Principal Component Analysis (PCA) and Support Vector Machines (SVM) models were applied to available data for prediction of major pollutant substance levels. Results obtained with ANN have resulted in higher correlation coefficients than other models. Thus, it is concluded that traffic-driven concentrations of air pollutants can be forecasted more accurately by using ANN models.

Keywords: Air Pollutant, Artificial Intelligence, Air Quality

ANALYSIS OF TURKEY'S REFUGEE POLICY IN THE LIGHT OF SYRIAN REFUGEES OPINIONS

Erol Koçoğlu

The first refugee community in Syria entered Turkey on 29 April 2011. Two years after this date, the country has been home to more than 200,000 refugee camps that have reached 21 in number, and a total of 3,000,000 Syrian refugees outside the camp, estimated to be at least 400,000 people. All entries were allowed from the first day when the Syrians started to come to Turkey border in 2011 Spring. As well as those who entered with passports like normal times, those who came without any document were

accepted to temporary refugee camps established by Turkey. This policy of Turkey brought both appreciation and criticism both nationally and internationally. In this study, Turkey\'s refugee policy has been evaluated in the direction of the Syrian refugees in the affected state of this policy. The study was based on qualitative methodology and NVivo 11 program was used for analysis of data and creation of models.

Keywords: Turkey, Refugee Issue, Perception, Opinion, Policy

A DIGITAL GAME DESIGN FOR BASIC MATHEMATICAL OPERATIONS WITH A DIFFERENT APPROACH

Sakir TASDEMIR, Hayri INCEKARA, Burak TEZCAN, Selahattin ALAN

Today with the rapid developments in technology computers and computer games become a vital part of life. In parallel to this developments usage of computer games in education is one of the topics that needs to be considered important. In order to quicken children's education and intelligence development games and educational tools are developed. Educational games create opportunities for children to learn new things as well as increasing their mental abilities, ease to understanding of boring subjects and courses. Therefore, with the proposed work an educational game combining snake game and mathematical operations which haven't been done before designed. With the designed game improving children's skills in basic mathematical operations are aimed. C# programming language has been used in designed work.

Keywords: Digital Game, Game Programming, Snake, Mathematical Operations

DATABASE MANAGEMENT SYSTEMS SAFETY AND PROTECTION METHODS: SQL INJECTION EXAMPLE

Sakir TASDEMIR, Safiye EMEK, Selahattin ALAN, Burak TEZCAN

The increasing of web applications and many daily life processes made through web platform, have accelerated the work on this subject. This situation has caused problems that we encounter in the web environment; especially it led to the security issues. It is not only possible to provide web security at the desired level, but also needs to support different points such as database security, session management, protocols. SQL Injection is one of the most serious vulnerabilities in web applications. Although it has a fairly simple algorithm, if precautions are not taken, the malicious attacker gains access to the direct system and infiltrates into the infrastructure. In this study, the database security in general, SQL injection and protection methods in particular are discussed. Various solutions have been investigated with the aim of being able to overcome this problem. The main theme of the study is SQL Injection security vulnerability and security measures to be taken are discussed. Developed query cues, security measures taken and solution recommendation have been tested in a web application. SQL Injection is possible and security measures are taken and the new situation is observed separately. SQL Injection can be done with security measures taken by taking the new situation is observed separately. As a result, security measures to be taken by application developers and users have been put forward.

Keywords: Database Security, SQL Injection, Web Vulnerabilities, Security Precautions.

ENERGY LITIRACY AMONG MIDDLE SCHOOL STUDENTS IN OUREMIYEH IIRAN: KNOWLEDGE, ATTITUDE, AND BEHAVIOR

Eskandar Fathi Azar, Somayyeh Mola

Energy literacy is important in decisions related to energy and energy application in our daily lives. Various levels of knowledge and awareness about energy can effect on the activities, personal, and social decisions. Energy literacy is one of the main goals of science teaching. There have been four domains of scientific literacy consistent with energy literacy: (a) learning science and technology, (b) learning about science and technology, (c) doing science and technology, and (c) engaging in sociopolitical action (Hodson, 20).A body of research addresses lack of energy literacy among secondary middle school students (Dewaters 2011). The aim of this study is investigating energy literacy of the middle school students. The study population consisted of all male and female middle school students in the city of Orumiyeh. And sampling is stratified cluster random sampling. The data collection tool is the energy literacy questionnaire provided by DeWaters, Graham and Powers (2013) that professors and experts have confirmed its validity. Reliability of questionnaire was confirmed by Cronbach's alpha and obtained in the three domains of cognitive, affective and behavioral respectively, 0.71, 0.75 and 0.76. Pearson correlation coefficient, t-test and ANOVA were used for data analysis. Results of the survey questions indicated that the cognitive level of students' energy literacy were low, but had well aspects in the affective and behavioral. Evaluate the performance of students based on age and gender showed that girls and boys in cognitive scores were significantly different.But there was no significant difference on affective and behavioral between girls and boys. And the differences in scores between each grade were relatively small.

Keywords: Energy literacy, Knowledge, Attitude, Behavior

INDUCED CHANGES IN VIBRATIONAL PROPERTIES OF NAH AND KH UNDER HYDROSTATIC PRESSURE

Hakima Boublenza, Mohamed Ferhat

The pressure induced phase transition from the NaC l to CsCl structure in NaH and KH has been investigated by means of first-principles calculations, and density functional linear-response theory. A pressure-induced soft- acoustic phonon mode is identified at 30 GPa, and 7.5 GPa for NaH and KH respectively. Phonon calculations suggest that the pressure induced instabilities of the transverse acoustic mode sat the [e00], and [ee0] directions are responsible for the phase transition of NaH and KH. Furthermore charge density analysis shows that there is charge transfer from the alkali ion to hydrogen (i.e.,Na-H, K-H) inducing B1–B2 phase transition.

Keywords: High pressure, Phonon

INCIDENCE OF PENICILLIN RESISTANT STREPTOCOCCUS PNEUMONIAE IN SPUTUM AMONG CHILDREN AND ELDERLY PNEUMONIC PATIENTS ATTENDING TWO MAJOR HOSPITALS IN KHARTOUM

Siham mohammed Sulieman Khaliel, Amira.Hamid. Adam EL-Nimair

The incidence of pneumococcal disease is particularly high among young children and the elderly. Streptococcus pneumoniae is one of the major causative agents of pneumonia. The emergence of antimicrobial resistance threatens the successful treatment. Penicillin resistance has been encountered with increasing frequency in strains of Streptococcus pneumonia around the world. We noticed that there are cases which were difficult to treat among patients attending two major hospitals in Khartoum State. Methods & Materials: Two hundred samples of sputum were collected from children (5-18 years) and elderly (above 60 years) (100 hundred from each group) .The samples were collected from patients diagnosed clinically as having pneumonia, attending two major hospitals in Khartoum. Standards methods were used for identification and determination of susceptibility to antibiotics. Different species of bacteria were isolated from (60%) of the samples that were collected from children and (40%) of the samples that were collected from elderly patients. Streptococcus pneumonia had been isolated from (20%) of the samples, 80% of the samples showed either no growth or growth of other types of bacteria. Complete resistance to penicillin was detected by using oxicillin discs in (7.5%) of the isolates of Streptococcus pneumonia. (12.5%) of the samples showed intermediate resistance and (80%) of the samples were sensitive to oxacillin. The prevalence of penicillin-resistant S pneumoniae in Khartoum is high (7.5%). although it is lower than that which had been reported in other some African and Asian countries. Effective practical methods for controlling microbial resistance to penicillin need to be developed.

Keywords: Pneumonia , pencillinn resistant, Children and elderly patients

EVIDENCE OF A CONTINUOUS TRAP DISTRIBUTION IN THE ALPHA-ALUMINA D' PEAKS

Soraya BACHAOUI

The Thermally phenomena is a study tool and characterization of electrical defects in solids.The existence of the thermoluminescent (TL) during thermal heating of a solid excited previously, is an evidence of the existence of trapping levels [1]. The originality of this study is to provide various extensions to the simple model, they concern the definition of traps levels that can be characterized by a continuous distribution. This model is applied to the peak D 'of an alumina single crystal -alpha [2]. The modeling results in equations to determine the concentrations of charge carriers upon which the expression of the TL intensity. An estimate of solutions using a digital calculation process has been considered. This approach requires the evaluation of certain parameters, E: deep trap, ?: detrapping coefficient ?: trapping coefficient ?: coefficient of recombination, ??: the height between the trapping levels and ?: electron concentration trapped in snares (traps) disconnectés heat. The theoretical curves are numerically analyzed using the Gaussian distribution and then we proceed to comparison adjustments from the corresponding models for different numbers of levels. The results clearly show that the incorporation of the continuous distribution of traps gives better quality adjustments, particularly in the case of the model has two trapping levels.

Keywords: alpha alumina, thermoluminescence, continuous trap distribution, Gaussian distribution, pic dosimetric modeling

THEORETICAL STUDY OF STRUCTURAL, ELECTRONIC MAGNETIC AND STABILITIES PROPERTIES OF MNSN

Chibane Yassine

An investigation on structural, electronic, stabilities and magnetic properties of MnSn has been conducted using first principles calculations based on density functional theory (DFT) with the plane wave basis set as implemented in the QUANTUM-ESSPRESSO code. The exchange-correlation function was treated within the local spin density approximation (LSDA) of Perdew and Wang. The calculated lattice constant in zinc-blende structure is in good agreement with the available experimental results and the previous theoretical works. The band types and other properties are correctly estimated. Our material is predicted to be unstable with respect to their elemental components at zero pressure and temperature and he has a large magnetic moment in good agreement with other works.

Keywords: PW-PP, DFT, LSDA, Electronic properties, Thermodynamic properties, Mechanic properties Phonon, magnetic moment

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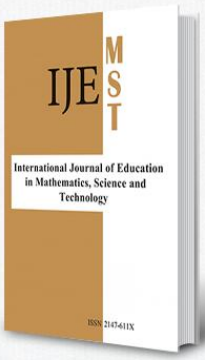

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